

# All the right connections!®

SPECIALISED WIRING ACCESSORIES LTD

# General Catalogue 2019

Trusted by installers since 1988



www.swaonline.co.uk

# **Company Profile**

## Welcome

We hope you enjoy looking through our Product Catalogue which embraces our comprehensive range of essential terminations, fastenings and tools for the electrical and construction industry.



## Service

Established in 1988 and with over 30 years' experience in the electrical industry, nobody is in a stronger position than SWA to offer a fast and professional service. Our sales team is always ready to answer any queries.

## **Products**

Finding the right quality products for your Company in an ocean of possibilities is something we pride ourselves on along with our belief in giving the best possible service.

## Quality

SWA products are manufactured under the most stringent quality control systems in full accordance with ISO 9001, ISO 14001 & OHSAS 18001 accreditations. Our Sales Team will answer any technical problems.

## Ordering

Processing orders couldn't be easier, either by phone, fax or on-line via our website. Stockists can be given a User Name & Password enabling them to place orders at any convenient time via: www.swaonline.co.uk

Ex stock goods are normally despatched next day throughout the UK.





## SWA for a fast and professional service...

- Established in 1988
- Over 100 years combined experience
- Committed to providing top-quality products & services, recognised by its ISO 9001, ISO 14001 and OHSAS 18001 accreditations
- Tool hire and repair services accredited to BS EN ISO 9001:2008
- Tensile testing facilities to ensure product performance and conformity
- Expanding product range suitable for a wide variety of applications
- Massive buying power assuring competitive prices
- Dedicated customer service team
- Commitment to technical innovation and new product development
- Able to source or manufacture non-stock items for specific requirements
- Located close to motorway network for speedy despatch of goods





# **Specialised Wiring Accessories Limited**



CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk



# Contents

## **Cable terminations**

## Cable glands & accessories

Pre-insulated terminals	1-16 🥜	Storm®
Bootlace ferrules	17-18 🎾	Earthin
Copper tube terminals	19-25	Tauras™
Copper tube splices	26	Cable g cable g
Copper reducing pin terminals	27	Cable g & hazar accesso
Shear-bolt connectors	28 🛒	Cable g
SELEKT-A-BOX™	29-31	Alumin
FIX-A-BOX	32-33	SmartFi cable gl
Terminal kit boxes	34-35 📷	Polyam
Fixing tubs	36 🦢	Cable Nylon c
Terminal connectors	37-39 👹	Special
Solar PV terminals & tools	40-41	Nylon c
Fire safety products		Stainle
Firefly™ products	44-52	Stainle: & buckl
Cable ties	53	Firefly™
Fixing band & buckles	54 (J	Cable c
Mineral-insulated products & FP200 fire protection cable accessories	55-58	Fixing k

Storm <sup>®</sup> cable glands	59	
Earthing nut™	60	Q
Tauras™ cable glands	61-69	14
Cable glands & hazardous area cable glands	70-81	
Cable glands accessories & hazardous area cable gland accessories	82-84	8
Cable gland sizing charts	85-88	Ś
Aluminium cable glands	89	-11
SmartFit™ & consumer unit cable glands	90-93	()
Polyamide & EMC cable glands	94-96	12

## Cable fixings

6		Nylon cable ties	97-100	
9	86	Special application cable ties	101	-
1	10	Nylon cable tie accessories	102-103	B.
		Stainless steel cable ties	104	Sale and
2		Stainless steel fixing band & buckles	105	0
3	A ST	Firefly™ cable cleats	106	*
4	a	Cable cleats	107-111	9
8	0	Fixing band	112	0



FOR FURTHER INFORMATION GO ONLINE AT **www.swaonline.co.uk** 

# Contents

<b>Heatshrink &amp; insulation</b>			Tooling	
Heatshrink	113-121		Tool hire solutions	166 巓
Insulation sleeving	122-123		Hand ratchet crimping tools	167-169 岁
Cable management			Hand cutting tools	170
Spiral wrap binding and cable jacketing	125		Hand wire strippers / conduit cutters / cable tie tools	171
Flexible conduit	126-127	//•	Impact & data tools	172 🎤
Cable jointing			Large hand crimping tools	173
LLFA® compression tape	129-131	R	Large hand cutting tools	174
Cellpack – cast-resin cable joints	132-153		Hydraulic crimping tools	175 🖌
Heatshrink cable joint kits	154	-	Hydraulic cutting tools / crimping heads / cutting heads	176
Mechanical connectors	155-158	Si a	Hydraulic & electric pumps	177 🚂
Cable jointing accessories	159		Power tools (battery) / batteries / chargers	178 管
Cable handling			Mains crimp tools / hot air guns	179 🚂
Cable handling	161-164	I MI	Hexagonal die sets selection char	t 180 製
			Earthing components & a	ccessories

Earthing protection	181-184	
Earthing accessories	185-186	7



# Contents

Tapes, sealants, lubricants	s & hole	saws	
LLFA <sup>®</sup> compression tape	187-188	2	
Tapes	189-191		
Compounds	192	$\wedge$	
Lubricants	193		(
Hole saws and accessories	194	Ser.	0
Industrial aerosol produc	ts		P
Lubricants and protection sprays	s 195		
Cleaning sprays and line marking paint	196		
Sundries			
Stud extensions / screws / warning labels	197	/1]	
Constant force springs / hose clamps	198	Ĝa	
Definitions			
Degree of ingress protection (IP rating)	199	SWA'	
Hazardous area classifications / protection concepts	200	SWA	
Terms & conditions of sale	201	SWA	





FOR FURTHER INFORMATION GO ONLINE AT **www.swaonline.co.uk** 

# New to this edition

#### **COP650TOOL-KIT**



## **Red Roller-Ball Ties**

## **In-Line Connectors**



## **STORM Cable Glands**

## **Firefly Products**



## **ALT Cable Glands**



## **Hazardous Area Plugs**



Page 164

Selekt-A-Rod

## **PVC Sleeving 5M Packs**

Page 59

# Page 122

## **Power Tools**

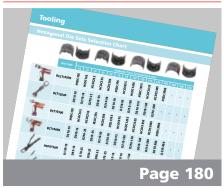


Page 70 & 74

#### **Universal Gel Box**



## **Die Selection Chart**





CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk



- Pre-insulated terminals 1-16
  - **Bootlace ferrules** 17-18
- **Copper tube terminals** 19-25
  - **Copper tube splices** 26
- **Copper reducing pin terminals** 27
  - **Shear-bolt connectors** 28
    - **SELEKT-A-BOX™** 29-31
      - **FIX-A-BOX** 32-33
    - Terminal kit boxes 34-35
      - Fixing tubs 36
    - Terminal connectors 37-39
  - Solar PV terminals & tools 40-41



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

## **Pre-insulated terminals**

## **Ring Terminals**



Wire Range	Part No.	Dimensions in mm							
mm <sup>2</sup> (AWG)	Fart NO.	D1	D3	D4	L	L1	D2		
	32RER	1.8	5.5	4.3	13.7	10	3.2		
	37RER	1.8	6.6	4.3	15.5	10	3.7		
	43RER	1.8	8.0	4.3	16.2	10	4.3		
0.5-1.5	53RER	1.8	8.0	4.3	16.7	10	5.3		
(22-16)	65RER	1.8	11.0	4.3	20.4	10	6.5		
	85RER	1.8	12.0	4.3	20.2	10	8.5		
	10RER	1.8	14.5	4.3	25.1	10	10.0		

Pack Quantity: 100

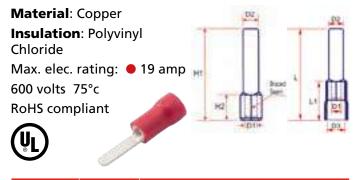
## **Fork Terminals**



Wire Range	ge Part No. Dimensions in mm							
mm <sup>2</sup> (AWG)	Fart NU.	D1	D3	D4	L	L1	D2	
	32RF	1.8	5.7	4.3	15.3	10	3.2	
	37RF	1.8	6.4	4.3	15.3	10	3.7	
0.5-1.5	43RF	1.8	6.4	4.3	15.8	10	4.3	
(22-16)	53RF	1.8	7.5	4.3	16.4	10	5.3	
	65RF	1.8	8.5	4.3	19.7	10	6.5	

Pack Quantity: 100

## **Blade Terminals**



Wire Range	Part No.	Dimensions in mm								
mm <sup>2</sup> (AWG)	Fart NO.	D1	D3	L	L1	D2	H1	H2		
	10RB	1.8	4.3	20.0	10.0	2.3	15.5	5.5		
0.5-1.5	18RB	1.8	4.3	28.0	10.0	2.5	23.5	5.5		
(22-16)										

Pack Quantity: 100

## **Pin Terminals**



Wire Range	Part No.			Dimen	sions	in mm	۱		
mm <sup>2</sup> (AWG)	Fart NO.	D1	D4	L	L1	D2	H1	H2	
	95RP	1.8	4.3	19.0	10.0	1.9	14.6	5.5	
0.5-1.5	12RP	1.8	4.3	22.0	10.0	1.9	17.6	5.5	
(22-16)									

1

Pack Quantity: 100

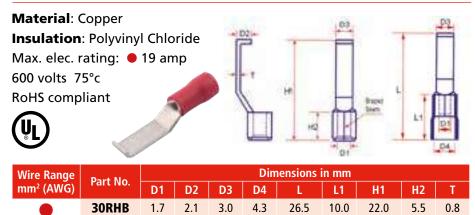
Vibration resistant versions available on request (subject to M.O.Q).

Non-insulated & Non-insulated High Temperature Terminals available on request (subject to M.O.Q).



## **Pre-insulated terminals**

## **Hooked Blade**



To keep up to date with **new products** and **special offers** go online at

www.swaonline.co.uk

**Vibration resistant version available on request** (subject to M.O.Q).

Pack Quantity: 100

0.5-1.5

(22-16)

#### **Female Push-on**

46RHB

Material: Brass - Tin Plated Insulation: Polyvinyl Chloride Max. elec. rating: • 10 amp 300 volts 75°c Vibration resistant RoHS compliant

1.7

2.1

4.6

4.3

26.0

10.0

Dú

22.0

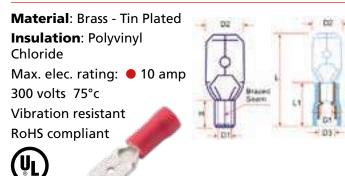
5.5

0.8

Wire Range	Part No.			Dim	ensio	ns in	mm	
mm <sup>2</sup> (AWG)	Fart NO.	D1	D2	D3	Н	L	L1	Tab size
	28RFP	1.8	3.2	4.3	5.5	19.0	10.0	2.8 x 0.5
	28RFPX	1.8	3.5	4.3	5.5	19.0	10.0	2.8 x 0.8
0.5-1.5	48RFP	1.8	5.5	4.3	5.5	19.0	10.0	4.8 x 0.5
(22-16)	48RFPX	1.8	5.5	4.3	5.5	19.0	10.0	4.8 x 0.8
	63RFP	1.8	6.6	4.3	5.5	20.5	10.0	6.3 x 0.8

Pack Quantity: 100

#### Male Push-on



Wire Range	Part No.			Dim	ensio	ns in	mm	
mm <sup>2</sup> (AWG)	Fart NO.	D1	D2	D3	Н	L	L1	Tab size
	28RMP	1.8	2.8	4.3	5.5	19.6	10.0	2.8 x 0.5
0.5-1.5	48RMP	1.8	4.8	4.3	5.5	18.6	10.0	4.8 x 0.5
(22-16)	63RMP	1.8	6.3	4.3	5.5	21.0	10.0	6.3 x 0.8

Pack Quantity: 100

**Un-insulated Female Push-on Terminals available on request** (subject to M.O.Q).



**Un-insulated Male Push-on Terminals available on request** (subject to M.O.Q).

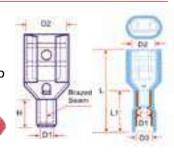




## **Pre-insulated terminals**

## **Fully Insulated Female Push-on**

Material: Brass - Tin Plated Insulation: Polyvinyl Chloride Max. elec. rating: ● 10 amp 300 volts 75°c Vibration resistant RoHS compliant

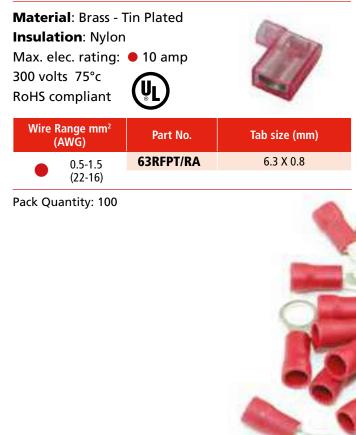


Wire Range	Part No.		Dimensions in mm								
mm <sup>2</sup> (AWG)	Fart NU.	D1	D2	D3	Н	L	L1	Tab size			
	28RFPT	1.8	3.2	4.3	5.5	20.0	10.0	2.8 X 0.5			
	28RFPTX	1.8	3.5	4.3	5.5	20.0	10.0	2.8 X 0.8			
0.5-1.5	48RFPT	1.8	5.5	4.3	5.5	20.0	10.0	4.8 X 0.5			
(22-16)	48RFPTX	1.8	5.5	4.3	5.5	20.0	10.0	4.8 X 0.8			
	63RFPT	1.8	6.6	4.3	5.5	21.5	10.5	6.3 X 0.8			

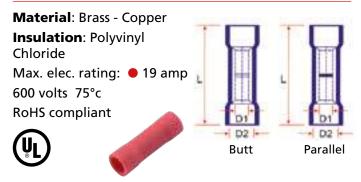
Pack Quantity: 100

Uı

## **Flag Female Push-on**



## **Butt & Parallel Splices**



#### **Butt Splices**

Wire Range mm <sup>2</sup> (AWG)		Part No.	Dimensions in mm				
			D1	D2	L		
	0.5-1.5	15BSL	1.8	4.3	24.5		
	(22-16)						

Pack Quantity: 100

#### **Parallel Splices**

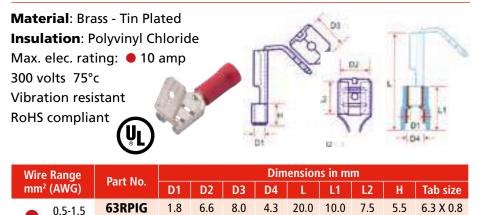
Wire Range		Part No.	Dimensions in mm				
mm <sup>2</sup>	² (AWG)	Part NO.	D1	D2	L		
	0.5-1.5	15PSL	1.7	3.3	16.0		
	(22-16)						

Pack Quantity: 100

Butt and parallel splices are available in vibration resistant versions (subject to M.O.Q).

## **Pre-insulated terminals**

#### Piggy Back – Push-on



To see a video explaining techniques and best practice scan the QR code



Un-insulated Piggy Back Terminals available on request (subject to M.O.Q).



#### **Heatshrink Butt Splice Connectors**

Material: Copper, Tubular Insulation: High Density Polyethylene Max. elec. rating: ● 19 amp 600 volts Heat shrink temp 150°c Resistant temp -10°c to +105°c RoHS compliant

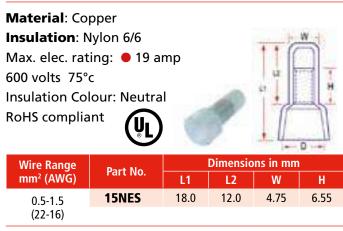
Wire Range		Part No.	Dimensions in mm			
mm <sup>2</sup>	² (AWG)	Fart NO.	L	D1		
	0.5-1.5	15BSL/HS	35	1.8		
	(22-16)					

Pack Quantity: 100

(22 - 16)

Pack Quantity: 100

#### **End Splices**



Pack Quantity: 100

#### **Snap Connectors**

**Material**: Brass, Tin Plated **Insulation**: Polypropylene 600 volts 105°c

**Snap-connectors** provide quick, reliable connections with a quick snap and squeeze

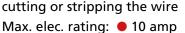
- No special tools needed no cable stripping required simply squeeze and snap-fit
- Colour coded for easy identification
- A dependable and reliable electrical connection

Max. elec. rating: • 10 amp

Wire Range	Part No.	Dimensions in mm			
mm² (AWG)		W	L		
0.5-1.0	SC1.5	19.0	29.0		
(22-18)					

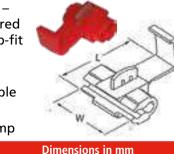
Pack Quantity: 100

Tap Nylon InsulatedSelf-Stripping connectorsused to electrically tap intoa wire in mid-span without



Wire Range mm <sup>2</sup> (AWG)		Part No.	Dimensions in mm			
		Fart NO.	W	L		
	0.5-1.0	SC1.5/TAP	10.0	38.0		
	(22-18)					

Pack Quantity: 100



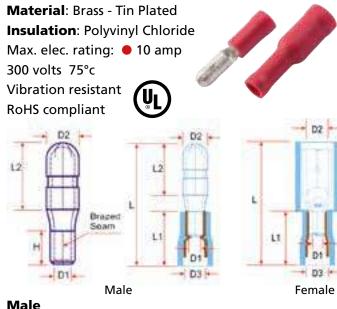
4 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk

01



## **Pre-insulated terminals**

#### **Bullets (Male/Female)**



## **Modular Plugs and Plug Covers**



Part No.	Description							
RJ45-8A2	Modular Plug (stranded wire)							
RJ45-8A3	Modular Plug (stranded wire or solid wire)							
RJ45-60GY	Grey Plug Cover							
RJ45-60R	Red Plug Cover							

Pack Quantity: 100

1	marc										
	Wire Range mm² (AWG)		Dort No	Dimensions in mm							
			Part No.	D1	D2	D3	L	L1	L2	Н	
		0.5-1.5	4RBM	1.8	4.0	4.3	20.7	10.0	8.5	5.5	
		0.5-1.5 (22-16)									

Pack Quantity: 100

#### Female

Wire Range		Part No.	Dimensions in mm							
mm <sup>2</sup>	² (AWG)		D1	D2	D3	L	L1	L2	Н	
	0.5-1.5	4RSF	1.8	4.0	4.3	23.6	10.5	7.3	5.5	
	(22-16)									

Pack Quantity: 100

#### Tools to crimp modular plugs and plug covers:

MCK (see page 172) MCT (see page 172) IPDT-KR (see page 172) MCT MCT MCT MCT MCT MCK

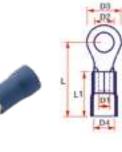
**CCS359** 



## **Pre-insulated terminals**

## **Ring Terminals**

Material: Copper Insulation: Polyvinyl Chloride Max. elec. rating: • 27 amp 600 volts 75°c RoHS compliant



Wire Range	Part No.	Dimensions in mm									
mm <sup>2</sup> (AWG)	Part NO.	D1	D3	D4	L	L1	D2				
	32BER	2.3	5.5	4.8	15.5	10	3.2				
	37BER	2.3	6.6	4.8	15.6	10	3.7				
	43BER	2.3	8.0	4.8	15.9	10	4.3				
1.5-2.5	53BER	2.3	8.0	4.8	16.9	10	5.3				
(16-14)	65BER	2.3	10.5	4.8	20.8	10	6.5				
	85BER	2.3	12.0	4.8	21.4	10	8.5				
	10BER	2.3	14.5	4.8	23.6	10	10.0				

Pack Quantity: 100

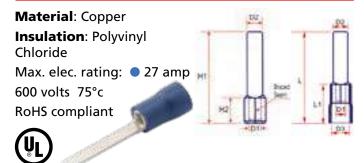
## **Fork Terminals**



Wire Range	Part No.		Dimensions in mm								
mm <sup>2</sup> (AWG)	Fart NO.	D1	D3	D4	L	L1	D2				
	32BF	2.3	6.0	4.8	16.0	10	3.2				
	37BF	2.3	6.4	4.8	15.7	10	3.7				
1.5-2.5	43BF	2.3	6.4	4.8	16.1	10	4.3				
(16-14)	53BF	2.3	8.5	4.8	16.2	10	5.3				
	65BF	2.3	11.0	4.8	20.1	10	6.5				

Pack Quantity: 100

## **Blade Terminals**



Wire Range	mm <sup>2</sup> (AWG)	Dimensions in mm								
mm <sup>2</sup> (AWG)		D1	D3	L	L1	D2	H1	H2		
	9BB	2.3	4.8	20.0	10.0	2.3	15.5	5.5		
1.5-2.5	18BB	2.3	4.8	28.0	10.0	2.5	23.5	5.5		
(16-14)										

Pack Quantity: 100

## **Pin Terminals**

Material: Copper Insulation: Polyvinyl Chloride Max. elec. rating: • 27 amp 600 volts 75°c RoHS compliant

Wire Range	Part No.	Dimensions in mm								
mm <sup>2</sup> (AWG)	Falt NU.	D1	D4	L	L1	D2	H1	H2		
	95BP	2.3	4.7	19.0	10.0	1.9	14.6	5.5		
1.5-2.5	12BP	2.3	4.7	22.0	10.0	1.9	17.6	5.5		
(16-14)										

Pack Quantity: 100

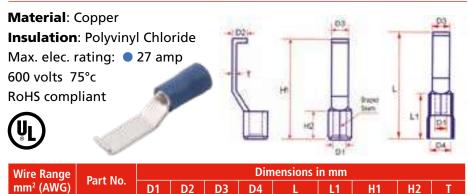
Vibration resistant versions available on request (subject to M.O.Q).

Non-insulated & Non-insulated High Temperature Terminals available on request (subject to M.O.Q).



## **Pre-insulated terminals**

## **Hooked Blade**



To keep up to date with new products and **special offers** go online at www.swaonline.co.uk

Vibration resistant versions available on request (subject to M.O.Q).

Pack Quantity: 100

1.5-2.5 (16-14)

#### **Female Push-on**

Material: Brass - Tin Plated Insulation: Polyvinyl Chloride Max. elec. rating: • 15 amp 300 volts 75°c Vibration resistant **RoHS** compliant

**30BHB** 

**46BHB** 

2.3

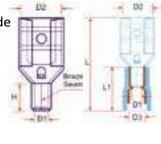
2.3

2.1

2.1

3.0

4.6



26.5

26.5

10.0

10.0

4.8

4.8

22.0

22.0

5.5

5.5

0.8

0.8

り

Wire Range	Dart No	Dimensions in mm							
mm <sup>2</sup> (AWG)	Part No.	D1	D2	D3	Н	L	L1	Tab size	
	28BFP	2.3	4.8	4.8	5.5	13.8	10.0	2.8 X 0.5	
1.5-2.5 (16-14)	28BFPX	2.3	4.8	4.8	5.5	14.3	10.0	2.8 X 0.8	
	48BFP	2.3	5.5	4.8	5.5	19.0	10.0	4.8 X 0.5	
	48BFPX	2.3	5.5	4.8	5.5	19.0	10.0	4.8 X 0.8	
	63BFP	2.3	6.6	4.8	5.5	20.5	10.0	6.3 X 0.8	

Pack Quantity: 100

#### **Male Push-on**



wire kange	Part No	D1 D2 D3 H L L1 Tab size							
mm <sup>2</sup> (AWG)	Part NO.	D1	D2	D3	Н	L	L1	Tab size	
	48BMP	2.3	4.8	4.8	5.5	13.8	10.0	4.8 X 0.5	
1.5-2.5	63BMP	2.3	6.3	4.8	5.5	16.2	10.0	6.3 X 0.8	
(16-14)									

Pack Quantity: 100

**Un-insulated Female Push-on Terminals available on request** (subject to M.O.Q).



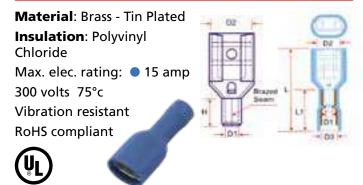
**Un-insulated Male Push-on Terminals available on request** (subject to M.O.Q).





## **Pre-insulated terminals**

#### **Fully Insulated Female Push-on**



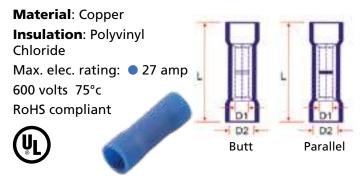
	Wire Range	Part No.	Dimensions in mm							
	mm <sup>2</sup> (AWG)	Fart NO.	D1	D2	D3	Н	L	L1	Tab size	
1.5-2.5	48BFPT	2.3	5.0	4.8	5.5	20.0	10.0	4.8 X 0.5		
	48BFPTX	2.3	5.0	4.8	5.5	20.0	10.0	4.8 X 0.8		
	63BFPT	2.3	6.6	4.8	5.5	21.5	10.5	6.3 X 0.8		
	(16-14)									

Pack Quantity: 100

## **Flag Female Push-on**



## **Butt & Parallel Splices**



#### **Butt Splices**

Wire Range		Part No.	Dimensions in mm					
mm <sup>2</sup>	(AWG)	Fall NO.	D1	D2	L			
	1.5-2.5	25BSL	2.3	4.8	24.5			
	(16-14)							

Pack Quantity: 100

#### **Parallel Splices**

Wire Range		Part No.	Dimensions in mm					
mm <sup>2</sup>	² (AWG)	rait NO.	D1	D2	L			
	1.5-2.5	25PSL	2.3	4.0	16.0			
	(16-14)							

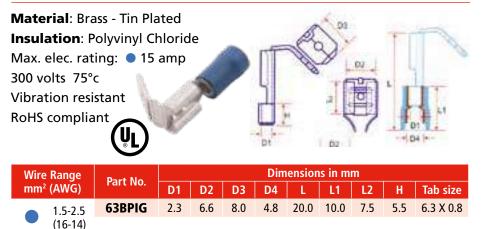
Pack Quantity: 100

Butt and parallel splices are available in vibration resistant versions (subject to M.O.Q).



## **Pre-insulated terminals**

## **Piggy Back – Push-on**



To see a video explaining techniques and best practice scan the QR code



Un-insulated Piggy Back Terminals available on request (subject to M.O.Q).

Pack Quantity: 100

#### **Heatshrink Butt Splice Connectors**

 Material: Copper, Tubular

 Insulation: High Density Polyethylene

 Max. elec. rating: • 27 amp

 600 volts
 Heat shrink temp 150°c

 Resistant temp -10°c to +105°c

 RoHS compliant

 Wire Range mm² (AWG)

 Part No.

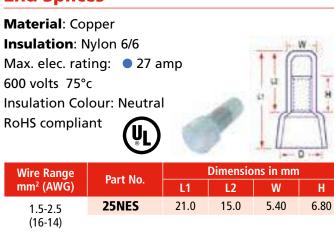
 L
 D1

 
 mm² (AWG)
 L
 D1

 1.5-2.5 (16-14)
 25BSL/HS
 35
 2.3

Pack Quantity: 100

## **End Splices**



Pack Quantity: 100

#### **Snap Connectors**

**Material**: Brass, Tin Plated **Insulation**: Polypropylene 600 volts 105°c

**Snap-connectors** provide quick, reliable connections with a quick snap and squeeze

- No special tools needed no cable stripping required simply squeeze and snap-fit
- Colour coded for easy identification
- A dependable and reliable electrical connection

Max. elec. rating: • 15 amp

Wire Range		Davt No	Dimensions in mm				
mn	n² (AWG)	Part No.	W	L			
	0.75-2.5	SC2.5	19.0	29.0			
	(18-14)						

Pack Quantity: 100

Tap Nylon Insulated Self-Stripping connectors used to electrically tap into a wire in mid-span without cutting or stripping the wire

Max. elec. rating: • 27 amp

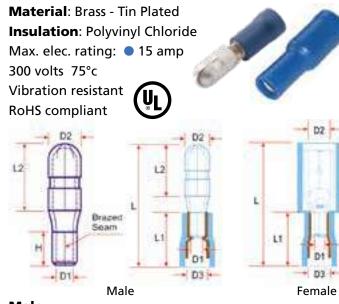
Wire Range	Part No.	Dimensions in mm				
mm <sup>2</sup> (AWG)	Fart NO.	W	L			
0.75-2.5	SC2.5/TAP	10.0	38.0			
(18-14)						

Pack Quantity: 100



## **Pre-insulated terminals**

#### **Bullets (Male/Female)**



## **Modular Plugs and Plug Covers**



Description
Modular Plug (stranded wire)
Modular Plug (stranded wire or solid wire)
Grey Plug Cover
Blue Plug Cover

Pack Quantity: 100

Male

Wire Range		Part No.	Dimensions in mm							
mm	² (AWG)	Fart NO.	D1	D2	D3	L	L1	L2	Н	
1.	1.5-2.5	4BBM	2.3	4.0	4.8	20.5	10.0	8.5	5.5	
	(16-14)	50BBM	2.3	5.0	4.8	21.0	10.0	8.5	5.5	

Pack Quantity: 100

#### Female

Wire Range		Part No.	Dimensions in mm							
mm <sup>2</sup>	m² (AWG)	D1	D2	D3	L	L1	L2	Н		
1.5-2.5	4BSF	2.3	4.0	4.3	23.6	11.5	7.3	5.5		
	(16-14)	50BSF	2.3	5.0	4.8	23.6	11.5	7.0	5.5	

Pack Quantity: 100

#### Tools to crimp modular plugs and plug covers:

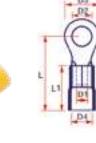
MCK (see page 172) MCT (see page 172) IPDT-KR (see page 172) CCS359 (see page 172) МСТ МСК **IPDT-KR CCS359** 



## **Pre-insulated terminals**

## **Ring Terminals**

Material: Copper Insulation: Polyvinyl Chloride Max. elec. rating: • 48 amp 600 volts 75°c RoHS compliant



Wire Range	Part No.	Dimensions in mm						
mm <sup>2</sup> (AWG)	Fart NO.	D1	D3	D4	L	L1	D2	
	32YER	3.5	7.2	6.5	22.2	13.5	3.2	
	37YER	3.5	7.2	6.5	22.2	13.5	3.7	
	43YER	3.5	9.5	6.5	22.2	13.5	4.3	
-	53YER	3.5	9.5	6.5	22.2	13.5	5.3	
4-6	65YER	3.5	11.0	6.5	23.5	13.5	6.5	
(12-10)	85YER	3.5	14.0	6.5	27.0	13.5	8.5	
	10YER	3.5	15.0	6.5	30.0	13.5	10.0	
	12YER	3.5	19.0	6.5	30.0	13.5	13.0	

Pack Quantity: 100

## **Fork Terminals**



Wire Range			Dimensions in mm							
mm <sup>2</sup> (AWG)	Fart NU.	D1	D3	D4	L	L1	D2			
	37YF	3.5	6.4	6.5	20.8	13.5	3.7			
	43YF	3.5	7.1	6.5	21.0	13.5	4.3			
4-6	53YF	3.5	9.5	6.5	21.6	13.5	5.3			
(12-10)	65YF	3.5	12.0	6.5	24.9	13.5	6.5			

Pack Quantity: 100

## **Blade Terminals**

Material: Copper	DU	.02
<b>Insulation</b> : Polyvinyl Chloride		Î
Max. elec. rating: 🗕 48 amp 🖕		
600 volts 75°c	and and	T
RoHS compliant	+2	1
	+:01+	100

Wire Range	Part No.		Dimensions in mm						
mm <sup>2</sup> (AWG)	Fart NO.	D1	D3	L	L1	D2	H1	H2	
	10YB	3.5	6.5	23.5	13.5	3.0	16.7	6.5	
4-6	16YB	3.5	6.5	29.5	13.5	4.8	22.5	6.5	
(12-10)	18YB	3.5	6.5	31.5	13.5	2.1	24.5	6.5	

Pack Quantity: 100

## **Pin Terminals**

<b>Insulation</b> Chloride Max. elec. r 600 volts 7	Material: Copper Insulation: Polyvinyl Chloride Max. elec. rating: • 48 amp 600 volts 75°c RoHS compliant							28 E
Wire Range	Davit Ma			Dimen	sions	in mn	n	
mm <sup>2</sup> (AWG)	Part No.	D1	D4	L	L1	D2	H1	H2
•	14YP	3.5	6.6	28.0	13.5	2.7	21.0	6.5
4-6								
(12-10)								

Pack Quantity: 100

Vibration resistant versions available on request (subject to M.O.Q).

Non-insulated & Non-insulated High Temperature Terminals available on request (subject to M.O.Q).

3.4

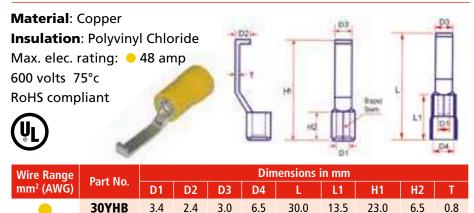
3.4

2.4

2.4

## **Pre-insulated terminals**

## **Hooked Blade**



3.0

4.6

6.5

30.0

13.5

23.0

To keep up to date with new products and special offers go online at www.swaonline.co.uk

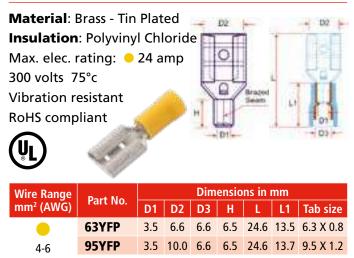
Vibration resistant versions available on request (subject to M.O.Q).

Pack Quantity: 100

4-6 (12-10)

#### **Female Push-on**

**46YHB** 



(12-10)Pack Quantity: 100 Male Push-on

0.8

0.8

6.5

Material:	Material: Brass - Tin Plated							
Insulation	: Polyviny	l Chl	orid	e /=	E		1	T Th
Max. elec. rating: • 24 amp 300 volts 75°c Vibration resistant RoHS compliant								
Wire Range	Part No.			Dim	ensio	ns in I	mm	
mm <sup>2</sup> (AWG)	Part NO.	D1	D2	D3	Н	L	L1	Tab size
•	63YMP	3.5	6.3	6.6	6.5	25.0	13.4	6.3 X 0.8
4-6								
(12-10)								

Pack Quantity: 100

**Un-insulated Female Push-on Terminals available on request** (subject to M.O.Q).



**Un-insulated Male Push-on Terminals available on request** (subject to M.O.Q).



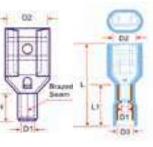
CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk 12



## **Pre-insulated terminals**

## **Fully Insulated Female Push-on**

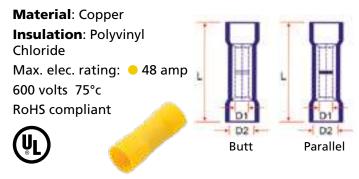




Wire Range	Part No.		Dimensions in mm						
mm <sup>2</sup> (AWG)	rait NO.	D1	D2	D3	Н	L	L1	Tab size	
	63YFPT	3.5	6.6	6.0	6.5	23.5	13.7	6.3 X 0.8	
4-6	95YFPT	3.5	10.0	6.0	6.5	30.0	13.7	9.5 X 1.2	
(12-10)									

Pack Quantity: 100

#### **Butt & Parallel Splices**



#### **Butt Splices**

Wire	Range	Part No.	Dimensions in mm				
mm <sup>2</sup>	(AWG)	Fart NO.	D1	D2	L		
	4-6	6BSL	3.5	6.6	26.0		
-	(12-10)						

Pack Quantity: 100

#### **Parallel Splices**

	Range	Part No.	Dimensions in mm					
mm <sup>2</sup>	(AWG)	Fart NO.	D1	D2	L			
	4-6	6PSL	3.4	5.5	20.5			
-	(12-10)							

Pack Quantity: 100

Butt and parallel splices are available in vibration resistant versions (subject to M.O.Q).

#### **Piggy Back – Push-on**

Material: Brass - Tin Plated Insulation: Polyvinyl Chloride Max. elec. rating: • 24 amp 300 volts 75°c Vibration resistant RoHS compliant

	e Range	Part No.	Dimensions in mm								
mm	<sup>2</sup> (AWG)	Fart NU.	D1	D2	D3	D4	L	L1	L2	Н	Tab size
	4-6	63YPIG	3.5	6.6	8.0	6.5	24.0	13.5	7.5	6.5	6.3 X 0.8
-	(12-10)										

To see a video explaining techniques and best practice scan the QR code



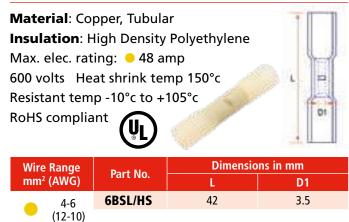
Un-insulated Piggy Back Terminals available on request (subject to M.O.Q).

Pack Quantity: 100



## **Pre-insulated terminals**

#### **Heatshrink Butt Splice Connectors**



Pack Quantity: 100

## **End Splices**



Wire Range	Davt Ma	Dimensions in mm						
mm <sup>2</sup> (AWG)	Part No.	L1	L2	W	Н			
4-6	6NES	25.0	15.5	7.22	8.0			
(12-10)								

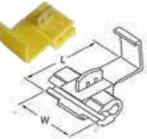
Pack Quantity: 100

## **Snap Connectors**

**Material**: Brass, Tin Plated **Insulation**: Polypropylene 600 volts 105°c

**Snap-connectors** provide quick, reliable connections with a quick snap and squeeze

- No special tools needed no cable stripping required simply squeeze and snap-fit
- Colour coded for easy identification
- A dependable and reliable electrical connection



	Dime
Max. elec. rating:	<mark>e</mark> 24 amp

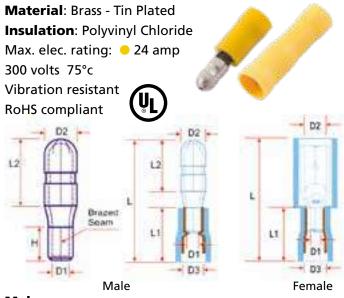
	Range	Part No.	Dimensio	ns in mm
mm <sup>2</sup>	(AWG)	Fart NO.	W	L
	4-6	SC6	19.0	34.0
	(12-10)			

Pack Quantity: 100



## **Pre-insulated terminals**

## **Bullets (Male/Female)**



## **Modular Plugs and Plug Covers**



Part No.	Description
RJ45-8A2	Modular Plug (stranded wire)
RJ45-8A3	Modular Plug (stranded wire or solid wire)
RJ45-60GY	Grey Plug Cover
RJ45-60Y	Yellow Plug Cover

Pack Quantity: 100

Malo

	viaic									
	Wire	Range	Part No.		D	imen	sions	in mr	n	
	mm <sup>2</sup>	(AWG)	Fart NO.	D1	D2	D3	L	L1	L2	Н
1		4-6	50YBM	3.5	5.0	6.6	25.0	13.5	8.5	6.5
_		(12-10)								

Pack Quantity: 100

#### Female

Wire	Range	Daut Ma		D	imen	sions	in mr	n	
mm <sup>2</sup>	(AWG)	Part No.	D1	D2	D3	L	L1	L2	Н
	4-6	50YSF	3.5	5.0	6.5	26.7	13.8	7.0	6.5
	(12-10)								

Pack Quantity: 100

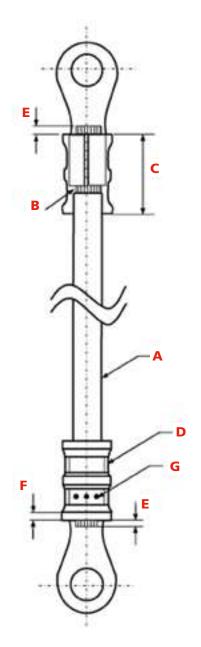
#### Tools to crimp modular plugs and plug covers:





## **Pre-insulated terminals**

## **Crimping Procedure for Pre-insulated Terminals**



- A Cut wire to length
- **B** Strip the wire ends, ensuring the insulation is removed cleanly and square with the axis with no breaking or nicking of visible wire ends
- C Use the recommended stripped length appropriate to the connector being used, ensuring all strands are inserted fully into the crimp barrel
- **D** Ensure the selected crimp die is suitable for the correct combination of conductor and terminal being used
- **E** Insert conductor, stripped, to a length that leaves approximately 1mm visible at front of barrel
- F. Position the die such as to leave approximately 1mm of barrel to form a bell mouth at the front of the barrel
- G Check the correct dot code or die identification is being used
- Ensure the tool and dies are calibrated and н maintained in a serviceable condition in line with SWA's operating instructions

To see a video explaining techniques and best practice scan the QR code





## **Bootlace ferrules**

## **Insulated Bootlace Ferrules**

Material: Electrolytic Copper

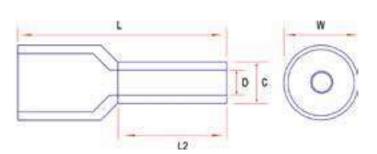
Insulation: Polypropylene (PP)

**RoHS** compliant

Resistance to external agents - good resistance to bases and weak acids. Limited resistance to strong oxidising acids, oil and mineral oils. Not resistant to chlorinated solvents.

#### POLYPROPYLENE

Working Temp: -40°C to +105°C Voltage: Max 300V



French – T-	Range	German – K	-Range			Dim	ensions in	mm	
Part No.	Colour	Part No.	Colour	mm²	L	С	D	L2	W
0.25-8IBLF/T	Violet	N/A	N/A	0.25	12.4	1.0	0.7	8.0	2.5
0.3-6IBLF/T	Pink	0.3-6IBLF/K	Turquoise	0.30	10.4	1.1	0.8	6.0	2.5
0.50-8IBLF/T	White	0.50-8IBLF/K	Orange	0.50	14.0	1.3	1.0	8.0	2.6
0.75-8IBLF/T	Blue	0.75-8IBLF/K	White	0.75	14.3	1.5	1.2	8.0	2.8
1.0-8IBLF/T	Red	1.0-8IBLF/K	Yellow	1.0	14.3	1.7	1.4	8.0	3.0
1.5-8IBLF/T	Black	1.5-8IBLF/K	Red	1.5	14.3	2.0	1.7	8.0	3.5
2.5-8IBLF/T	Grey	2.5-8IBLF/K	Blue	2.5	15.4	2.6	2.3	8.0	4.0
2.5-18IBLF/T	Grey	2.5-18IBLF/K	Blue	2.5	25.4	2.6	2.3	18.0	4.0
4.0-9IBLF/T	Orange	4.0-9IBLF/K	Grey	4.0	16.4	3.2	2.8	9.0	4.5
4.0-18IBLF/T	Orange	4.0-18IBLF/K	Grey	4.0	25.4	3.2	2.8	18.0	4.5
6.0-12IBLF/T	Green	6.0-12IBLF/K	Black	6.0	20.5	3.9	3.5	12.0	6.0
6.0-18IBLF/T	Green	6.0-18IBLF/K	Black	6.0	26.5	3.9	3.5	18.0	6.0
10-12IBLF/T	Brown	10-12IBLF/K	lvory	10	20.8	4.9	4.5	12.0	7.5
10-18IBLF/T	Brown	10-18IBLF/K	lvory	10	26.8	4.9	4.5	18.0	7.5
16-12IBLF/T	lvory	16-12IBLF/K	Green	16	22.0	6.2	5.8	12.0	8.7
16-18IBLF/T	lvory	16-18IBLF/K	Green	16	28.0	6.2	5.8	18.0	8.7
25-16IBLF/T	Black	25-16IBLF/K	Brown	25	28.0	7.9	7.5	16.0	11.0
35-25IBLF/T	Red	35-25IBLF/K	Beige	35	39.0	8.7	8.3	25.0	12.5
50-20IBLF/T	Blue	50-20IBLF/K	Olive	50	36.0	10.9	10.3	20.0	15.0
70-20IBLF/T	Yellow	70-20IBLF/K	Yellow	70	37.0	14.3	13.5	20.0	16.0
95-25IBLF/T	Red	95-25IBLF/K	Red	95	44.0	15.6	14.8	25.0	18.5

Pack Quantity: 100, except 70 & 95 – Pack Quantity: 50

Larger sizes available on request (subject to M.O.Q).

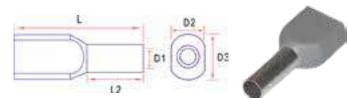
See pages 168 and 169 for recommended tooling.



## **Bootlace ferrules**

## Insulated Bootlace Ferrules – Twin Entry

Voltage: Max 300V



				Dim	ensions in	mm	
Part No.	Colour	mm²	L	D1	D2	D3	L2
0.50-8IBLF/2	White	0.50	14.5	1.50	3.68	5.50	8.0
0.75-8IBLF/2	Grey	0.75	14.7	1.80	3.74	5.50	8.0
1.0-8IBLF/2	Red	1.00	15.0	2.05	4.13	5.50	8.0
1.5-8IBLF/2	Black	1.50	15.5	2.30	4.65	6.40	8.0
2.5-8IBLF/2	Blue	2.50	19.5	2.80	5.14	8.72	8.0
4.0-9IBLF/2	Grey	4.00	20.2	3.80	6.33	9.60	9.0
6.0-14IBLF/2	Yellow	6.00	26.0	4.90	7.87	9.50	14.0
10-14IBLF/2	Red	10.00	26.6	6.50	8.50	12.60	14.0
16-14IBLF/2	Blue	16.00	31.3	8.30	12.49	19.00	14.0

Pack Quantity: 100

Larger sizes available on request (subject to M.O.Q).

D1

#### **Uninsulated Bootlace Ferrules**

Voltage: Max 300V

		- 10		
		-	1	
		Dim	ensions in	mm
Part No.	mm <sup>2</sup>	D1	D2	L2
0.50-10UBLF	0.50	1.0	1.7	10.0
0.75-8UBLF	0.75	1.2	1.9	8.0
1.0-8UBLF	1.00	1.4	2.2	8.0
1.0-10UBLF	1.00	1.4	2.2	10.0
1.5-8UBLF	1.50	1.7	2.5	8.0
1.5-10UBLF	1.50	1.7	2.5	10.0
2.5-8UBLF	2.50	2.3	3.3	8.0
2.5-10UBLF	2.50	2.3	3.3	10.0
4-9UBLF	4.00	2.8	3.9	9.0
6-15UBLF	6.00	3.5	4.7	15.0
10-15UBLF	10.0	4.5	5.8	15.0
16-15UBLF	16.0	5.8	7.2	15.0
25-18UBLF	25.0	7.5	9.1	18.0
35-18UBLF	35.0	8.7	10.2	18.0
50-25UBLF	50.0	10.3	12.7	25.0

D2

Pack Quantity: 100

See pages 168 and 169 for recommended tooling.



## **Copper tube terminals**



**SWA** 

## **Copper tube terminals**

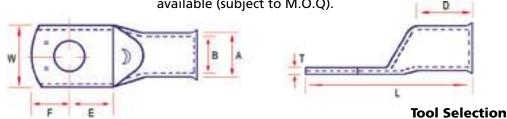
#### **T Range** (1.5mm<sup>2</sup> - 6.0mm<sup>2</sup>)

**Application:** Un-insulated heavy duty terminals suitable for power cables up to 1000 volts.

**Material**: Manufactured from seamless copper tube to BS EN 12449:2016

**Finish**: Electro Tin plated to BS 1872:1984

- Tensile and electrical performance requirements to BS EN 61238-1:2003
- All terminals are manufactured from 99.5% copper and double annealed to ensure optimum ductility to avoid severe deformation such as cracking and splitting when crimped
- Terminals are supplied with an inspection window which enables the user to ensure full and correct insertion of the conductor and a flared or chamfered entry ensures a smooth transition from terminal to conductor
- High temperature versions available (subject to M.O.Q).
- All SWA terminals are identified with the unique SWA part number denoting cable size and stud hole size for full traceability to ensure correct selection of the appropriate tool and dies



						Dime	ensio	ns in	mm				Me	echa	anic	al c	rimp tools	н	lydra	aulic/	Batt	ery cr	imp t	ools
Cond. Size mm <sup>2</sup> Strand/Flex	Part No.		Stud Hole	A	В	w	E	F	D	L	т	SUPPLIED WITH DIES CRIMP PROFILE		Y V	Y	Y								
	1.5-4T	100	M4	3.3	1.8	8.5	6.0	6.0	6.0	18.0	0.8													
1.5*/ 1.5	1.5-5T	100	M5	3.3	1.8	9.5	6.0	6.0	6.0	20.0	0.8													
	1.5-6T	100	M6	3.3	1.8	10.5	6.0	6.0	6.0	20.0	0.8													
	2.5-4T	100	M4	4.2	2.4	8.5	6.0	6.0	7.0	19.0	1.0													
2.5*/ 2.5	2.5-5T	100	M5	4.2	2.4	9.5	6.0	6.0	7.0	21.0	1.0													
	2.5-6T	100	M6	4.2	2.4	10.5	6.0	6.0	7.0	21.0	0.8													
	4-4T	100	M4	5.0	3.0	8.5	6.0	5.5	9.0	25.0	1.3													
	4-5T	100	M5	5.0	3.0	9.5	6.0	6.0	9.0	25.0	1.1		516											
4*/4	4-6T	100	M6	5.0	3.0	10.5	9.5	6.0	9.0	25.0	1.0		<b>RP151</b>											
	4-8T	100	M8	5.0	3.5	12.0	9.5	9.5	9.0	33.0	1.0		-											
	4-10T	100	M10	5.0	3.5	14.0	9.5	9.5	9.0	33.0	1.0													
	6-4T	100	M4	6.0	4.0	8.0	6.0	6.0	9.0	28.0	1.6													
	6-5T	100	M5	6.0	4.0	9.0	6.0	6.0	9.0	28.0	1.6			ŝ	H	НО								
6*/6	6-6T	100	M6	6.0	4.0	11.0	6.0	6.0	9.0	28.0	1.4			<b>RP625</b>	CT650H	CT6120H								
	6-8T	100	M8	6.0	4.0	13.0	9.5	9.5	10.0	35.0	1.1			R	P	Ē								
	6-10T	100	M10	6.0	4.0	14.5	9.5	9.5	10.0	35.0	1.0													

\* Denotes chamfered cable entry



## **Copper tube terminals**

## TQ<sup>™</sup> Range – B.S. Approved (10mm<sup>2</sup> - 70mm<sup>2</sup>)

						Dim	ensior	ns in I	nm		
Cond. Size mm <sup>2</sup> Strand/Flex	Part No.	Pk Qty	Stud Hole	Α	В	w	E	F	D	L	т
	10-5TQ	50	M5	6.9	4.4	11.0	5.9	5.1	9.0	27.0	2.0
	10-6TQ	50	M6	6.9	4.4	11.0	5.9	5.1	9.0	27.0	2.0
10 / 10	10-8TQ	50	M8	6.9	4.4	14.0	9.75	8.25	11.0	35.0	1.6
	10-10TQ	50	M10	6.9	4.4	6.0	12.0	10.0	10.0	<u>39.0</u>	1.5
	10-12TQ	50	M12	6.9	4.4	18.0	12.0	10.0	10.0	<u>39.0</u>	1.3
	16-5TQ	10	M5	8.0	5.6	11.0	5.9	5.1	11.0	29.5	2.2
	16-6TQ	10	M6	8.0	5.6	11.0	5.9	5.1	11.0	29.5	2.2
16 / 16	16-8TQ	10	M8	8.0	5.6	14.0	9.75	8.25	11.0	38.0	1.7
	16-10TQ	10	M10	8.0	5.6	16.0	12.0	10.0	11.0	42.0	1.5
	16-12TQ	10	M12	8.0	5.6	18.0	12.0	10.0	11.0	<mark>42.0</mark>	1.3
	25-5TQ	10	M5	9.5	7.0	13.5	9.75	8.25	13.0	40.0	2.4
	25-6TQ	10	M6	9.5	7.0	13.5	9.75	8.25	13.0	40.0	2.4
25 / 25	25-8TQ	10	M8	9.5	7.0	13.5	9.75	8.25	13.0	40.0	2.4
	25-10TQ	10	M10	9.5	7.0	16.0	12.0	10.0	13.0	44.0	2.0
	25-12TQ	10	M12	9.5	7.0	18.0	12.0	10.0	13.0	44.0	1.8

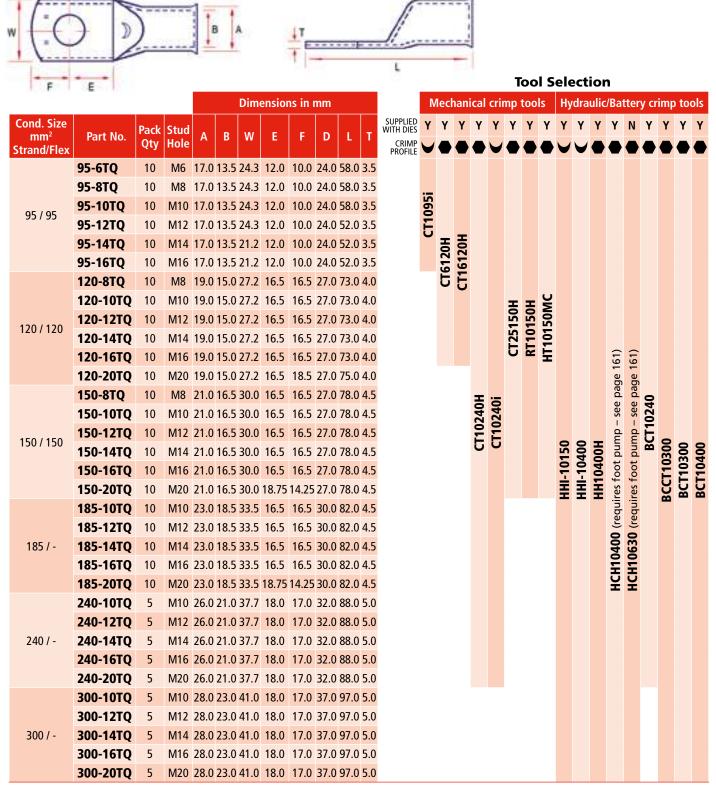
								Тс	oo	S	ele	ec	tio	n							
	M	ech	ani	cal	cri	mp	to	ols		H	ydı	rau	lic/	Bat	ter	y c	rin	ıp 1	00	ls	
SUPPLIED WITH DIES	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y
CRIMP PROFILE	V	V	V			V	V						V	V							
	RP1516	RP16	RP625	CT650H	CT6120H	CT1095i	CT10240i	CT16120H	CT25150H	RT10150H	HT10150MC	HH10150H	HHI-10150	HHI-10400	HH10400H	HCH10400 (requires foot pump – see page 161)	HCH10630 (requires foot pump – see page 161)	BCCT10300	BCT10300	BCT10400	BCT10240

																		Т	00	I S	el	ec	tic	n						
						Dime	ensio	ns in I	mm				Me	cha	anic	al o	rin	np tools		H	lyd	rau	lic/	Bat	ter	y cr	im	p to	ols	
Cond. Size mm <sup>2</sup> Strand/Flex	Part No.		Stud Hole	A	В	w	E	F	D	L	т	SUPPLIED WITH DIES CRIMP PROFILE		Y D	Y V	Y	Y	Y	Y	Y	_	Y		_	_	N	Y ` ₽{	Y 1	Y Y	, )
	35-6TQ	10	M6	11.0	8.2	15.5	9.75	8.25	14.0	41.0	2.8																			
	35-8TQ	10	M8	11.0	8.2	15.5	9.75	8.25	14.0	41.0	2.8																			
35 / 35	35-10TQ	10	M10	11.0	8.2	15.5	12.0	10.0	14.0	45.0	2.8														161)	161)				
55755	35-12TQ	10					12.0																							
	35-14TQ	10					12.0						Ŧ												page	page				
	35-16TQ	10					12.0						CT650H												see	see				
	50-6TQ	10	M6	12.1	9.45	17.2	9.75	8.25	18.0	46.0	2.4		5												1	1				
	50-8TQ	10	M5	12.1	9.45	17.2	9.75	8.25	18.0	46.0	2.4		=	Ę		5	E	Н	HO	50MC	Ю	50	8	Ю	mno	dund		88		c t
50 / 50	50-10TQ	10					12.0							H02101-	[1095]	CI102401	CT6120H	.T25150H	015(	150	015	101	104	0400H	oot pump	oot	10	103	104	V
	50-12TQ	10					12.0						ť		E	Ē		12	T1(	19	HH1(	İ	İ	HH1	4	4			<u>ל</u>	2
	50-14TQ	10					15.0												-	Ξ	Ξ	Ŧ	Ξ	т	(requires	(requires	œ'			1
	50-16TQ	10					15.0						۰.												(rec	(rec				
	70-6TQ	10					9.75																		400	630				
	70-8TQ	10					9.75																		HCH10400	10				
70 / 70	70-10TQ	10					12.0																		Ş	Ì				
	70-12TQ	10					12.0																		_	_				
	70-14TQ	10					16.5																							
	70-16TQ	10	M16	15.0	11.2	21.2	16.5	16.5	18.0	63.0	3.5																			

Use hexagonal crimp profile tooling to comply with BS EN 61238-1:2003

## **Copper tube terminals**

## **TQ™ Range – B.S. Approved** (95mm<sup>2</sup> - 300mm<sup>2</sup>)



D

Use hexagonal crimp profile tooling to comply with BS EN 61238-1:2003





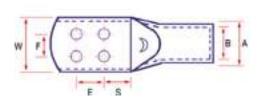
## **Copper tube terminals**

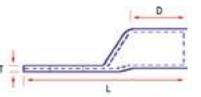
												_		To	ool	Se	ele	ctio	on
						Din	nensio	ns in I	nm						Hy	ydra	ulio	:/Ba	ttery crimp tools
Cond. Size mm <sup>2</sup> Strand/Flex	Part No.		Stud Hole	A	В	w	E	F	D	L	т	SUPPLIED WITH DIES CRIMP PROFILE		Y	Y	Y		Y	
	400-10TQ	5	M10	32.0	27.0	47.3	25.0	25.0	38.0	113.0	5.0			_	*				
	400-12TQ	5	M12	32.0	27.0	47.3	25.0	25.0	38.0	113.0	5.0		HHI-10400	HH10400H	HCH10400*		-	CT10400	
400 / -	400-14TQ	5	M14	32.0	27.0	47.3	25.0	25.0	38.0	113.0	5.0		-10	104	110		page 161	T10	
	400-16TQ	5	M16	32.0	27.0	47.3	25.0	25.0	38.0	113.0	5.0		Ŧ	Ť	Ę		page	BC	
	400-20TQ	5	M20	32.0	27.0	47.3	25.0	25.0	38.0	113.0	5.0					*	see		
	500-12TQ	2	M12	38.1	30.0	55.0	29.0	25.0	44.0	127.0	8.2					HCH10630	1		
500*/ -	500-14TQ		M14	38.1	30.0	55.0	29.0	25.0	44.0	127.0	8.2					110	dwnd		
500 /	500-16TQ	2	M16	38.1	30.0	55.0	29.0	25.0	44.0	127.0	8.2					È	foot p		
	500-20TQ	2	M20	38.1	30.0	55.0	29.0	25.0	44.0	127.0	8.2						es fo		
	630-12TQ	2	M12	44.0	33.8	63.0	25.0	23.0	46.0	127.0	10.2						*requires		
630*/ -	630-14TQ	2	M14	44.0	33.8	63.0	25.0	23.0	46.0	127.0	10.2						*rec		
223 1	630-16TQ	2	M16	44.0	33.8	63.0	25.0	23.0	46.0	127.0	10.2								
	630-20TQ	2	M20	44.0	33.8	63.0	25.0	23.0	46.0	127.0	10.2								

## **TQ<sup>™</sup> Range – B.S. Approved** (400mm<sup>2</sup> - 630mm<sup>2</sup>)

\*Denotes chamfered cable entry

## **4 Hole Transformer Fixing Terminals**







Part	No.		Dimensions in mm								
8mm Stud Hole	10mm Stud Hole	Cable Size mm <sup>2</sup>	А	В	W	E	F	D	L	S	Т
120-4 x 8TFQ	120-4 x 10TFQ	120	19.0	15.0	56.0	25.0	35.0	34.0	119.0	17.0	4.0
150-4 x 8TFQ	150-4 x 10TFQ	150	21.0	16.5	56.0	25.0	35.0	34.0	119.0	17.0	4.5
185-4 x 8TFQ	185-4 x 10TFQ	185	23.0	18.5	56.0	25.0	35.0	34.0	119.0	17.0	4.5
240-4 x 8TFQ	240-4 x 10TFQ	240	26.0	21.0	56.0	25.0	35.0	34.0	119.0	17.0	5.0
300-4 x 8TFQ	300-4 x 10TFQ	300	28.0	23.0	56.0	25.0	35.0	42.0	126.0	17.0	7.0
400-4 x 8TFQ	400-4 x 10TFQ	400	32.0	27.0	56.0	25.0	35.0	44.0	126.0	17.0	8.5
500-4 x 8TFQ	500-4 x 10TFQ	500	38.0	30.0	56.0	25.0	35.0	65.0	150.0	17.0	8.0
630-4 x 8TFQ	630-4 x 10TFQ	630	44.0	34.0	63.0	25.0	35.0	65.0	150.0	17.0	10.0

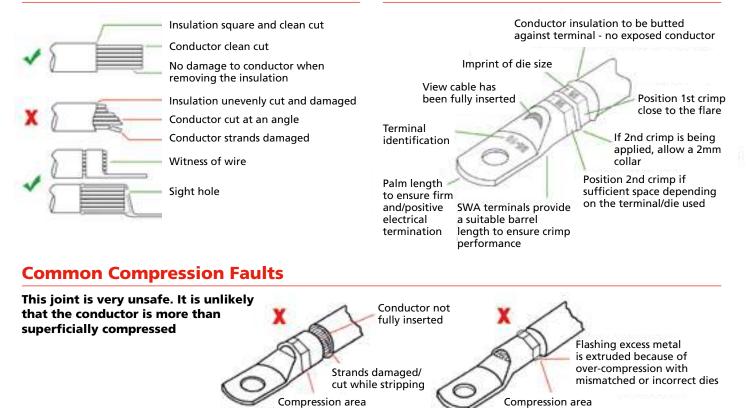
All chamfered entry

For recommended tooling refer to TQ terminals.



## **Copper tube terminals**

## **Cable Preparation**



**Correct Compression Techniques** 

too far from palm

All tooling used in the application of cable connectors should be kept in a good state of repair, regularly maintained and used in strict accordance with SWA's operating instructions

too near palm

British Standard BS 7609: 1992 "Code of practice Installation and Inspection of uninsulated compression and mechanical connectors for power cable with copper or aluminium conductors".

#### Recommended Torque wrench settings for aluminium and copper terminations:

Stud size (full nut) mm	Grade 8.8 stainless steel or equivalent studs Nm	Brass or high conductivity copper studs Nm
6	7	5
8	20	10
10	35	20
12	50	40
14	70	65
16*	90	90
20	150	-

\*16mm aluminium or copper stemmed bushings; full nuts, 70Nm; half nuts 55Nm



## **Copper tube terminals**

## **Reduced Palm Heavy Duty Terminals**

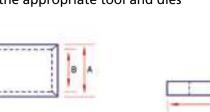
2

n

**Application**: For L.V. circuit breakers with reduced space terminal blocks for immediate and easier installation.

**Material**: Manufactured from seamless copper tube to BS EN 12449:2016 **Finish**: Electro Tin plated to BS 1872:1974

- All terminals are manufactured from 99.5% copper and fully annealed to ensure optimum ductility to avoid severe deformation such as cracking and splitting when crimped
- All SWA terminals are identified with the unique SWA part number denoting cable size and stud hole size for full traceability to ensure correct selection of the appropriate tool and dies



					Dim	ensions in	mm		
Part No.	Cond. Size mm <sup>2</sup>	Stud Hole	A	В	С	D	E	w	L
10-5TRP	10	M5	6.9	4.5	6.0	6.5	9.0	9.0	26.0
16-5TRP	16	M5	7.9	5.6	6.0	6.5	11.0	9.0	29.0
25-5TRP	25	M5	9.5	7.0	6.0	6.5	13.0	9.0	31.5
35-6TRP	35	M6	11.0	8.2	7.0	8.0	14.0	11.5	36.5
50-6TRP	50	M6	12.1	9.5	7.0	8.0	18.0	11.5	40.5
70-6TRP	70	M6	15.0	11.5	7.0	8.0	18.0	11.5	44.0
70-8TRP	70	M8	15.0	11.5	7.0	8.0	18.0	14.5	44.0
95-8TRP	95	M8	17.0	13.5	8.0	9.0	24.0	15.5	52.5
120-8TRP	120	M8	19.0	15.0	9.0	14.0	27.0	19.0	60.0
120-10TRP	120	M10	19.0	15.0	9.0	14.0	27.0	19.0	60.0
150-8TRP	150	M8	21.0	16.5	9.0	18.0	27.0	19.0	70.0
150-10TRP	150	M10	21.0	16.5	9.0	18.0	27.0	19.0	70.0
185-10TRP	185	M10	23.0	18.5	9.0	18.0	30.0	24.5	77.0
240-10TRP	240	M10	26.0	21.0	10.0	16.0	32.0	31.0	80.0
240-12TRP	240	M12	26.0	21.0	12.0	20.0	32.0	31.0	86.0
240-16TRP	240	M16	26.0	21.0	17.0	19.0	32.0	31.0	94.0
300-10TRP	300	M10	28.0	23.0	12.0	18.0	37.0	31.0	95.0
300-12TRP	300	M12	28.0	23.0	12.0	18.0	37.0	31.0	95.0

All chamfered entry

For recommended tooling refer to TQ terminals.





## **Copper Tube Splices**

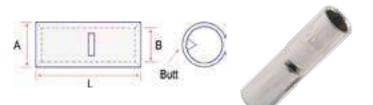
Application: Un-insulated heavy duty terminals suitable for power cables up to 1000 volts. Material: Manufactured from seamless copper tube to BS EN 12449:2016

Finish: Electro Tin plated to BS 1872:1974

**Butt Splices** 

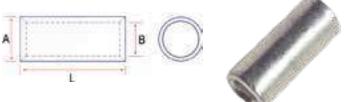
- All terminals are manufactured from 99.5% copper and fully annealed to ensure optimum ductility to avoid severe deformation such as cracking and splitting when crimped
- All SWA terminals are identified with the unique SWA part number denoting cable size for full traceability to ensure correct selection of the appropriate tool and dies

#### **Parallel Splices**



			Dim	ensions in	mm
Part No.	Pack Qty	Cond. Size mm <sup>2</sup>	А	В	L
1.5BS	100	1.5	3.3	1.8	14.0
2.5BS	100	2.5	4.2	2.3	16.0
4BS	100	4.0	5.0	3.0	19.0
6BS	100	6.0	6.0	4.0	22.0
10BS	50	10	6.9	4.4	25.0
16BS	10	16	8.0	5.6	30.0
25BS	10	25	9.5	7.0	35.0
35BS	10	35	11.0	8.2	39.0
50BS	10	50	12.1	9.5	44.0
70BS	10	70	15.0	11.2	44.0
95BS	10	95	17.0	13.5	55.0
120BS	10	120	19.0	15.0	63.0
150BS	10	150	21.0	16.5	66.0
185BS	10	185	23.0	18.5	74.0
240BS	5	240	26.0	21.0	80.0
300BS	5	300	28.0	23.0	89.0
400BS	5	400	32.0	27.0	90.0
500BS	2	500	38.1	30.0	135.0
630BS	2	630	44.0	33.8	135.0

For recommended tooling refer to TQ terminals.



			Dim	ensions in	mm
Part No.	Pack Qty	Cond. Size mm <sup>2</sup>	А	В	L
10PS	50	10	6.9	4.5	13.0
16PS	10	16	7.9	5.6	13.0
25PS	10	25	9.5	7.0	15.0
35PS	10	35	11.0	8.2	16.0
50PS	10	50	12.1	9.5	18.0
70PS	10	70	15.0	11.5	24.0

See page 173 for recommended tooling.

Parallel Splices should only be crimped using an indent-style tool.

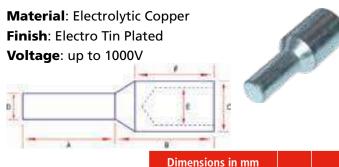
To see a video explaining techniques and best practice scan the QR code





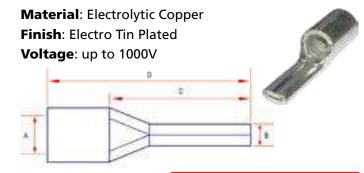
## **Copper Reducing Pin Terminals**

## Un-insulated Solid Reducing Copper Pin Terminal



			inclusio				
Part No.	Cond. Size mm <sup>2</sup>	Α	В	С	D	E	F
10USP	10	10	13	6.2	3.8	4.4	8.6
16USP	16	13	17	7.0	3.8	5.3	8.6
25USP	25	20	17	9.5	5.0	7.9	12.0
35USP	35	20	17	11.0	5.0	8.9	15.0
50USP	50	20	21	12.5	7.5	9.5	15.0
70USP	70	20	23	15.8	8.0	11.25	21.0
95USP	95	20	26	18.0	8.0	13.5	20.0
120USP	120	25	25	19.2	11.5	15.0	20.0
<b>150USP</b>	150	32	32	21.0	11.5	16.5	23.0
185USP	185	32	32	23.0	11.5	18.5	28.0
240USP	240	32	32	27.0	15.6	21.0	32.0
300USP	300	32	32	30.4	15.6	23.0	41.0

## **Un-insulated Reducing Pin Terminal**



			Dimensio	ns in mm	
Part No.	Cond. Size mm <sup>2</sup>	А	В	С	D
10UP	10	4.8	4.3	14.5	23.5
16UP	16	5.9	5.5	18.0	28.0
25UP	25	7.0	7.0	20.3	32.0
35UP	35	8.9	8.0	24.5	39.0
50UP	50	10.0	9.5	26.0	45.0
70UP	70	11.5	11.0	31.0	55.0

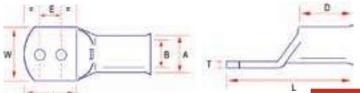
Sold in eaches.

See page 163 for recommended tooling. NOTE: UP Pins should only be crimped using an indent-style tool.

Sold in eaches.

Alternative pin lengths/diameters are available to special order (subject to M.O.Q). Special bespoke version to customer specification available – ask for details.

## **Extended Palm 2 Hole Terminals**



Alternative stud hole sizes, hole centres and blank palms are available to special order (subject to M.O.Q).

								-				
				Dimensions in mm								
Part No.	Cond. Size mm <sup>2</sup>	Stud Hole	А	В	W	E	F	D	L	т		
10-6POI	10	6	6.9	4.6	11.0	16.0	34.0	10.0	50.0	2.0		
16-6POI	16	6	8.0	5.6	11.0	16.0	34.0	11.0	52.0	2.2		
25-6POI	25	6	9.5	7.0	13.5	16.0	34.0	13.0	56.0	2.4		
35-6POI	35	6	11.0	8.2	15.5	16.0	34.0	18.0	57.0	2.8		
50-6POI	50	6	11.9	9.5	17.0	45.0	75.0	18.0	83.0	2.5		
70-12POI	70	12.5	15.0	11.5	21.2	45.0	75.0	18.0	105.0	2.0		
95-12POI	95	12.5	17.0	13.5	24.3	45.0	75.0	24.0	111.0	3.5		
120-12POI	120	12.5	19.0	15.0	27.2	45.0	75.0	27.0	115.0	4.0		
150-12POI	150	12.5	21.0	16.5	30.0	45.0	75.0	27.0	120.0	4.5		
185-12POI	185	12.5	23.0	18.5	33.5	45.0	75.0	30.0	125.0	4.5		

For recommended tooling refer to TQ terminals.

Larger sizes available on request (subject to M.O.Q).

## **Shear-Bolt Connectors**

Only 3 sizes of connector required to cover conductors 10 to 300mm<sup>2</sup>

- Greatly reduces installation time no need for crimp tools, only impact driver with Allen Key
- The best connections for voltages up to 36kV
- Suitable for both copper and aluminium stranded or solid
- Innovative slip-disc base design to ensure no damage to the conductors
- Bolts always shear-off below barrel of terminal 98 seperate breaking points
- Guaranteed electrical and mechanical connection



#### The Bolted Connector with Stepless Shear Bolts for Low and Medium Voltage Cables **Technical Features:**

- Large clamping range: 10 95mm<sup>2</sup>; 25 150mm<sup>2</sup>; 50 240mm<sup>2</sup>; 95 300mm<sup>2</sup>; 300 630mm<sup>2</sup>; 6 3/0 kcm; 2 - 250 kcm; 1/0 - 500 kcm; 4/0 - 600 kcm; 500 - 1000 kcm (others on request)
- Centric cable guide with different centring sleeves
- Conductor channels with transverse groove and protection against conductor oxidation
- Blind hole designed as pressure-resistant oil barrier for impregnated cables
- Compact design: Rounded edges and flat transitions suitable for slide-on and shrink sleeves
- Contact technology type-tested to IEC 61238-1

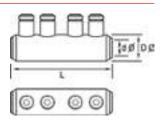
**Shear Bolt Connectors** 

• Proven in joint tests to HD 629 and in 18-month endurance test

#### Round and Solid Alum. & Mounting **Dimensions in mm** No. of Hexagon Round Part No. Compacted Copper Cond. Hole Screws $(mm^2)$ Key DØ dØ 100 DO $(mm^2)$ $(mm^2)$ (mm)SBC10-95 24 13 70 1 10-95 10-95 10-70 4mm-3/16" 13 SBC50-240 33 20 115 2 50-185 50-240 50-185 6mm-1/4" 13 2 SBC95-300 38 24 120 95-300 95-300 95-240 8mm-5/16" 13

#### **Shear Bolt Splice Connectors**

Dout No.	Dime	nsions i	in mm	No. of	Round	Round and	Solid Alum. &	Hexagon
Part No.	DØ	dØ	L	Screws			Кеу	
SBS10-95	24	13	65	2	10-95	10-95	10-70	4mm-3/16"
SBS50-240	33	20	126	4	50-185	50-240	50-185	6mm-1/4"
SBS95-300	38	24	140	4	95-300	95-300	95-240	8mm-5/16"





# SELEKT-A-BOX™

## **Bootlace Ferrules – SAB-BLF**

Selection of Bootlace Ferrules 0.5mm<sup>2</sup> - 6mm<sup>2</sup>



### **Cable Tie Mounts – SAB-CTB**

Selection of Adhesive Cable Tie Mounts and Fixing Bolts



### **Heatshrink Terminals – SAB-HST**

Selection of Heatshrink Terminals 1.5mm<sup>2</sup> - 6.0mm<sup>2</sup>



## **Pre-insulated Terminals – SAB-PRE**

Selection of Pre-insulated Terminals 1.5mm<sup>2</sup> - 6mm<sup>2</sup>



### **Heatshrink Sleeving – SAB-HS**

Selection of Heatshrink Sleeving 6.4mm - 12.7mm



### Splices – SAB-SPL

Selection of Splices 1.5mm<sup>2</sup> - 16mm<sup>2</sup>





## SELEKT-A-BOX™

### Strip & Push-In Connectors – SAB-CONS

Selection of 12 Way Strip & Push-In Connectors (2, 4, 6 & 8 Ways)



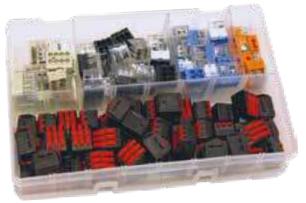
## Piano Key Connectors – SAB-PKC

3 Way Piano Key Connectors (see page 37 for technical details)



### **Push-In Connectors – SAB-PIC**

Selection of Push-In Connectors (see page 37 for technical details)



#### **Piano Key Connectors – SAB-PKC5**

5 Way Piano Key Connectors (see page 37 for technical details)



### **Piano Key Connectors – SAB-PKC35**

Selection of 3 and 5 Way Piano Key Connectors (see page 37 for technical details)



### **Copper Tube Terminals – SAB-CTT**

Selection of Copper Tube Terminals 10mm<sup>2</sup> - 70mm<sup>2</sup>





## SELEKT-A-BOX™

## Self-Tapping Screws – SAB-STS

Selection of Self-Tapping Screws size 6 - 10



### **PVC Grommets – SAB-GRO**

Selection of Open and Closed PVC Grommets 20mm and 25mm



### Hose Clamps & Constant Force Springs – SAB-JC

Selection of Hose Clamps and Constant Force Springs 10mm - 35mm



### Socket Screws & Stud Extensions – SAB-SCR

Selection of Socket Screws 3.5 x 25mm, 3.5 x 35mm, 3.5 x 40mm, 3.5 x 50mm and 3.5 x 75mm and 3.5mm Stud Extensions



### Membrane Grommets – SAB-MG



### Selekt-A-Box™ Stand – SAB-STD

Wire Selekt-A-Box™ Display Stand

#### Selekt-A-Box™ Stand – SAB-TCD

Selekt-A-Box™ Stand Graphics

N.B. Order both for a complete stand





## **FIX-A-BOX**

### Pozi Pan Head Self Drilling Screws BZP – FAB-PPS

Pozi pan head self drilling screws BZP contains a selection of 3.5x9.5, 3.5x13, 3.5x19, 4.2x13, 4.2x16, 4.2x19, 4.2x25, 4.8x13, 4.8x19, 4.8x25



### **Chipboard Screws BZP – FAB-CS**

Chipboard screws BZP contains a selection of 3.5x12, 3.5x20, 3.5x25, 4.0x16, 4.0x25, 4.0x30, 4.0x50, 5.0x25, 5.0x30, 5.0x40

## Flat Form A Washers – FAB-FAW

Flat form A washers contains a selection of M5A, M6A, M8A, M10A, M12A, M16A



#### **Roofing Bolts & Nuts BZP – FAB-RBN**

Roofing bolts and nuts BZP contains a selection of M6x10, M6x12, M6x16, M6x20, M6x25, M6x30, M6x40, M6x50, M6x60, M6x80 plus M6 square nuts



### **Brass Washers – FAB-BW**

Brass washers contains a selection of M4, M5, M6, M8, M10, M12, M16, M20









# FIX-A-BOX

### **Brass Bolts – FAB-BB**

Brass bolts contains a selection of M6x12, M6x20, M6x30, M8x20, M8x30, M8x50, M10x20, M10x30, M10x50, M12x30



#### **Brass Nuts – FAB-BN**

Brass nuts contains a selection of M4, M5, M6, M8, M10, M12, M16, M20



#### Fix-A-Box Stand – FAB-STD

Fix-A-Box Display Stand

### Fix-A-Box Stand – FAB-TCD

Fix-A-Box Stand Graphics

N.B. Order both for a complete stand





www.swaonline.co.uk



# **Terminal Kit Boxes**

### **PK156**

Complete with hand ratchet crimp tool and a selection of pre-insulated terminals 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup>



## EK1016

Complete with hand ratchet crimp tool and a selection of 10mm<sup>2</sup> & 16mm<sup>2</sup> copper tube terminals



## **BK0540**

Complete with hand ratchet crimp tool and a selection of insulated bootlace ferrules  $0.5 mm^2 - 4.0 mm^2$ 

### **COP650TOOL-KIT**







# **Terminal Kit Boxes**

## LAR-PRE-KIT

Complete with a selection of 18 popular types of pre-insulated terminals  $0.5mm^2 - 6.0mm^2$ 



### **PAN-PRE-KIT**

Complete with an assortment of 5 sizes of insulated bootlace ferrules 0.5mm<sup>2</sup> - 2.5mm<sup>2</sup> and 7 types of popular pre-insulated terminals 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup>



### COP650-KIT

Complete with an assortment of 15 popular types of copper tube terminals 6mm<sup>2</sup> - 50mm<sup>2</sup>



### **PAN-KIT**

Complete with an assortment of 6 sizes of insulated bootlace ferrules 0.5mm<sup>2</sup> - 4.0mm<sup>2</sup> and 6 types of popular pre-insulated pin and flat blade terminals 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup>





# **Fixing Tubs**

## Fixing Tubs – TUB-RPS, TUB-BPS, TUB-CFS

#### The new way to transport those all-important fixings

A range of popular fixings in transparent tubs. Easy to see when stocks are running low, each with re-sealable lid. No more frustrating spills. SWA – making life easier for busy contractors.

Part No.	Description
TUB-RPS	400 - Red Wall Plugs, 400 - 8x1½" Countersunk Wood Screws, 1xNo.8 Masonry Drill, 1xNo.2 Pozidrive Drill Bit
TUB-BPS	300 - Brown Wall Plugs, 300 - 10x2 " Countersunk Wood Screws, 1xNo.10 Masonry Drill, 1xNo.2 Pozidrive Drill Bit
TUB-CFS	200 - Self-Drilling Caving Fixings complete with 200 - Screws, 1xNo.2 Pozidrive Drill Bit



# **Aluminium Terminals**

## **4 Core Sectorial Aluminium Conductor**

- Used on solid sectorial-shaped aluminium cores
- Die positional marks to ensure correct crimping

Part No.	Conductor Size mm <sup>2</sup>	Stud Hole Size mm	Number of Indents Required
4SLM35	35	12	2
4SLM50	50	12	2
4SLM70	70	12	2
4SLM95	95	12	3
4SLM120	120	12	3
4SLM150	150	12	3
4SLM185	185	12	3
4SLM240	240	12	3
4SLM300	300	12	3



For details of other aluminium terminals available please contact SWA.

Hire tools available to suit.

## **Electrical Joint Compound – Unial Paste**

- Recommended for use on aluminium to aluminium and aluminium to copper connections, on all bare conductors and bus bars
- Assumes a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film

Part No.	Volume
UN225	225ml





## **Terminal Connectors**

## 'Push-In' Wire Connectors

Quick, reliable, easy and convenient way for the installation of cable conductors in a range of electrical wiring applications.

- Can be applied without the need for any tools
- Transparent housing allows a fast and easy visual check
- For use on both solid and flexible conductors
- Easy to use strip and insert into connector
- To release, simply twist left and right while pulling to release the conductor

Deut No		Colour	Cable ra	nge mm²	Volt	Amp
Part No.		Colour	Solid	Flexible	rating	rating
PIC2	2-way	Orange	0.75 - 2.5	1.5 - 2.5	400	24
PIC4	4-way	Blue	0.75 - 2.5	1.5 - 2.5	400	24
PIC6	6-way	Black	0.75 - 2.5	1.5 - 2.5	600	20
PIC8	8-way	Grey	0.75 - 2.5	1.5 - 2.5	600	20

EN 60998-1:2001 EN 60998-2-2:2004 UL & CSA approved RoHS compliant

Pack Quantity: 10

### **Piano Key Connectors**

The new range of piano key push-in wire connectors are ideal for a quick, reliable, easy and convenient way for the installation of cable conductors in a range of electrical wiring applications.

- Quick Release
- Can be applied without the need for any tools
- For use on both solid and flexible conductors
- Easy to use strip cable and insert into connector

Wire Cross Section: From 0.75mm<sup>2</sup> to 2.5mm<sup>2</sup> Cable Types: Solid & flexible wires Operating Voltage: 400V AC Operating Current: 32A (max) Operating Temp: -30°C to +110°C Flammability Class: UL94 - VØ Approvals: EN 60998-1, EN 60998-2 Cable Stripping Length: 10mm Housing Material: Plastic GWT 960°C Contact Material: Electrolytic Copper Spring Material: Hardened Steel

Part No.	Pole	Length	Depth	Height closed	Height open	Pack Quantity
РКС3	3	16	21.1	14.8	24	10
PKC5	5	25.8	21.1	14.8	24	10

To see a video demonstration scan the QR code



Selekt-A-Box<sup>™</sup> versions are also available see page 30



		1
	100	
	REP	



# **Terminal Connectors**

## **UY Wire Connectors**

For telecommunications and signal cables according to DIN 47 627

- Can be used on low voltage applications such as plastic insulated telecom and signals cables, gate automation, LED's or security systems
- Can be used internally OR externally
- Each crimp is filled with an 'oily jelly' to prevent ingress of moisture
- As the connector is compressed, the gel filling is forced out through the holes forming a perfectly waterproof seal
- One step application to seal, connect and insulate simply push the wires to be connected into the holes in the crimp and press down firmly with a pair of ordinary pliers and the i.d.c connectors inside then make the connection (no need for the stripping of the the cable insulation)

Part No.	Number of wires	Conductor Ø mm	Max. Wire Ø mm	Pack Qty
UY2-C	2	0.4 - 0.9	2.0	100
UY3-C	3	0.4 - 0.9	2.0	100

	Value	Norm
Insulation resistance	> 106 MΩ	DIN 47 627
Voltage resistance conductor / conductor	> 500 V	DIN 47 627
Volume resistance prior to use	< 10 MΩ	DIN 47 627
Change of volume resistance	< 2 MΩ	DIN 47 627
Impulse voltage strength	> 5kV	VDE 0433
Impulse current strength	No burning signs in contact area	DIN 47 627*



The connector has been designed according to the DIN 47627 norm without the need for soldering the wire connectors for telecom joints

Easy-break

\*Wire with conductor cross section of 0.6mm and a current surge of 4kA

### **12-Way Terminal Strip Connector**

Manufactured and tested according to international standards, SWA terminal strips are designed for electrical appliances, lighting fixtures, small transformers and for safety connection.

**Housing material**: Polypropylene (PP) white flameretardant to UL94V-2

Terminal body: Steel, zinc-plated

Screws: Steel, zinc-plated

Approvals:

12WSC5-T85: UL, CE, VDE 12WSC15-T85: UL, CE, VDE 12WSC30-T85: CE, VDE 12WSC60-T85: CE, VDE

							Dimen			
Part No.	Wire Range mm <sup>2</sup>	Voltage in Volts	Current in Amps	Operating T IEC	emperature UL	Screws	Length	Width	Height	Between Connections
12WSC5-T85	1 - 6	300 (UL) 450 (VDE)	25A (UL) 41A (VDE)	85°C	65°C	M3.0 x 6	116.8	19.2	16.7	10.0
12WSC15-T85	2.5 - 10	300 (UL) 500 (VDE)	30A (UL) 57A (VDE)	85°C	65°C	M3.5 x 7	140.5	23.5	18.7	12.0
12WSC30-T85	4 - 16	450 (VDE)	76A (VDE)	85°C	-	M4.0 X 9	169.8	25.0	20.8	14.5
12WSC60-T85	10 - 25	750 (IEC)	101 (IEC)	85°C	-	M5.0 x 11	194.4	36.0	26.1	16.5

AL (E 🖄

Pack Quantity: 10 strips





# **Terminal Connectors**

## In-line IP68 Waterproof Connector – 20 amp / 3 pole

Rated operation voltage: 400V impulse Withstand voltage: 2500V Current rating: 13A Operating temp: -40°C to +95°C IP protection: IP68 Termination: Screw Wire gauge: 2.5mm<sup>2</sup> Max (7-13mm) Material: PA66 Terminal contacts: Copper alloy Housing: High perfomance plastic, flame retardant Material: RoHS environmental protection material



			Dimensions in mm					
Part No.	Thread size	Cable Range	Thread O.D L2	Thread Length	Spanner Size A&E	Terminal Number		
ILC3P	M20*1.5	7-13	20	11	24/22	3P		

# In-line IP68 Waterproof Connector – 20 amp / 5 pole

IP protection: IP68

protection material

Material: RoHS environmental

Cable type: PVC, Silicon, Rubber

retardant / Anti UV nylon (PA66)

Housing material: Flame

Crimping terminals:

Nickle-plated brass

Rated operational voltage:

AC220V Rated operational Ampere(A): ≤20A

Wire range: 6-13mm (M20X1.5)

**Contact resistance**: <  $10M\Omega$ 

Insulation resistance: 500M $\Omega$  at DC500V

Withstand voltage (normal temperature): 3KV

**Operating temp range**: -40°C to +105°C

Part No.	Thread size	Cable Range	Thread O.D L2	Thread Length	Spanner Size A&E	Terminal Number
ILC5P	M25*1.5	6-13	24	11	30/28	3P/5P





To keep up to date with **new products** and **special offers** go online at

www.swaonline.co.uk



# **Solar PV Terminals & Tools**

### **High-Precision Ratchet Crimp Tool** - RTMC4

High-precision ratchet mechanism

1.2 metric tonnes of pressure at the crimping face with minimum hand effort

Interchangeable high-precision crimping die set Interchangeable magnetic locator for precision positioning of terminals

Ratchet release point in case of user error when crimping

Crimping range of 2.5/4/6mm<sup>2</sup> (AWG14/12/10)

### MC4 Male & Female Panel Connector – MC4P

MC4 panel connector - male & female complete 2.5 / 4 / 6mm<sup>2</sup> UV resistant / flame retardant UL94-V0 IP67 rated Rated voltage: 1500V DC Rated current: 30 amp Temp range: -40°C to +85°C Material: Polyphenylene Oxide (PPO) Approval: IEC 62852 (Ed.1)





MC4 Approval No. TUV DIN EN 50521:2008 VDE 0126-312009-10

### MC4 Male & Female Connector - MC4C

MC4 connector – male & female complete 2.5 / 4 / 6mm<sup>2</sup> UV resistant / flame retardant UL94-V0 IP67 rated

Rated voltage: 1500V DC

Rated current: 30 amp

Temp range:

-40°C to +85°C Material: Polyphenylene

Oxide (PPO) Approval: IEC 62852 (Ed.1)

MC4C: Male & female complete

MC4-MC: Male pin & housing only

MC4-FC: Female pin & housing only MC4-M: Male pin only **MC4-F:** Female pin only



MC4 Approval No. TUV DIN EN 50521:2008 VDE 0126-312009-10

### MC4 Branch Connector – MC4T1M2F & MC4T1F2M

MC4 branch connector 2.5 / 4 / 6mm<sup>2</sup> UV resistant / flame retardant UL94-V0 IP67 rated Rated voltage: 1500V DC Rated current: 30 amp Temp range: -40°C to +85°C Material: Polyphenylene Oxide (PPO) Approval: IEC 62852 (Ed.1)



1 x female entries

2 x female entries

CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk 40



# **Solar PV Terminals & Tools**

MC3 Panel Connector – MCP-4 & MCP-6

MCP-4:

MCP-6:

6mm<sup>2</sup>

2.5 - 4mm<sup>2</sup>

IP67 rated

IP67 rated

## MC3 Connector – MC3C-4 & MC3C-6

**MC3C-4:** 2.5 - 4mm<sup>2</sup>

IP67 rated

MC3C-6:

6mm<sup>2</sup> IP67 rated



#### MC3 Branch Connector MC3T1M2F & MC3T1F2M

MC3 branch connector 2.5 / 4 / 6mm<sup>2</sup> IP67 rated

MC3T1M2F: 1 x male, 2 x female entries



MC3T1F2M: 2 x male, 1 x female entries To see a video explaining techniques and best practice scan

the QR code







# **Specialised Wiring Accessories Limited**







Firefly™ products44-52Cable ties53Fixing band & buckles54Mineral-insulated products &<br/>FP200 fire protection cable accessories55-58



All the right connections!  $\ensuremath{^\circ}$ 

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk





# **Firefly™ Products**





CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk 44

the later



# **Firefly™ Products**



# Firefly™ Fire Safety Clips

#### Firefly™ – it's universal

- Quick, simple and easy to install
- Can be installed directly to the surface
- Spring-loaded design for easy addition and removal
- Melt point over 1000°C
- Zinc plated steel



Firefly™ clips fully meet the requirements of the BS7671:2018 Wiring Regulations to secure all surface cables with metal clips, preventing fire-fighters and people escaping burning buildings from becoming entangled.

The 18th Edition regulations which came into effect from January 2019 prohibit non-metallic clips or plastic trunking as the sole means of support.

Firefly™ clips have been specially developed with a new, flexible design to make them suitable for all popular sizes of plastic trunking. Firefly clips feature rounded ends, preventing damage to cables and injury to electricians.

What's more, their spring-loaded design makes it straightforward to add or remove cables in the months and years after installation. The full range includes a variety of clips to secure cables both inside and outside trunking and conduits.



Warr Certi

Warrington Certified

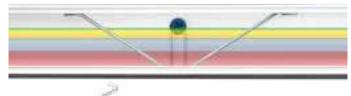
With more designs and styles being added each month, SWA's Firefly<sup>™</sup> range is set be the largest and most comprehensive range of fire safety fixings within our industry.

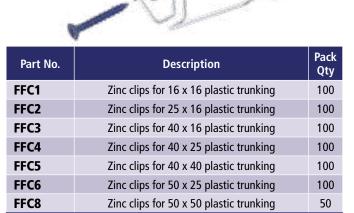


# **Firefly™ Products**

## Firefly<sup>™</sup> Fire Safety Clips

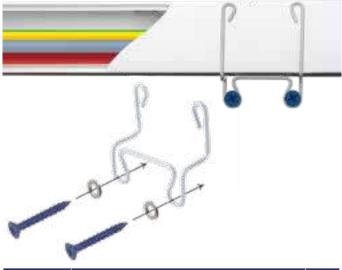
Firefly™ Internal





Screws and washers for illustration purposes only

#### Firefly™ External



Part No.	Description	Pack Qty
FFC2-EXT	Zinc clip for 25 x 16 plastic trunking	100
FFC4-EXT	Zinc clips for 40 x 25 plastic trunking	100

Screws and washers for illustration purposes only

N.B. Masonry screws must be used to comply with BS 7671, see page 48

## Firefly™ External flat Clip



Part No.	Description	Pack Qty
FFC1EXTW	White flat clips for 16 x 16 plastic trunking	50
FFC1EXTR	Red flat clips for 16 x 16 plastic trunking	50
FFC2EXTW	White flat clips for 25 x 16 plastic trunking	50
FFC2EXTR	Red flat clips for 25 x 16 plastic trunking	50
FFC4EXTW	White flat clips for 40 x 25 plastic trunking	50
FFC4EXTR	Red flat clips for 40 x 25 plastic trunking	50

## Firefly™ Round Conduit Clip

Fire resistant conduit clips, available in white or black versions for 20mm & 25mm round conduit. Conforms to BS7671.

Part No.	Description	Pack Qty
FFRC20W	White coated round clips for 20mm white conduit	50
FFRC20B	Black coated round clips for 20mm black conduit	50
FFRC25W	White coated round clips for 25mm white conduit	50
FFRC25B	Black coated round clips for 25mm black conduit	50



#### **Key Hole Fixing Version**

Part No.	Description	Pack Qty
FFCC20WKH	Metal, quick-fit, key hole, conduit clip, 20mm white	50
FFCC20BKH	Metal, quick-fit, key hole, conduit clip, 20mm black	50
FFCC25WKH	Metal, quick-fit, key hole, conduit clip, 25mm white	50
FFCC25BKH	Metal, quick-fit, key hole, conduit clip, 25mm black	50
FFCC32WKH	Metal, quick-fit, key hole, conduit clip, 32mm white	50
FFCC32BKH	Metal, quick-fit, key hole, conduit clip, 32mm black	50



# **Firefly™ Products**

## Firefly<sup>™</sup> Push Grip Cable Clips

Push-in clips for small diameter cables. Designed to be fitted at 150mm spacing, clips should not exceed 300mm spacing.



Part No.	Cable Dia. mm	Colour	Hole Size mm	Pack Qty
FFPGC09	0.9	White	3	50
FFPGC2	2.0	White	4	50
FFPGC-TOOL	Push Grip Fixing Tool		1	

## Firefly™ Fire Safety Clip Kits

#### Kit Tubs – Internal – Masonry

Part No.	Description	Qty
FFC1M-KIT	200 zinc clips for 16 x 16 plastic trunking c/w 200 masonry screws, washers & 1 x 4mm drill	1
FFC2M-KIT	200 zinc clips for 25 x 16 plastic trunking c/w 200 masonry screws, washers & 1 x 4mm drill	1
FFC4M-KIT	100 zinc clips for 40 x 25 plastic trunking c/w 100 masonry screws, washers & 1 x 4mm drill	1

#### Kit Tubs - Internal - Cavity

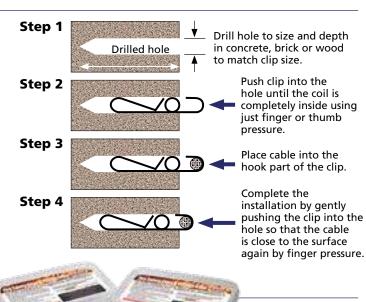
Part No.	Description	Qty
FFC1C-KIT	100 zinc clips for 16 x 16 plastic trunking c/w 100 cavity fixings & screws	1
FFC2C-KIT	100 zinc clips for 25 x 16 plastic trunking c/w 100 cavity fixings & screws	1
FFC4C-KIT	50 zinc clips for 40 x 25 plastic trunking c/w 50 cavity fixings & screws	1

#### Kit Tubs – External – Masonry

Part No.	Description	Qty
FFC2EXTM-KIT	100 clips for 25 x 16 plastic trunking c/w 200 masonry screws, washers & 1 x 4mm drill	1
FFC4EXTM-KIT	50 clips for 40 x 25 plastic trunking c/w 100 masonry screws, washers & 1 x 4mm drill	1

#### Kit Tubs – External – Cavity

Part No.	Description	Qty
FFC2EXTC-KIT	50 clips for 25 x 16 plastic trunking c/w 100 cavity fixings & screws	1
FFC4EXTC-KIT	50 clips for 40 x 25 plastic trunking c/w 100 cavity fixings & screws	1



#### Kit Tubs – External – Masonry – Flat Clip Version

Part No.	Description	Qty
FFC1EXTM- KIT-W	100 White flat clips for 16 x 16 plastic trunking c/w 100 masonry screws & 1 x 4mm drill	1
FFC1EXTM- KIT-R	100 Red flat clips for 16 x 16 plastic trunking c/w 100 masonry screws & 1 x 4mm drill	1
FFC2EXTM- KIT-W	100 White flat clips for 25 x 16 plastic trunking c/w 100 masonry screws & 1 x 4mm drill	1
FFC2EXTM- KIT-R	100 Red flat clips for 25 x 16 plastic trunking c/w 100 masonry screws & 1 x 4mm drill	1
FFC4EXTM- KIT-W	50 White flat clips for 40 x 25 plastic trunking c/w 50 masonry screws & 1 x 4mm drill	1
FFC4EXTM- KIT-R	50 Red flat clips for 40 x 25 plastic trunking c/w 50 masonry screws & 1 x 4mm drill	1

#### Kit Tubs – External – Cavity – Flat Clip Version

Part No.	Description	Qty
FFC1EXTC-KIT-W	100 White flat clips for 16 x 16 plastic trunking c/w 100 cavity fixings & screws	1
FFC1EXTC-KIT-R	100 Red flat clips for 16 x 16 plastic trunking c/w 100 cavity fixings & screws	1
FFC2EXTC-KIT-W	50 White flat clips for 25 x 16 plastic trunking c/w 50 cavity fixings & screws	1
FFC2EXTC-KIT-R	50 Red flat clips for 25 x 16 plastic trunking c/w 50 cavity fixings & screws	1
FFC4EXTC-KIT-W	50 White flat clips for 40 x 25 plastic trunking c/w 50 cavity fixings & screws	1
FFC4EXTC-KIT-R	50 Red flat clips for 40 x 25 plastic trunking c/w 50 cavity fixings & screws	1



# **Firefly™ Products**

# Firefly™ Multi Hold Clip



Fire resistant multi-hold hanger. Can be fixed to threaded rod or with a masonry screw. Two sizes available. Release the spring wire hooks to add or subtract cables or pipes.

Part No.	Description	Pack Qty
FFMHC75	Zinc plated multi-hold, multi-use hanger, frame size 75 x 25mm	50
FFMHC100	Zinc plated multi-hold, multi-use hanger, frame size 100 x 30mm	50

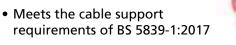
## Accessories

Part No.	Description	Pack Qty
FFC-MS4737M	Masonry screws & washers, 4.7mm x 37mm	100
FFC-CFSM	Metal cavity fixing & screws	50
DRLS4150	SDS drill bit 4mm x 150mm	1

# Firefly<sup>™</sup> Buckle Clips

Red coated mild steel clip for fire cables and other applications – 5mm hole. Can be used with a gas nail gun or with a standard masonry screw fixing.

- Easy to install
- Up to 10 times quicker to install than conventional cable clipping methods
- Clip designed to securely hold either one or two cables
- Cable diameter suitability = 8.0 to 8.5mm



Part No.	Description	Pack Qty
FFBC	Buckle Clip for one cable dia 8.0-8.5mm	50
FFBC1	Buckle Clip for two cables dia 8.0-8.5mm	50

## Firefly™ Fire Resistant Metal Cable Cleats

Important new regulations in the 18th Edition of BS7671 require all cables to be supported so that they are prevented from premature collapse in the event of fire.



Tragically, lives of firefighters and others have been lost when they have become entrapped by fallen cables in burning buildings.

#### This must not be allowed to happen again.

Firefly™ Fire Safety Clips and Cleats provide an all metal fire resistant range of cable fixings that will hold cables and cleats in place during a fire, thereby increasing the safety of firefighters and people escaping from burning buildings.

The Firefly<sup>™</sup> range of fire resistant clips and cleats covers all cable sizes from small data-comm cables to large 50mm diameter.

Firefly<sup>™</sup> Fire Resistant Cable Clips are simple, quick and easy to install and are economically priced.

They offer full compliance to the new regulations in the 18th Edition.

In short, the new 18th Edition details all the issues, Firefly™ Fire Resistant Support Clips and Cleats provide all the solutions and SWA supply all the full range of Firefly™ Clips and Cleats.

- Designed to save lives
- New BS7671 18th Edition Compliant
- Firefly All Metal Cable Fixings strong and impact resistant
- Sizes match existing Nº 5 to Nº 20 plastic cleats
- Clips & Cleats for all sizes in corrosion resistant finishes
- Coating powder coated LSF
- Adjustable cleat range also available
- Quick, simple & easy to install

## **INSTALL • PROTECT • COMPLY**





# **Firefly™ Products**

## Firefly<sup>™</sup> Fire Resistant Metal Cable Cleats cont.

#### **Fixed Cleat**

	Cable Diameter (mm)			
Part No.	Min	Мах	Fixing Hole Size (mm)	Pack Qty
FFMC5	10.1	12.7	6	100
FFMC6	12.6	15.7	6	100
FFMC7	15.1	17.8	6	100
FFMC8	17.7	20.3	6	50
FFMC9	20.2	22.8	6	50
FFMC10	22.7	25.4	6	50
FFMC11	25.3	27.7	6	50
FFMC12	27.6	30.5	6	50
FFMC14	30.4	35.5	6	50
FFMC16	35.4	40.6	6	50
FFMC18	40.5	45.7	6	50
FFMC20	45.6	50.8	6	50

#### **Key Hole Fixing Version**

Part No.	Description	Pack Qty
FFMC5KH	Metal, quick-fit, key hole cleat 10.1-12.7mm	100
FFMC6KH	Metal, quick-fit, key hole cleat 12.6-15.7mm	100
FFMC7KH	Metal, quick-fit, key hole cleat 15.1-17.8mm	100
FFMC8KH	Metal, quick-fit, key hole cleat 17.7-20.3mm	50
FFMC9KH	Metal, quick-fit, key hole cleat 20.2-22.8mm	50
FFMC10KH	Metal, quick-fit, key hole cleat 22.7-25.4mm	50
FFMC11KH	Metal, quick-fit, key hole cleat 25.3-27.7mm	50
FFMC12KH	Metal, quick-fit, key hole cleat 27.6-30.5mm	50
FFMC14KH	Metal, quick-fit, key hole cleat 30.4-35.5mm	50



### Adjustable Cleat

	Cable Diameter (mm)			
Part No.	Min	Мах	Fixing Hole Size (mm)	Pack Qty
FFAMC1220	12.7	20	6	50
FFAMC2035	20	35.5	6	50
FFAMC3550HD	35.5	50	6	50

N.B. Masonry screws must be used to comply with BS 7671, see page 48





# **Firefly™ Products**





Hardened Masonry Nails may shatter if not hit squarely. Wear suitable eye protection during installation.

## Firefly™ Fire Resistant Metal Nail-In Cable Clips

## **INSTALL • PROTECT • COMPLY**

All cables must be supported by metal fixings to prevent premature collapse in the event of a fire.

Firefly Nail-In Cable Clips to comply with 18th Edition Wiring Regulations.

Twin & earth versions available in white & grey. Round versions available in red to suit FP200 cable.

- Supplied with retained masonry nail for easy installation
- Designed to save lives
- BS7671 18th Edition compliant
- Quick, simple & easy to install



### **Round Metal Nail-In Cable Clips**

Part No.	Description	Pack
FFNCR8R	8mm Firefly nail clip round red, for 1.5mm 2 core & earth FP200 cable	100
FFNCR9R	9mm Firefly nail clip round red, for 1.5mm 3 core & earth FP200 cable	100
FFNCR10R	10mm Firefly nail clip round red, for 2.5mm 2 core & earth FP200 cable	100
FFNCR11R	11mm Firefly nail clip round red, for 2.5mm 3 core & earth FP200 cable	100



#### Flat Twin & Earth Metal Nail-In Cable Clips

Part No.	Description	Pack
FFNC1G	Firefly nail clip 1.0mm <sup>2</sup> twin & earth - grey	100
FFNC1W	Firefly nail clip 1.0mm <sup>2</sup> twin & earth - white	100
FFNC15G	Firefly nail clip 1.5mm <sup>2</sup> twin & earth - grey	100
FFNC15W	Firefly nail clip 1.5mm <sup>2</sup> twin & earth - white	100
FFNC25G	Firefly nail clip 2.5mm <sup>2</sup> twin & earth - grey	100
FFNC25W	Firefly nail clip 2.5mm <sup>2</sup> twin & earth - white	100
FFNC4G	Firefly nail clip 4.0mm <sup>2</sup> twin & earth - grey	100
FFNC4W	Firefly nail clip 4.0mm <sup>2</sup> twin & earth - white	100
FFNC6G	Firefly nail clip 6.0mm <sup>2</sup> twin & earth - grey	100
FFNC6W	Firefly nail clip 6.0mm <sup>2</sup> twin & earth - white	100



# **Firefly™ Products**

## Firefly™ 'Selekt-A-Bag' Range

### **INSTALL • PROTECT • COMPLY**

#### All cables must be supported by metal fixings to prevent premature collapse in the event of a fire.

Firefly Clips & Cleats supplied in handy polybags of 10. See adjacent pages for full product details.

#### **Firefly™ Internal Clips**

Part No.	Description	Pack Qty
FFC1-PK10	For 16x16 plastic trunking	10
FFC2-PK10	For 25x16 plastic trunking	10
FFC4-PK10	For 40x25 plastic trunking	10



#### Firefly™ External Clips

Part No.	Description	Pack Qty
FFC1EXTR-PK10	For 16x16 plastic trunking - Red	10
FFC1EXTW-PK10	For 16x16 plastic trunking - White	10
FFC2EXTR-PK10	For 25x16 plastic trunking - Red	10
FFC2EXTW-PK10	For 25x16 plastic trunking - White	10
FFC4EXTR-PK10	For 40x25 plastic trunking - Red	10
FFC4EXTW-PK10	For 40x25 plastic trunking - White	10



#### **Firefly™ Buckle Clips**

Part No.	Description	Pack Qty
FFBC-PK10	Buckle Clip for one cable dia 8.0-8.5mm	10
FFBC1-PK10	Buckle Clip for two cables dia 8.0-8.5mm	10



#### Firefly<sup>™</sup> Round Conduit Clips

Part No.	Description	Pack Qty
FFRC20B-PK10	Round Conduit Clip - 20mm Black	10
FFRC20W-PK10	Round Conduit Clip - 20mm White	10
FFRC25B-PK10	Round Conduit Clip - 25mm Black	10
FFRC25W-PK10	Round Conduit Clip - 25mm White	10





#### Firefly™ Round Conduit Clips Key Hole Fixing Version

Part No.	Description	Pack Qty
FFCC20WKH-PK10	Metal, quick-fit, key hole, conduit clip, 20mm white	10
FFCC20BKH-PK10	Metal, quick-fit, key hole, conduit clip, 20mm black	10
FFCC25WKH-PK10	Metal, quick-fit, key hole, conduit clip, 25mm white	10
FFCC25BKH-PK10	Metal, quick-fit, key hole, conduit clip, 25mm black	10
FFCC32WKH-PK10	Metal, quick-fit, key hole, conduit clip, 32mm white	10
FFCC32BKH-PK10	Metal, quick-fit, key hole, conduit clip, 32mm black	10



# **Firefly™ Products**

## Firefly<sup>™</sup> 'Selekt-A-Bag' Range cont.

**Firefly™ Metal Cable Cleats** 



Part No.	Description	Pack Qty
FFMC5-PK10	Metal Cleat 10.1-12.7mm	10
FFMC6-PK10	Metal Cleat 12.6-15.7mm	10
FFMC7-PK10	Metal Cleat 15.1-17.8mm	10
FFMC8-PK10	Metal Cleat 17.7-20.3mm	10
FFMC9-PK10	Metal Cleat 20.2-22.8mm	10
FFMC10-PK10	Metal Cleat 22.7-25.4mm	10
FFMC11-PK10	Metal Cleat 25.3-27.7mm	10
FFMC12-PK10	Metal Cleat 27.6-30.5mm	10
FFMC14-PK10	Metal Cleat 30.4-35.5mm	10



#### **Key Hole Fixing Version**

Part No.	Description	Pack Qty
FFMC5KH-PK10	Metal, quick-fit, key hole cleat 10.1-12.7mm	10
FFMC6KH-PK10	Metal, quick-fit, key hole cleat 12.6-15.7mm	10
FFMC7KH-PK10	Metal, quick-fit, key hole cleat 15.1-17.8mm	10
FFMC8KH-PK10	Metal, quick-fit, key hole cleat 17.7-20.3mm	10
FFMC9KH-PK10	Metal, quick-fit, key hole cleat 20.2-22.8mm	10
FFMC10KH-PK10	Metal, quick-fit, key hole cleat 22.7-25.4mm	10
FFMC11KH-PK10	Metal, quick-fit, key hole cleat 25.3-27.7mm	10
FFMC12KH-PK10	Metal, quick-fit, key hole cleat 27.6-30.5mm	10
FFMC14KH-PK10	Metal, quick-fit, key hole cleat 30.4-35.5mm	10









CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk 52



# **Cable Ties**

## Stainless Steel Roller-Ball Lock Cable Ties

- Stainless steel 316L to BS EN 1008:1995
- A unique locking ball mechanism that allows the tie to be quickly and easily installed.
- Ideal for use in environmentally harsh conditions where subjected to various chemicals, acids, salts and high temperatures.
- Polyester coated LSZH (low smoke, zero halogen) ties also available providing additional insulation and protection to the bundle materials.

Part No.		Dimensions mm			Min. Tensile Strength kg	
Uncoated	Coated	Length	Width	Bundle Dia.	Uncoated	Coated
SSTRB200-4.6	SSTRB200-4.6BLK	201	4.6	50	45	45
SSTRB260-4.6	SSTRB260-4.6BLK	266	4.6	72	45	45
SSTRB300-4.6	SSTRB300-4.6BLK	300	4.6	81	45	45
SSTRB360-4.6	SSTRB360-4.6BLK	362	4.6	102	45	45
SSTRB360-7.9	SSTRB360-7.9BLK	362	7.9	102	45	79
SSTRB520-7.9	SSTRB520-7.9BLK	521	7.9	152	113	79
SSTRB680-7.9	SSTRB680-7.9BLK	679	7.9	203	113	79
SSTRB840-7.9	n/a	838	7.9	254	113	79

Pack Quantity: 100, except 838 – Pk50

	D	imensions in mi		
Part No.	Length	Width	Bundle Dia.	Min. Tensile Strength kg
SSTRB200-4.6RED	201	4.6	50	45
SSTRB260-4.6RED	266	4.6	72	45
SSTRB300-4.6RED	300	4.6	81	45
SSTRB360-4.6RED	362	4.6	102	45

Pack Quantity: 100

## **Stainless Steel Releasable Cable Ties**

- The unique buckle design provides quick, easy application which can be unfastened for re-using.
- Ideal for use in environmentally harsh conditions where subjected to various chemicals, acids, salts and high temperatures.
- Black Nylon coated ties also available providing additional chemical and weathering resistance properties as well as providing insulation and additional protection to the bundle materials.

#### Material:

Stainless steel AISI304 (Uncoated) Stainless steel AISI304 (Coated)

**Operating temp range**: -80°C to +538°C

Uncoated	Dimensions (mm)					
Part No.	Length Width Bundle Dia.					
SSTNR150-6	150	6.3	25			
SSTNR225-6	225	6.3	63			
SSTNR300-6	300	6.3	86			
SSTNR450-6	450	6.3	137			
SSTNR610-6	610	6.3	185			
Pack Quantity: 100						

Coated	Diı	nensior	ons (mm)			
Part No.	Length	Width	Bundle Dia.			
SSTNR229-6NC	229	6.3	63			
SSTNR305-6NC	305	6.3	86			
SSTNR457-6NC	457	6.3	137			
SSTNR457-9NC	457	9.5	137			
Pack Quantity: 100						

**Material**: Stainless steel 316L

**Operating temp range**: -40°C to +300°C (Uncoated) -40°C to +140°C (Coated)

Approval: UL 62275 (Uncoated) Fire test: BS 5839-1:2013 (Section 26.2d)









# **Fixing Band & Buckles**

## **Stainless Steel Banding Tape**

- Type AISI304 stainless steel
- Excellent corrosion resistance
- Ideal for fixing insulation, bundling and securing of cables and pipes



	Diı			
Part No.	Length	Width	Thickness	Weight in kg
SSBT9	30.5	9.5	0.6	1.4
SSBT12	30.5	12.7	0.7	2.1
SSBT16	30.5	16.0	0.7	2.7
SSBT19	30.5	19.0	0.7	3.2

## **Stainless Steel Cable Tie Mount**

A durable and strong cable tie mount suitable for the SWA range of stainless steel cable ties – available with an M6 fixing hole to accommodate a wide range of fixing methods.

- For indoor and outdoor use, fully weather and UV resistant
- Ideal for hazardous environments
- Fire and corrosion resistant
- Material: 316L Stainless Steel

Working temp range: -80°C to +538°C Flammability: Non-flammable

	Dimensions in mm				
Part No.	Length	Width	Height	Fixing Hole Size in mm	Max. Tie Width in mm
SSTB	29.2	15.0	5.2	6.2	10.0

Pack Quantity: 50

## Fire Safety Clips for Trunking

The safe way to fix fire resistant cables inside cable trunking.

- Tested and Approved to BS 5839-1 requirement
- Fold-over tabs for quick and easy fixing

Part No.	Description	Performance	Trunking Size	Pack Qty
FSC2	Zinc plated steel	Melt point over 1000°C	25 x 16mm	50
FSC4	Zinc plated steel	Melt point over 1000°C	40 x 25mm	50

## **Stainless Steel Buckles**

Part No.	To Suit Band	Box Qty
SSB9	SSBT9 (9.5mm width)	100
SSB12	SSBT12 (12.7mm width)	100
SSB16	SSBT16 (16mm width)	100
SSB19	SSBT19 (19mm width)	100



## **Application Tools**

**SSBTT19** – Mechanical tensioning tool suitable for stainless steel strapping band up to 19mm width.



Cable tie tensioning gun available: SSTCT1

See Page 171.







# **Mineral-Insulated Products**

## **MICC Products**

# What is Mineral-Insulated Copper-Clad cable or MICC cable for short?

**(Ex**)

MICC is a specialised electrical cable made from copper conductors inside a copper sheath, insulated by inorganic magnesium oxide powder.

Approved by strict electrical codes, it is installed in areas of high fire risk where total critical fire protection is paramount. In designated fire tests representative of actual fire conditions, it has been shown that it will survive longer than the structure. In the event of a fire, the use of MICC cabling ensures installation reliability for power and control circuits of critical equipment including alarm installations, fire pumps and smoke control systems.

Our quality range of MICC accessories is the perfect partner for MICC cabling. Manufactured to the most stringent standards and the highest approved safety regulations, you can't buy better.

To complement the accessory range, we also have a superb range of MICC tools made to our usual high standard, making your job just that little bit easier.



#### Glands

For use on MICC cables, the glands are compatible with Zone 1 & 2 EExd flameproof enclosures.



Clips & Saddles

C106 copper with a low smoke & fume coating available in a range of colours to secure MICC cabling.



**Pots & Seals** Comprising of pots and seals with earth tail, sealing compound and stub caps.



### **Gland Shrouds** Available in PVC and low

Available in PVC and low smoke material in a range of colours.



**RMX – Sealing Compound** For filling cavities and making airtight/watertight joints in electrical equipment.





# **Mineral-Insulated Products**

## **MICC Accessories**

	Part No.							
Cable Size	Gland	Standard Type Plain Seals	Pots & Seals c/w earth tails	PVC Shroud	LSF Shroud			
2L1.0	RM2L1.0-10	RPS2L1.0-10	RPSL2L1.0-10	RHG20-10	RXG20-10			
2L1.5	RM2L1.5-10	RPS2L1.5-10	RPSL2L1.5-10	RHG20-10	RXG20-10			
2L2.5	RM2L2.5-10	RPS2L2.5-10	RPSL2L2.5-10	RHG20-10	RXG20-10			
3L1.0	RM3L1.0-10	RPS3L1.0-10	RPSL3L1.0-10	RHG20-10	RXG20-10			
3L1.5	RM3L1.5-10	RPS3L1.5-10	RPSL3L1.5-10	RHG20-10	RXG20-10			
3L2.5	RM3L2.5-10	RPS3L2.5-10	RPSL3L2.5-10	RHG20-10	RXG20-10			
4L1.0	RM4L1.0-10	RPS4L1.0-10	RPSL4L1.0-10	RHG20-10	RXG20-10			
4L1.5	RM4L1.5-10	RPS4L1.5-10	RPSL4L1.5-10	RHG20-10	RXG20-10			
4L2.5	RM4L2.5-10	RPS4L2.5-10	RPSL4L2.5-10	RHG20-10	RXG20-10			
2L4.0	RM2L4.0-10	RPS2L4.0-10	RPSL2L4.0-10	RHG20-10	RXG20-10			
-	-	-	-	RHG25-10	RXG25-10			

Pack Quantities: 10

RHG20 shrouds available in orange, red, white and black RHG25 shrouds also available in orange, white and red

## **Clips & Saddles**

A range of clips and saddles to compliment fire resistant type cables in securing them to any range of surfaces.

#### **Raw Material**

Stamped from chamfered edge copper strip C106.

#### Coating (RCHL and RSFL)

Chemical type: Polyester Application: Electrostatic spray Dry film thickness: from 40-100 microns (typically 50 microns)

#### **Mechanical Properties**

Adhesion (BS 3900 E3): Pass 1 mm cross-hatch, class 0 Impact Resistance (BS 3900 E3): Pass 220"/ib indentation to 2.5mm Flexibility (BS 3900 E11): Pass 1/4" conical mandrel Erichsen Cupping (BS 3900 E4): Pass 8mm Scratch Resistance (BS 3900 E2): Pass 400gms no penetration to substrate

Cable Ciae	Plastic coated clips	LSF Powder coated clips	Bare copper clips	Plastic coated saddles	LSF Powder coated saddles	Cable Dia	meter mm
Cable Size	RCHJ*-50	RCHL*-50	RC(size)-50	RSFJ*-50	RSFL*-50	Covered	Bare
2L1.0	30 (5.25)	26 (4)	20 (4)	272 (4)	272 (4)	6.4	5.1
2L1.5	32 (5.25)	28 (4)	22 (4)	302 (4)	302 (4)	7	5.7
2L2.5	34 (5.25)	30 (5.25)	26 (4)	342 (5.2)	342 (5.2)	7.9	6.6
2L4.0	40 (5.25)	37 (5.25)	30 (5.25)	382 (5.2)	382 (5.2)	9.2	7.7
3L1.0	32 (5.25)	28 (4)	22 (4)	302 (4)	302 (4)	7.1	5.8
3L1.5	34 (5.25)	32 (5.25)	24 (4)	342 (5.2)	342 (5.2)	7.7	6.4
3L2.5	37 (5.25)	34 (5.25)	28 (4)	342 (5.2)	342 (5.2)	8.8	7.3
4L1.0	34 (5.25)	32 (5.25)	24 (4)	342 (5.2)	342 (5.2)	7.6	6.3
4L1.5	37 (5.25)	24 (4)	28 (4)	342 (5.2)	342 (5.2)	8.3	7
4L2.5	43 (5.5)	40 (5.25)	32 (5.25)	422 (5.2)	422 (5.2)	9.6	8.1
7L2.5	47 (5.5)	43 (5.5)	37 (5.25)	462 (5.6)	-	-	-
2H2.5	51 (5.5)	47 (5.5)	34 (5.25)	-	-	-	-
2H10.0	-	-	47 (5.5)	-	-	-	-

Pack Quantities: 50

N.B. Hole Size in mm shown in brackets

\*Suffix Black, Red, Orange, White



# **FP200 Fire Protection Cable Accessories**

## **FP200 Clips & Saddles Selection Chart**



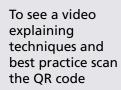
		Part No.						
Cable Size mm²	Cores	Plastic Coated Clips	Plastic Coated Saddles	LSF Powder Coated Clips	LSF Powder Coated Saddles			
1.0	2 core + earth	RCHJ32*-50	RSFJ302*-50	RCHL28*-50	RSFL302*-50			
1.0	3 core + earth	RCHJ34*-50	RSFJ342*-50	RCHL32*-50	RSFL342*-50			
1.0	4 core + earth	RCHJ37*-50	RSFJ342*-50	RCHL34*-50	RSFL342*-50			
1.5	2 core + earth	RCHJ34*-50	RSFJ342*-50	RCHL32*-50	RSFL342*-50			
1.5	3 core + earth	RCHJ37*-50	RSFJ342*-50	RCHL34*-50	RSFL342*-50			
1.5	4 core + earth	RCHJ40*-50	RSFJ382*-50	RCHL37*-50	RSFL422*-50			
2.5	2 core + earth	RCHJ40*-50	RSFJ382*-50	RCHL37*-50	RSFL422*-50			
2.5	3 core + earth	RCHJ43*-50	RSFJ422*-50	RCHL37*-50	RSFL422*-50			
2.5	4 core + earth	RCHJ47*-50	RSFJ462*-50	RCHL43*-50	RSFL462*-50			
4.0	2 core + earth	RCHJ47*-50	RSFJ462*-50	RCHL43*-50	RSFL462*-50			
4.0	3 core + earth	RCHJ47*-50	RSFJ462*-50	RCHL43*-50	RSFL462*-50			
4.0	4 core + earth	RCHJ47*-50	RSFJ462*-50	RCHL43*-50	RSFL462*-50			

Pack Quantity: 50

\*Suffix:BLK (black), RED (red), ORA (orange), WHI (white)

	Nominal Cross Sectional Area mm <sup>2</sup>	Construction	Mean Overall Diameter	Max. Conductor Resistance At 20°C ohms/km	Current Rating DC or Single Phase AC Enclosed Amps	Current Rating DC or Single Phase AC Clipped Direct Amps	Volt Drop DC or Single Phase AC mV / A / m
	1.0	1 / 1.13	8.0	18.1	13	15	44
Two Core	1.5	1 / 1.38	8.1	12.1	16.5	19.5	29
FP200	2.5	1 / 1.78	9.5	7.4	23	27	18
	4.0	7 / 0.85	11.6	4.6	30	36	11
	1.0	1 / 1.13	8.2	18.1	13	15	44
Three Core	1.5	1 / 1.38	8.4	12.1	16.5	19.5	29
FP200	2.5	1 / 1.78	10.4	7.4	23	27	18
	4.0	7 / 0.85	12.3	4.6	30	36	11
	1.0	1 / 1.13	8.5	18.1	13	15	44
Four Core	1.5	1 / 1.38	10	12.1	16.5	19.5	29
FP200	2.5	1 / 1.78	11.9	7.4	23	27	18
	4.0	7 / 0.85	13.5	4.6	30	36	11

P200 Gold® is also available in multi-core versions (7, 12 and 19 core configurations)







# **Mineral-Insulated Products**

## **Sealing Compound**

For filling cavities and making air-tight and watertight joints, especially in electrical equipment to exclude moisture.

Type: Non-oxidizing resin/oil based compound suitably filled with inert mineral fillers.

Appearance: Grey putty-like finish

Consistency: Putty-like

Flash Point: Minimum 200°C

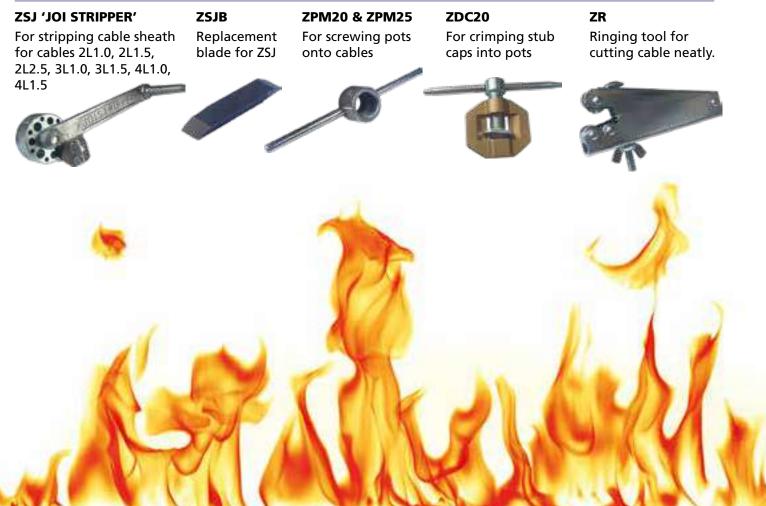
Temp. Range: 150°C continuous

Breakdown Strength: When tested in a cell with a 4mm gap at 18°C the compound withstood 25kV for 1 minute

Part No.	Pack Size
RMX	100g



## **MICC Tooling**









59	Storm® cable glands
60	Earthing nut™
61-69	Tauras™ cable glands
70-81	Cable glands & hazardous area cable glands
82-84	Cable glands accessories & hazardous area cable gland accessories
85-88	Cable gland sizing charts
89	Aluminium cable glands
90-93	SmartFit™ & consumer unit cable glands
94-96	Polyamide & EMC cable glands



CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT **WWW.SWAONLINE.CO.UK** 

# **STORM®** Cable Glands

The STORM<sup>®</sup> range from SWA promises nothing less than a revolution in terminating armoured and non-armoured, SY & CY braided cables.

Offering improved ingress protection (IP68) and faster fitting over conventional armoured cable glands, the low-cost STORM<sup>®</sup> glands can be used from -20°C to +80°C.

- Approved to BS EN 62444:2013
- Range from 20S to 32mm
- Fast fit
- No shroud
- IP68 rated
- Multiple cable types
- Non-corrosive
- UV stabilised
- Zero halogen

#### **Standard version**

(c/w Gland, Brass Lock Nut & Earth Tag)

Part No.	Description	Pack Quantity
STORM20S	STORM Cable Gland M20S	2
STORM20	STORM Cable Gland M20	2
STORM25	STORM Cable Gland M25	2
STORM32	STORM Cable Gland M32	2

#### **STAURAS** version

#### (c/w EarthingNut™, Crimp Lugs & Allen Key)

Part No.	Description	Pack Quantity
TSTORM20S	STORM Cable Gland M20S	2
TSTORM20	STORM Cable Gland M20	2
TSTORM25	STORM Cable Gland M25	2
TSTORM32	STORM Cable Gland M32	2

**SIZING CHART** 

# STORM<sup>®</sup> Cable Glands for armoured, non-armoured, SY & CY cable

SWA	Cable acceptane	Assembled			
Gland Size	Inner Sheath Ø	Cable Diameter	Length (mm)		
205	12.0 max	10.5 - 16.0	48.0		
20	16.0 max	15.5 - 21.0	51.0		
25	20.5 max	20.5 - 27.5	59.0		
32	27.5 max	27.0 - 35.0	69.0		



A giana revolution is coming...



N.B. EarthingNut™ details on page 60)

> Scan this QR code to view product demo





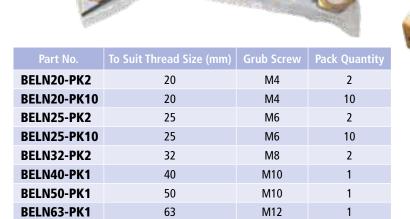
# **Earthing Nut**<sup>™</sup>

## EarthingNuts<sup>™</sup> – So simple it's nuts to use anything else!

R

# EarthingNuts<sup>™</sup> will change the way you terminate and earth metal cable glands forever!

- No extra drilling required saving up to **60%** on fitting time than conventional methods and does not compromise the enclosure IP rating
- Improved safety during fitting and in service
- Fitted right first time every time
- Replaces the traditional "banjo" earth-tag and lock-nut
- Unique cutting teeth bite into the box wall so that the gland can be tightened with one tool from the outside
- Teeth provide voltage equalising connection to EMI shielding
- Enable a direct high integrity connection for protective earthing
- Grub screw secures nut to the gland ensuring continuity, even if the enclosure becomes damaged



Supplied with grub screw(s), connecting bolt and Allen Key

75

BELN75-PK1

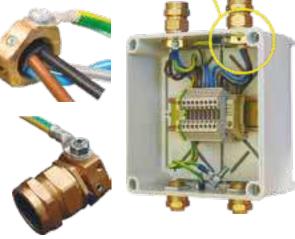
Patented in the UK and Ireland No. EP1790053. Other international patents granted and pending.

The Squirrel logo is a Registered Trade Mark of Cable Terminology Ltd.

Electrical Industry Awards Winner INNOVATIVE POWER PRODUCT OF THE YEAR







To see a video showing a demonstration, scan this QR code



M12

1



## **ALT Tauras™ Cable Glands**

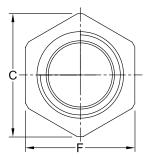
#### Tauras<sup>™</sup> BW ALT Range

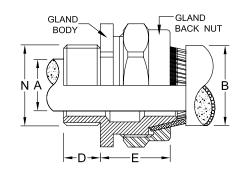


#### **2 PART INDOOR**

**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination.

**Operating temp**: -80°C to +300°C **Ingress protection**: IP2X









Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR

		Entry Thread		Cable Acceptance Details			Hexagonal Details		Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Diameter A max	Diameter B max	Armour wire size T	A/F F	A/C C	E
TBW20S* PACK ALT-EN	2	20 x 1.5	10	11.4	15.5	0.90	20.5	22.9	16.0
TBW20* PACK ALT-EN	2	20 x 1.5	10	14.6	18.3	0.90	23.5	26.0	16.0
TBW25* PACK ALT-EN	2	25 x 1.5	10	20.0	25.4	1.25	32.0	35.5	18.0
TBW32* PACK ALT-EN	2	32 x 1.5	10	26.6	32.2	1.60	38.0	42.2	20.0
TBW40* PACK ALT-EN	1	40 x 1.5	15	31.1	38.5	1.60	46.0	51.0	22.0
TBW50S* PACK ALT-EN	1	50 x 1.5	15	37.0	45.0	2.00	55.0	61.0	25.0
TBW50* PACK ALT-EN	1	50 x 1.5	15	42.4	52.0	2.00	60.0	66.6	25.0
TBW63S* PACK ALT-EN	1	63 x 1.5	15	48.5	59.0	2.50	68.0	75.5	28.0
TBW63* PACK ALT-EN	1	63 x 1.5	15	55.2	64.7	2.50	74.0	82.2	28.0

All dimensions are in mm. \*Not included in BS 6121

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TBW20SLSF PACK ALT-EN

To see a video showing a demonstration, scan this QR code





# Tauras<sup>™</sup> Cable Glands

## **TPBW Range – Tauras™ PEX® BW Indoor Brass Cable Gland Pack**

Complete with award-winning

EarthingNut™ INNOVATIVE POWER PRODUCT

OF THE YEAR

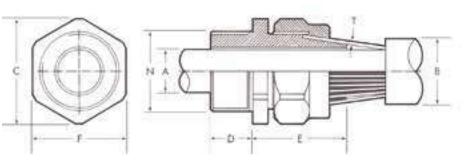


**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination.

**Operating temp**: -80°C to +300°C **Ingress protection**: IP2X

Approval: BS 6121 Part 1:2005





Everything supplied to terminate the gland in one convenient kit

convenient kit		Entry Thread		Ca	Hexagonal Details		Assembled Length			
	Part No.	Pack Quantity	Diameter N	Length D	Diameter A max	Diameter B max	Armour wire size T	A/F F	A/C C	E
T	PBW20S* PACK-EN	2	20	10	11.8	15.8	0.90/1.25	22.0	24.4	16.0
T	PBW20* PACK-EN	2	20	10	13.8	19.5	0.90/1.25	25.0	27.7	17.0
T	PBW25* PACK-EN	2	25	10	19.8	27.0	1.25/1.60	33.0	36.6	18.0
T	PBW32* PACK-EN	2	32	10	26.4	33.5	1.60/2.00	40.0	44.4	21.0
T	PBW40* PACK-EN	1	40	15	32.4	40.1	1.60/2.00	48.0	53.3	23.0
T	PBW50* PACK-EN	1	50	15	44.0	52.6	2.00/2.50	62.5	69.4	25.0
T	PBW63* PACK-EN	1	63	15	56.2	65.5	2.50	76.0	84.4	28.0

All dimensions are in mm.

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. TPBW20SLSF PACK-EN

See page 60 for more information on Earthing Nuts™





### Tauras<sup>™</sup> Cable Glands

#### TBW Range – Tauras™ BW Premier Range Brass Cable Gland Pack



#### **2 PART INDOOR**

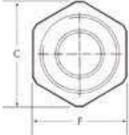
**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination.

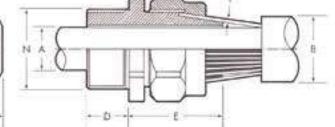
**Operating temp**: -80°C to +300°C **Ingress protection**: IP2X **Approval**: BS 6121 Part 1:2005





Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR





		Entry T	hread	Ca	ble Acceptanc	Hexagon	al Details	Assembled Length	
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
TBW20S* PACK-EN	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	22.0	24.4	16.0
TBW20* PACK-EN	2	20	10	11.0 - 13.8	15.5 - 20.8	0.90/1.25	27.0	30.0	18.0
TBW25* PACK-EN	2	25	10	13.0 - 19.8	20.3 - 27.5	1.25/1.60	34.0	37.7	20.0
TBW32* PACK-EN	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2.00	41.0	45.5	21.0
TBW40* PACK-EN	1	40	15	25.0 - 32.4	33.0 - 40.9	1.60/2.00	50.0	55.5	23.0
TBW50S* PACK-EN	1	50	15	31.5 - 38.0	39.4 - 46.3	2.00/2.50	60.0	66.6	24.5
TBW50* PACK-EN	1	50	15	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	24.5
TBW63S* PACK-EN	1	63	15	42.5 - 49.0	52.1 - 61.5	2.50	75.0	83.2	29.0
TBW63* PACK-EN	1	63	15	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	29.0
TBW75S* PACK-EN	1	75	20	54.5 - 62.0	64.8 - 73.0	2.50	90.0	100.0	33.0
TBW75* PACK-EN	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	33.0
TBW90* PACK-EN	1	*90	20	66.0 - 79.0	77.0 - 90.0	2.50/3.15	106.0	117.6	37.0

All dimensions are in mm. \*Not included in BS 6121

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TBW20SLSF PACK-EN

To see a video showing a demonstration, scan this QR code





## Tauras<sup>™</sup> Cable Glands

#### TBWL Range – Tauras™ BWL Premier Range Brass Cable Gland Pack



#### **3 PART INDOOR**

**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination and additional armour locking ring.

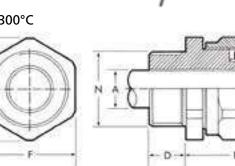
ċ

**Operating temp**: -80°C to +300°C

Ingress protection: IP2X EN60529

Approval:

BS 6121 Part 1:2005





Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR

	- 104		1						
		Entry T	Entry Thread		ble Acceptanc	e Details	Hexagonal Details		Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
TBWL20S* PACK-EN	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	26.0
TBWL20* PACK-EN	2	20	10	11.0 - 13.8	15.5 - 20.8	0.90/1.25	30.0	33.3	28.0
TBWL25* PACK-EN	2	25	10	13.0 - 19.8	20.3 - 27.5	1.25/1.60	36.0	42.2	30.0
TBWL32* PACK-EN	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	33.0
TBWL40* PACK-EN	1	40	15	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	35.0
TBWL50* PACK-EN	1	50	15	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	37.0
TBWL63* PACK-EN	1	63	15	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	43.0
TBWL75* PACK-EN	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	48.0
Tauras™ BWL Long T	hread V	ersions							
TBWL20SLT* PACK-EN	2	20	12	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	26.0
TBWL20LT* PACK-EN	2	20	12	11.0 - 13.8	15.5 - 20.8	0.90/1.25	30.0	33.3	28.0
TBWL25LT* PACK-EN	2	25	12	13.0 - 19.8	20.3 - 27.5	1.25/1.60	36.0	42.2	30.0
TBWL32LT* PACK-EN	2	32	12	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	33.0
TBWL40LT* PACK-EN	1	40	17	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	35.0
TBWL50LT* PACK-EN	1	50	17	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	37.0
TBWL63LT* PACK-EN	1	63	17	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	43.0
TBWL75LT* PACK-EN	1	75	22	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	48.0

All dimensions are in mm.

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TBWL20SLSF PACK-EN

See page 60 for more information on Earthing Nuts™





### **ALT Tauras™ Cable Glands**

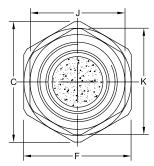
#### Tauras<sup>™</sup> CW ALT Range

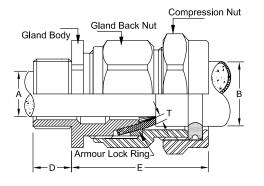


**Application**: Brass indoor and outdoor gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on the outer cable sheath. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

**Operating temp**: -20°C to +80°C

Ingress protection: IP66







Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR

		Entry Thread		Cable Acceptance Details			Hexagonal Details				Assembled Length
	Pack	Diameter	Lenath	Diameter	Diameter	Armour	Body & I	Back Nut	Compres	sion Nut	
Part No.	Quantity	N	D	A max	B min max	wire size T	A/F J	A/C K	A/F F	A/C C	E
TCW20S* PACK ALT-EN	2	20 x 1.5	10	11.8	12.8 - 15.5	0.90	22.0	24.4	24.0	26.6	38.0
TCW20* PACK ALT-EN	2	20 x 1.5	10	13.6	15.5 - 19.5	0.90	25.0	27.7	27.0	30.0	39.0
TCW25* PACK ALT-EN	2	25 x 1.5	10	20.0	22.0 - 26.5	1.25	33.0	36.6	35.0	38.8	44.0
TCW32* PACK ALT-EN	2	32 x 1.5	10	26.5	26.0 - 33.5	1.60	41.0	45.5	43.0	47.7	48.0
TCW40* PACK ALT-EN	1	40 x 1.5	15	32.1	33.0 - 39.5	1.60	48.0	53.3	51.0	56.6	52.0
TCW50S* PACK ALT-EN	1	50 x 1.5	15	37.0	39.5 - 45.0	2.00	55.0	61.0	58.0	64.4	55.0
TCW50* PACK ALT-EN	1	50 x 1.5	15	42.4	45.0 - 52.0	2.00	60.0	66.6	63.0	70.0	55.0
TCW63S* PACK ALT-EN	1	63 x 1.5	15	48.5	52.0 - 59.0	2.50	68.0	75.5	72.0	80.0	60.0
TCW63* PACK ALT-EN	1	63 x 1.5	15	55.2	59.0 - 66.0	2.50	75.0	83.3	79.0	87.7	60.0

All dimensions are in mm.

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TCW20SLSF PACK ALT-EN

To see a video showing a demonstration, scan this QR code





# Tauras<sup>™</sup> Cable Glands

#### **TPCW Range – Tauras™ PEX® CW Outdoor Brass Cable Gland Pack**



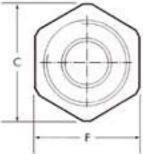
**Application**: Brass indoor and outdoor gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on the outer cable sheath. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

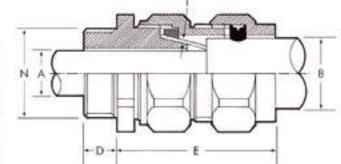
Operating temp: -20°C to +80°C Ingress protection: IP66 Approval: BS EN 62444:2013





Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR





		Entry T	hread	Cable A	cceptance D	etails		Hexagon	al Details		Assembled Length
	Pack	Diameter	Length	Diameter	Diameter	Armour	Body & I	Back Nut	Compres	sion Nut	
Part No.	Quantity	N	D	A min max	B min max	wire size T	A/F F	A/C C	A/F J	A/C K	E
TPCW20S* PACK-EN	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	23.0	25.6	24.0	26.7	38.0
TPCW20* PACK-EN	2	20	10	11.0 - 13.8	15.5 - 20.5	0.90/1.25	26.0	28.9	28.0	31.1	39.0
TPCW25* PACK-EN	2	25	10	13.0 - 20.0	20.3 - 27.0	1.25/1.60	34.0	37.7	35.5	39.5	45.0
TPCW32* PACK-EN	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2.00	42.0	46.8	46.0	51.2	48.0
TPCW40* PACK-EN	1	40	15	25.0 - 32.4	33.0 - 40.1	1.60/2.00	50.0	55.7	55.0	61.0	53.0
TPCW50S* PACK-EN	1	50	15	34.0 - 38.0	39.8 - 46.3	2.00/2.50	62.0	69.1	65.0	72.4	59.0
TPCW50* PACK-EN	1	50	15	37.0 - 44.2	46.0 - 52.6	2.00/2.50	62.0	69.1	65.0	72.1	59.0
TPCW63S* PACK-EN	1	63	15	43.0 - 49.0	52.3 - 61.5	2.50	76.0	84.7	80.0	89.2	66.0
TPCW63* PACK-EN	1	63	15	48.0 - 56.2	58.4 - 65.3	2.50	76.0	84.7	80.0	88.8	66.0
TPCW75S* PACK-EN	1	75	20	57.0 - 62.0	64.8 - 73.0	2.50	85.0	94.5	90.0	100.0	68.0
TPCW75* PACK-EN	1	75	20	60.0 - 67.0	71.0 - 78.0	2.50	90.0	100.0	95.0	105.0	68.0

All dimensions are in mm.

Pack content: Gland(s), shroud(s), EarthingNut<sup>M</sup>(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TPCW20SLSF PACK-EN

To see a video showing a demonstration, scan this QR code





### Tauras<sup>™</sup> Cable Glands

#### TCW Range – Tauras™ CW Premier Range Brass Cable Gland Pack



#### **4 PART OUTDOOR**

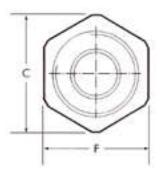
**Application**: Brass indoor and outdoor gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on the outer cable sheath. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

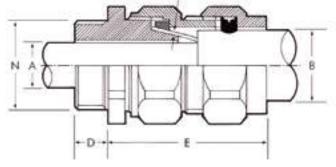
Operating temp: -20°C to +80°C Ingress protection: IP66 EN60529 Approval: BS EN 62444:2013





Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR





		Entry T	hread	Ca	ble Acceptanc	Hexagon	Assembled Length		
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
TCW20/16* PACK-EN	2	20	10	9.0	8.4 - 13.8	0.90	22.0	24.4	38.0
TCW20S* PACK-EN	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	40.0
TCW20* PACK-EN	2	20	10	11.0 - 13.8	15.5 - 20.8	0.90/1.25	30.0	33.3	41.0
TCW25* PACK-EN	2	25	10	13.0 - 19.8	20.3 - 27.5	1.25/1.60	38.0	42.2	44.0
TCW32* PACK-EN	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	48.0
TCW40* PACK-EN	1	40	15	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	52.0
TCW50S* PACK-EN	1	50	15	31.5 - 38.0	39.4 - 46.3	2.00/2.50	60.0	66.6	55.0
TCW50* PACK-EN	1	50	15	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	55.0
TCW63S* PACK-EN	1	63	15	42.5 - 49.0	52.1 - 61.5	2.50	75.0	83.2	60.0
TCW63* PACK-EN	1	63	15	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	60.0
TCW75S* PACK-EN	1	75	20	54.5 - 62.0	64.8 - 73.0	2.50	90.0	100.0	65.0
TCW75* PACK-EN	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	65.0
TCW90* PACK-EN	1	*90	20	66.0 - 79.0	77.0 - 90.0	2.50/3.15	110.0	122.1	70.0

All dimensions are in mm. \*Not included in BS EN 62444:2013

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TCW20/16LSF PACK-EN

See page 60 for more information on Earthing Nuts™





### Tauras<sup>™</sup> Cable Glands

#### **TE1W Range – Tauras™ E1W Premier Range Brass Cable Gland Pack**



**Application**: Brass indoor and outdoor gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on both the cable inner and outer sheaths. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

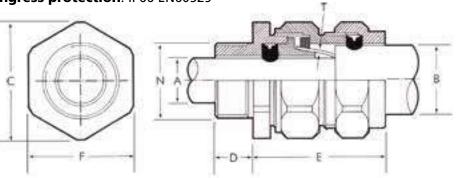
Operating temp: -20°C to +80°C Approval: BS EN 62444:2013 Ingress protection: IP66 EN60529



CE



Complete with awardwinning EarthingNut™ INNOVATIVE POWER PRODUCT OF THE YEAR



		Entry T	hread	Ca	ble Acceptanc	Hexagon	al Details	Assembled Length	
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
TE1W20/16* PACK-EN	2	20	15	3.5 - 9.0	8.4 - 13.8	0.90	22.0	24.4	40.0
TE1W20S* PACK-EN	2	20	15	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	42.0
TE1W20* PACK-EN	2	20	15	11.0 - 13.8	15.5 - 20.0	0.90/1.25	30.0	33.3	43.0
TE1W25* PACK-EN	2	25	15	13.0 - 19.8	20.3 - 27.5	1.25/1.60	38.0	42.2	46.0
TE1W32* PACK-EN	2	32	15	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	50.0
TE1W40* PACK-EN	1	40	20	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	54.5
TE1W50S* PACK-EN	1	50	20	31.5 - 38.0	39.4 - 46.3	2.00/2.50	60.0	66.6	57.5
TE1W50* PACK-EN	1	50	20	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	57.5
TE1W63S* PACK-EN	1	63	20	42.5 - 49.0	52.1 - 61.5	2.50	75.0	83.2	63.0
TE1W63* PACK-EN	1	63	20	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	63.0
TE1W75S* PACK-EN	1	75	20	54.5 - 62.0	64.8 - 73.0	2.50	90.0	100.0	68.0
TE1W75* PACK-EN	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	68.0

All dimensions are in mm.

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations. Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. TE1W20/16LSF PACK-EN

To see a video showing a demonstration, scan this QR code





### Tauras<sup>™</sup> Cable Glands

#### TE1FW Range – Tauras™ E1FW Premier Range Brass Cable Gland Pack

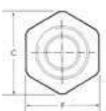


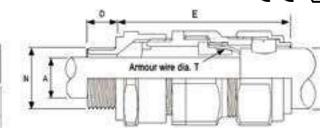
#### **HAZARDOUS AREAS**

Application: Dual certified flameproof Ex d and Increased Safety Ex e indoor and outdoor cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 hazardous areas with all types of circular armoured cable, providing a flameproof seal on the cable outer sheath.

Gland must be used as part of a certified assembly in surface installations only. Gland may not be used on a group IIC Ex d Enclosure that is larger than 2000cc volume.

Operating temp: -20°C to +100°C





Complete with awardwinning EarthingNut™ **INNOVATIVE POWER** PRODUCT OF THE YEAR

Degree of protection:

Ingress protection: IP67

**( F 〈**ɛ́x〉

IEC 60529

Certification:

ITS11ATEX17453X

(For Ex d & Ex e)



zone 21 & 22: EN 60079-31:2009

#### Code of protection category:

112 GD, Ex d IIC Gb / Ex e IIC Gb -20°C to +100°C, Ex tb IIIC -20°C to +100°C Db IP67, Equipment Zone 1, Zone 2, Zone 21 and Zone 22. Gas Groups IIA, IIB, IIC

#### **Compliance standards:**

EN 60079-0:2009, IEC 60079-0 :2011, EN 60079-1:2007 & EN 60079-7:2007

#### Cable type:

Wire Armour, Steel Wire Armoured Sealing area(s): Outer sheath of both the cables A & B (inner & outer sheath) Sealing material: Polyamide PTFE

	Entry Threads		Cak	ole Accepta	nce Diame	eter		He	exagor	nal Deta	al Details		nbled Igth
	Енцут	meaus	Cab	le A	Cab	le B	Armour	Body,	Body	Compr	ession		orox.
	Dia	Length	RR	RR	RR	RR	Wire	Lock	& GN	N		<b>C</b>	Un-
Part No.		D	Without min max	With min max	Without min max	With min max	Dia. т	A/F	A/C	A/F	A/C C	Comp. E	comp. E
TE1FW20/16 PACK-RC-EN	M20x1.5	16.5	3.5 - 6.0	5.9 - 8.5	8.4-10.8	10.7-13.2	0.9	22.0	24.4	24.0	26.6	55.0	70.0
TE1FW20S PACK-RC-EN	M20x1.5	16.5	8.0 - 9.75	9.65-11.5	12.9-14.4	14.3-15.8	0.90/1.25	24.0	26.6	26.0	28.8	59.0	74.0
TE1FW20 PACK-RC-EN	M20x1.5	16.5	11.0-12.25	12.15-13.5	15.5-18.2	18.1-20.8	0.90/1.25	30.0	33.3	32.0	35.5	64.0	81.0
TE1FW25 PACK-RC-EN	M25x1.5	16.5	13.0-16.25	16.15-19.5	20.3 - 23.8	23.7-27.2	1.25/1.60	38.0	42.2	41.0	45.5	71.0	91.0
TE1FW32 PACK-RC-EN	M32x1.5	16.5	19.0-22.25	22.15-25.5	26.7-30.1	30.0-33.5	1.60/2.00	46.0	51.1	48.0	53.3	77.0	100.0
TE1FW40 PACK-RC-EN	M40x1.5	22.0	25.0-28.5	28.4-32.0	33.0-36.5	36.4-39.9	1.60 /2.00	55.0	61.1	57.0	63.3	83.0	108.0
TE1FW50S PACK-RC-EN	M50x1.5	22.0	31.5-34.25	34.15-37.0	39.4-42.9	42.8-46.3	2.00/2.50	60.0	66.6	62.0	68.9	91.0	116.0
TE1FW50 PACK-RC-EN	M50x1.5	22.0	36.5-39.75	39.15-43.0	45.7-49.2	49.1 - 52.6	2.00/2.50	68.0	75.5	70.0	77.7	91.0	116.0
TE1FW63S PACK-RC-EN	M63x1.5	22.0	42.5-46.25	46.15-50.0	52.1 - 55.5	55.4-58.9	2.50	75.0	83.3	78.0	86.6	100.0	126.0
TE1FW63 PACK-RC-EN	M63x1.5	22.0	48.5-51.75	51.65-55.0	58.4-61.9	61.8-65.3	2.50	80.0	88.8	85.0	94.4	100.0	126.0

All dimensions are in mm.

Pack content: Gland(s), shroud(s), EarthingNut™(s) and crimp terminations.

See page 60 for more information on Earthing Nuts™





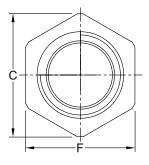
# **ALT Cable Glands**

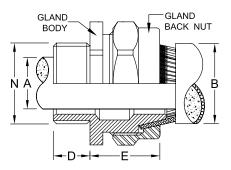
#### **ALT BW Range**

#### **2 PART INDOOR**

Application: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination.

**Operating temp**: -80°C to +300°C Ingress protection: IP2X EN60529







		Entry T	hread	Ca	ble Acceptano	Hexagon	Assembled Length		
Part No.	Pack Quantity	Diameter N	Length D	Diameter A max	Diameter B max	Armour wire size T	A/F F	A/C C	E
BW20S* PACK-ALT	2	20 x 1.5	10	11.4	15.5	0.90	20.5	22.9	16.0
BW20* PACK-ALT	2	20 x 1.5	10	14.6	18.3	0.90	23.5	26.0	16.0
BW25* PACK-ALT	2	25 x 1.5	10	20.0	25.4	1.25	32.0	35.5	18.0
BW32* PACK-ALT	2	32 x 1.5	10	26.6	32.2	1.60	38.0	42.2	20.0
BW40* PACK-ALT	1	40 x 1.5	15	31.1	38.5	1.60	46.0	51.0	22.0
BW50* PACK-ALT	1	50 x 1.5	15	42.4	52.0	2.00	60.0	66.6	25.0
BW63* PACK-ALT	1	63 x 1.5	15	55.2	64.7	2.50	74.0	82.2	28.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. BW20SLSF PACK-ALT



for more



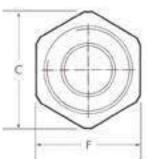
### **Cable Glands**

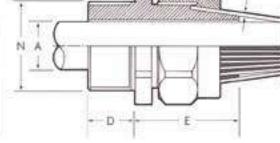
#### **PEX®BW Brass Cable Gland Pack**

#### **2 PART INDOOR**

**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination.

Operating temp: -80°C to +300°C Ingress protection: IP2X EN60529 Approval: BS 6121 Part 1:2005





		Entry T	Entry Thread		ble Acceptanc	ce Details	Hexagon	Assembled Length	
Part No.	Pack Quantity	Diameter N	Length D	Diameter A max	Diameter B max	Armour wire size T	A/F F	A/C C	E
PBW20S* PACK	2	20	10	11.8	15.8	0.90/1.25	22.0	24.4	16.0
PBW20* PACK	2	20	10	13.8	19.5	0.90/1.25	25.0	27.7	17.0
PBW25* PACK	2	25	10	19.8	27.0	1.25/1.60	33.0	36.6	18.0
PBW32* PACK	2	32	10	26.4	33.5	1.60/2.00	40.0	44.4	21.0
PBW40* PACK	1	40	15	32.4	40.1	1.60/2.00	48.0	53.3	23.0
PBW50S* PACK	1	50	15	38.0	46.3	2.00/2.50	56.0	62.2	24.0
PBW50* PACK	1	50	15	44.0	52.6	2.00/2.50	62.5	69.4	25.0
PBW63S* PACK	1	63	15	49.0	61.5	2.50	70.0	77.7	26.0
PBW63* PACK	1	63	15	56.2	65.5	2.50	76.0	84.4	28.0
PBW75S* PACK	1	75	20	62.0	71.6	2.50	85.0	94.4	36.0
PBW75* PACK	1	75	20	69.0	78.0	2.50	90.0	100.0	36.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. PBW20SLSF PACK

See page 60 for more information on Earthing Nuts™





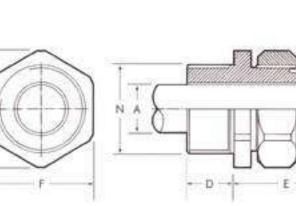
# **Cable Glands**

#### **BW Premier Range Brass Cable Gland Pack**

#### **2 PART INDOOR**

**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination.

Operating temp: -80°C to +300°C Ingress protection: IP2X EN60529 Approval: BS 6121 Part 1:2005



		Entry T	hread	Ca	ble Acceptanc	e Details	Hexagon	al Details	Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
BW20S* PACK	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	22.0	24.4	16.0
BW20* PACK	2	20	10	11.0 - 13.8	15.5 - 20.8	0.90/1.25	27.0	30.0	18.0
BW25* PACK	2	25	10	13.0 - 19.8	20.3 - 27.5	1.25/1.60	34.0	37.7	20.0
BW32* PACK	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2.00	41.0	45.5	21.0
BW40* PACK	1	40	15	25.0 - 32.4	33.0 - 40.9	1.60/2.00	50.0	55.5	23.0
BW50S* PACK	1	50	15	31.5 - 38.0	39.4 - 46.3	2.00/2.50	60.0	66.6	24.5
BW50* PACK	1	50	15	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	24.5
BW63S* PACK	1	63	15	42.5 - 49.0	52.1 - 61.5	2.50	75.0	83.2	29.0
BW63* PACK	1	63	15	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	29.0
BW75S* PACK	1	75	20	54.5 - 62.0	64.8 - 73.0	2.50	90.0	100.0	33.0
BW75* PACK	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	33.0
BW90* PACK	1	*90	20	66.0 - 79.0	77.0 - 90.0	2.50/3.15	106.0	117.6	37.0

All dimensions are in mm. \*Not included in BS 6121

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. BW20SLSF PACK

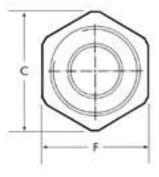
### **Cable Glands**

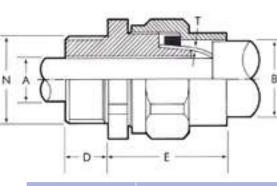
#### **BWL Premier Range Brass Cable Gland Pack**

#### **3 PART INDOOR**

**Application**: Brass indoor gland suitable for all types of steel wire armoured cable (SWA), providing mechanical cable retention and electrical continuity via armour wire termination and additional armour locking ring.

Operating temp: -80°C to +300°C Ingress protection: IP2X EN60529 Approval: BS 6121 Part 1:2005





		Entry T	hread	Ca	ble Acceptand	Hexagonal Details		Assembled Length	
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
BWL20S* PACK	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	26.0
BWL20* PACK	2	20	10	11.0 - 13.8	15.5 - 20.8	0.90/1.25	30.0	33.3	28.0
BWL25* PACK	2	25	10	13.0 - 19.8	20.3 - 27.5	1.25/1.60	36.0	42.2	30.0
BWL32* PACK	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	33.0
BWL40* PACK	1	40	15	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	35.0
BWL50* PACK	1	50	15	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	37.0
BWL63* PACK	1	63	15	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	43.0
BWL75* PACK	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	48.0
BWL Long Thread V	ersions								
BWL20SLT* PACK	2	20	12	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	26.0
BWL20LT* PACK	2	20	12	11.0 - 13.8	15.5 - 20.8	0.90/1.25	30.0	33.3	28.0
BWL25SLT* PACK	2	25	12.5	11.6 - 18.4	17.8 - 25.0	1.25/1.60	32.0	35.5	30.0
BWL25LT* PACK	2	25	12.5	13.0 - 19.8	20.3 - 27.5	1.25/1.60	36.0	42.2	30.0
BWL32LT* PACK	2	32	12.5	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	33.0
BWL40LT* PACK	1	40	17	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	35.0
BWL50LT* PACK	1	50	17	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	37.0
BWL63LT* PACK	1	63	17	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	43.0
BWL75LT* PACK	1	75	22	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	48.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. BWL20SLSF PACK

# **ALT Cable Glands**

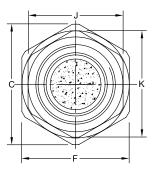
#### **ALT CW Range**

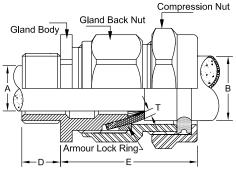
#### **4 PART OUTDOOR**

Application: Brass indoor and outdoor 4 part cable gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on the outer cable sheath. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

**Operating temp:** -20°C to +80°C Ingress protection: IP66 EN60529







		Entry T	hread	Cable A	Acceptance D	etails		Hexagon	al Details		Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Diameter A max	Diameter B min max	Armour wire size T	Body & I A/F J	Back Nut A/C K	Compres A/F F	sion Nut A/C C	E
CW20S* PACK-ALT	2	20 x 1.5	10	11.8	12.8 - 15.5	0.90	22.0	24.4	24.0	26.6	38.0
CW20* PACK-ALT	2	20 x 1.5	10	13.6	15.5 - 19.5	0.90	25.0	27.7	27.0	30.0	39.0
CW25* PACK-ALT	2	25 x 1.5	10	20.0	22.0 - 26.5	1.25	33.0	36.6	35.0	38.8	44.0
CW32* PACK-ALT	2	32 x 1.5	10	26.5	26.0 - 33.5	1.60	41.0	45.5	43.0	47.7	48.0
CW40* PACK-ALT	1	40 x 1.5	15	32.1	33.0 - 39.5	1.60	48.0	53.3	51.0	56.6	52.0
CW50* PACK-ALT	1	50 x 1.5	15	42.4	45.0 - 52.0	2.00	60.0	66.6	63.0	70.0	55.0
CW63* PACK-ALT	1	63 x 1.5	15	55.2	59.0 - 66.0	2.50	75.0	83.3	79.0	87.7	60.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. CW20SLSF PACK-ALT



See page 60 for more



### **Cable Glands**

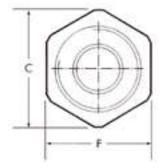
#### **PEX®CW Brass Cable Gland Pack**

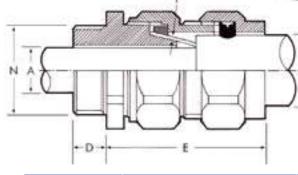
#### **4 PART OUTDOOR**

**Application**: Brass indoor and outdoor 4 part cable gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on the outer cable sheath. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

Operating temp: -20°C to +80°C Ingress protection: IP66 EN60529 Approval: BS EN 62444:2013







		Entry T	hread	Cable A	cceptance D	etails		Hexagon	al Details		Assembled Length
	Pack	Diameter	Length	Diameter	Diameter	Armour	Body & I	Back Nut	Compres	sion Nut	
Part No.	Quantity	N	D	A max	B min max	wire size T	A/F F	A/C C	A/F J	A/C K	E
PCW20S* PACK	2	20	10	11.8	12.9 - 15.8	0.90/1.25	23.0	25.6	24.0	26.7	38.0
PCW20* PACK	2	20	10	13.8	15.5 - 20.5	0.90/1.25	26.0	28.9	28.0	31.1	39.0
PCW25* PACK	2	25	10	19.8	20.3 - 27.0	1.25/1.60	34.0	37.7	35.5	39.5	45.0
PCW32* PACK	2	32	10	26.4	26.7 - 33.5	1.60/2.00	42.0	46.8	46.0	51.2	48.0
PCW40* PACK	1	40	15	32.4	33.0 - 40.1	1.60/2.00	50.0	55.7	55.0	61.0	53.0
PCW50S* PACK	1	50	15	38.0	39.8 - 46.3	2.00/2.50	62.0	69.1	65.0	72.4	59.0
PCW50* PACK	1	50	15	44.0	46.0 - 52.6	2.00/2.50	62.0	69.1	65.0	72.1	59.0
PCW63S* PACK	1	63	15	49.0	52.3 - 61.5	2.50	76.0	84.7	80.0	89.2	66.0
PCW63* PACK	1	63	15	55.5	58.4 - 65.3	2.50	76.0	84.7	80.0	88.8	66.0
PCW75S* PACK	1	75	20	62.0	64.8 - 73.0	2.50	85.0	94.5	90.0	100.0	68.0
PCW75* PACK	1	75	20	67.0	71.0 - 78.0	2.50	90.0	100.0	95.0	105.5	68.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. PCW20SLSF PACK

See page 60 for more information on Earthing Nuts™





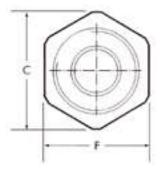
# **Cable Glands**

#### **CW Premier Brass Cable Gland Pack**

#### **4 PART OUTDOOR**

**Application**: Brass indoor and outdoor gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on the outer cable sheath. The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

Operating temp: -20°C to +80°C Ingress protection: IP66 EN60529 Approval: BS EN 62444:2013



		Entry T	hread	Ca	ble Acceptand	e Details	Hexagon	al Details	Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
CW20/16* PACK	2	20	10	9.0	8.4 - 13.8	0.90	22.0	24.4	38.0
CW20S* PACK	2	20	10	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	40.0
CW20* PACK	2	20	10	11.0 - 13.8	15.5 - 20.8	0.90/1.25	30.0	33.3	41.0
CW25* PACK	2	25	10	13.0 - 19.8	20.3 - 27.5	1.25/1.60	38.0	42.2	44.0
CW32* PACK	2	32	10	19.0 - 26.4	26.7 - 33.5	1.60/2 .00	46.0	51.0	48.0
CW40* PACK	1	40	15	25.0 - 32.4	33.0 - 40 .9	1.60/2.00	55.0	61.0	52.0
CW50S* PACK	1	50	15	31.5 - 38.0	39.4 - 46.3	2.00/2.50	60.0	66.6	55.0
CW50* PACK	1	50	15	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	55.0
CW63S* PACK	1	63	15	42.5 - 49.0	52.1 - 61.5	2.50	75.0	83.2	60.0
CW63* PACK	1	63	15	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	60.0
CW75S* PACK	1	75	20	54.5 - 62.0	64.8 - 73.0	2.50	90.0	100.0	65.0
CW75* PACK	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	65.0
CW90* PACK	1	*90	20	66.0 - 79.0	77.0 - 90.0	2.50/3.15	110.0	122.1	70.0

All dimensions are in mm. \*Not included in BS EN 62444:2013

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. CW20/16LSF PACK



### **Cable Glands**

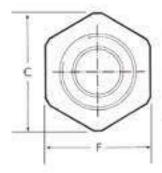
#### E1W Premier Range Brass Cable Gland Pack

**Application**: Brass indoor and outdoor gland suitable for all types of steel wire armoured cable (SWA), providing an environmental seal on both the cable inner and outer sheaths.

The gland also provides mechanical cable retention and electrical continuity via armour wire termination.

Operating temp: -20°C to +80°C Approval: BS EN 62444:2013

Ingress protection: IP66 EN60529



*	
N 18	
	- D + - E

		Entry T	hread	Ca	ble Acceptanc	e Details	Hexagon	al Details	Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Diameter A min max	Diameter B min max	Armour wire size T	A/F F	A/C C	E
E1W20/16* PACK	2	20	15	3.5 - 9.0	8.4 - 13.8	0.90	22.0	24.4	40.0
E1W20S* PACK	2	20	15	8.0 - 11.8	12.9 - 15.8	0.90/1.25	24.0	26.6	42.0
E1W20* PACK	2	20	15	11.0 - 13.8	15.5 - 20.0	0.90/1.25	30.0	33.3	43.0
E1W25* PACK	2	25	15	13.0 - 19.8	20.3 - 27.5	1.25/1.60	38.0	42.2	46.0
E1W32* PACK	2	32	15	19.0 - 26.4	26.7 - 33.5	1.60/2.00	46.0	51.0	50.0
E1W40* PACK	1	40	20	25.0 - 32.4	33.0 - 40.9	1.60/2.00	55.0	61.0	54.5
E1W50S* PACK	1	50	20	31.5 - 38.0	39.4 - 46.3	2.00/2.50	60.0	66.6	57.5
E1W50* PACK	1	50	20	36.5 - 44.0	45.7 - 52.6	2.00/2.50	65.0	72.1	57.5
E1W63S* PACK	1	63	20	42.5 - 49.0	52.1 - 61.5	2.50	75.0	83.2	63.0
E1W63* PACK	1	63	20	48.5 - 55.5	58.4 - 65.3	2.50	80.0	88.8	63.0
E1W75S* PACK	1	75	20	54.5 - 62.0	64.8 - 73.0	2.50	90.0	100.0	68.0
E1W75* PACK	1	75	20	60.5 - 67.0	71.0 - 78.0	2.50	95.0	105.4	68.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s), earth tag(s) and shroud(s).

Packs are also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version,

i.e. E1W20/16LSF PACK

See page 60 for more information on Earthing Nuts™





### **Hazardous Area Cable Glands**

#### E1FW-RC Premier Range (Reversible Cone)

#### **HAZARDOUS AREAS**

**Application**: Dual certified flameproof Ex d and Increased Safety Ex e indoor and outdoor cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 hazardous areas with all types of circular armoured cable, braided SY cables and steel tape armoured cables providing a flameproof seal on the cable outer sheath.

Gland features reversible cone to suit all applications.

Gland must be used as part of a certified assembly in surface installations only. Gland may not be used on a group IIC Ex d Enclosure that is larger than 2000cc volume.



**Certification**: Group II, Category-2 (zone 1) gas group IIC confirm to EBN 60079-0:2009 & EN 60079-1:2007.

Electrical Apparatus for use in dust Zone 21 & 22 as per EN 60079-31:2009.

**Degree of protection**: IP67 as per EN 60529:1991

#### Material:

Material of construction of cable gland is BRASS/SS304/SS316/MS

**Brass**: BS 2874 CZ121 / IS 319 gr.1 / SS: ASTM A314 gr. 304/304

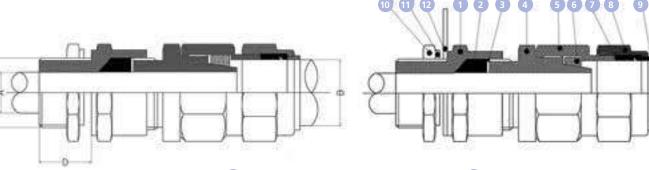
**Threads**: Isometric (ISO) IS0:965 - 1 & 965 - 3, BS:3643

**Operating temp**: The cable sealing washer (elastomeric sealing ring) used and is suitable for operating temperature -20°C to +100°C

**Note**: The cable glands are suitable for SWA (Steel Wire Armoured), steel tape armoured and braid wire cable.

'W' refer to the wire diameter in a steel tape armoured cable.

'XYZ'- refer to the wire diameter In a steel tape armoured cable or braid wire cable.



<ol> <li>Gland Body</li> </ol>	Brass	5 Body	Brass	9 Protection Tube	Nylon
2 Inner Sealing	NBR	6 Armoured Ring	Brass	10 Lock Nut	Brass
3 Inner Washer	Brass	7 Outer Sealing	NBR	11 Thread Seals	Nylon
4 Ring Body	Brass	8 Cable Nut	Brass	12 Earth Tag	Brass

		Entry Thread Thread Length D Cable Dimensions Arr		Armour Acce	Armour Acceptance Range			
Part No.	Pack Quantity	Metric (ISO)	Metric (ISO)	ET	Diameter A min max	Diameter B min max	w	XYZ
E1FW20S PACK-RC	2	M20	15	16.5	6.1 - 11.6	9.5 - 15.9	0.90/1.25	0.15/0.35
E1FW20 PACK-RC	2	M20	15	16.5	6.5 - 13.9	12.5 - 20.9	0.90/1.25	0.15/0.50
E1FW25 PACK-RC	2	M25	15	16.5	11.1 - 19.9	17.0 - 26.2	1.25/1.60	0.15/0.50
E1FW32 PACK-RC	2	M32	15	16.5	17.0 - 26.2	22.9 - 33.9	1.60/2.00	0.15/0.55
E1FW40 PACK-RC	1	M40	15	16.5	22.0 - 32.1	26.0 - 40.1	1.60/2.00	0.2/0.6
E1FW50 PACK-RC	1	M50	20	20	35.6 - 44.0	38.0 - 53.1	2.00/2.50	0.3/0.8
E1FW63 PACK-RC	1	M63	20	20	47.2 - 55.9	54.6 - 65.7	2.50	0.3/0.8
E1FW75 PACK-RC	1	M75	20	20	59.1 - 67.9	60.9 - 78.5	2.50	0.3/1.0

All dimensions are in mm.

Pack content: Gland(s), brass locknut(s), earth tag(s), and shroud(s).



### **Cable Glands**

#### **GXD Range Brass Cable Gland Pack**

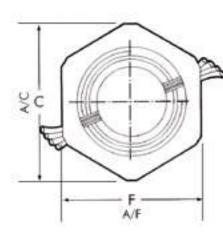
#### FOR BRAIDED TYPE CABLE

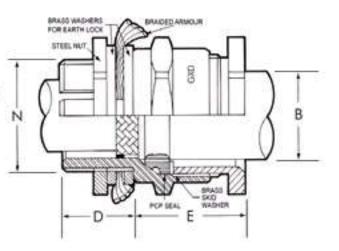
**Application**: Brass indoor and outdoor gland suitable for all types of flexible wire braided cable such as CY and SY. The gland provides an environmental seal on the cable outer sheath and internal mechanical retention of wire braid for electrical continuity.

Gland complete with steel locknuts and brass washers.

#### Operating temp: -20°C to +80°C Ingress protection: IP66 EN60529 Approval: BS EN 62444:2013







		Entry 1	「hread	Cable Accept	tance Details	Hexagona	al Details	Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Minimum B	Maximum B	A/F F	A/C C	E
GXD20S* PACK	2	20	15	7.0	11.6	24.0	26.9	18.0
GXD20* PACK	2	20	15	10.5	13.6	27.0	30.0	20.0
GXD25* PACK	2	25	15	12.5	19.8	36.0	40.3	26.0
GXD32* PACK	2	32	15	18.5	26.3	41.0	45.6	26.0
GXD40* PACK	1	40	15	25.0	32.1	50.0	55.8	27.0
GXD50S* PACK	1	50	15	30.5	38.1	55.0	61.5	27.0
GXD50* PACK	1	50	15	36.5	44.0	60.0	67.0	27.0

All dimensions are in mm.

Pack content: Gland(s), locknut(s), shroud(s) and brass washer(s).

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. GXD20SLSF PACK

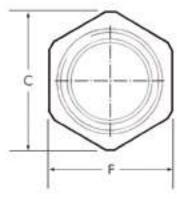


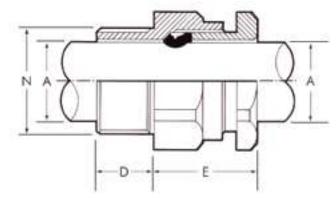
# **Cable Glands**

#### **A2 Brass Cable Gland Pack**

gland suitable for all types of unarmoured cable, providing a seal on the outer sheath. Operating temp: -20°C to +80°C Ingress protection: IP66 EN60529 Approval: BS EN 62444:2013

Application: Brass indoor and outdoor industrial





		Entry 1	hread	Cable Accept	tance Details	Hexagona	al Details	Assembled Length
Part No.	Pack Quantity	Diameter N	Length D	Minimum A	Maximum A	A/F F	A/C C	E
A2/2016* PACK	2	20	12	3.5	9.0	17.0	18.8	17.0
A2/20S* PACK	2	20	12	8.0	11.8	19.0	21.0	18.0
A2/20* PACK	2	20	12	11.0	13.8	21.0	23.3	18.0
A2/25* PACK	2	25	12	13.0	19.8	27.0	30.0	20.0
A2/32* PACK	2	32	12	19.0	26.4	35.0	38.8	24.0
A2/40* PACK	1	40	15	25.0	32.4	42.0	46.6	27.0
A2/50S* PACK	1	50	15	31.5	38.0	50.0	55.5	28.0
A2/50* PACK	1	50	15	37.0	43.5	55.0	61.0	28.0
A2/63S* PACK	1	63	15	42.5	49.0	63.0	70.0	30.0
A2/63* PACK	1	63	15	48.5	55.5	70.0	77.7	30.0
A2/75S* PACK	1	75	15	54.5	62.0	75.0	83.2	32.0
A2/75* PACK	1	75	15	60.5	67.0	80.0	88.8	32.0
A2/90* PACK*	1	90	15	70.0	79.0	95.0	105.4	34.0

All dimensions are in mm. \*Not included in BS EN 62444:2013

Pack content: Gland(s), steel locknut(s) and shroud(s).

Packs also available with Low-smoke LSF shroud.

\*Add LSF to the Part No. for Low Smoke & Fume version, i.e. A2/2016LSF PACK





### **Hazardous Area Cable Glands**

#### A2F Range Brass Cable Gland Pack

#### **HAZARDOUS AREAS**

**Application**: Dual certified flameproof Ex d and Increased Safety Ex e indoor and outdoor cable gland for use of in Zone 1, Zone 2, Zone 21 and Zone 22 hazardous areas with all types of circular unarmoured cable, providing a flameproof seal on the cable outer sheath.

Gland must be used as part of a certified assembly in surface installations only. Gland may not be used on a group IIC Ex d Enclosure that is larger than 2000cc volume.

Certification: ITS11 ATEX 17453X (For Ex d & Ex e)

Ingress protection: IP67

C

Operating temp: -20°C to +100°C

Degree of protection: IEC 60529

Electrical Apparatus Use in Dust Zone 21 & 22: EN 60079-31:2009



#### Code of protection category:

II 2 GD, Ex d IIC Gb / Ex e IIC Gb -20°C to +100°C, Ex tb IIIC -20°C to +100°C Db IP67, Equipment Zone 1, Zone 2, Zone 21 and Zone 22. Gas Groups IIA, IIB, IIC

#### Compliance standards:

EN 60079-0:2009, IEC 60079-0:2011, EN 60079-1:2007 & EN 60079-7:2007

**Cable type:** Unarmoured, SWA Extruded Bending Cable

Sealing area(s): Outer Sheath

Sealing material:

Polyamide / PTFE

	Entry T	hreads	Cable Accepta	nce Diameter		Hexago	n Details		Assembled Length	
	Diameter	Length	Rubber Ring	Rubber Ring	Во	dy	Compres	sion Nut	Comp.	Un-comp.
Part No.		D	Small min max	Large min max	A/F F	A/C C	A/F F	A/C C		E
A2F20/16 PACK	M20x1.5	16.5	3.5 - 6.0	5.9 - 8.5	20.0	22.2	22.0	24.4	22.0	26.0
A2F20S PACK	M20x1.5	16.5	8.0 - 9.75	9.65 - 11.5	22.0	24.4	24.0	26.7	25.0	29.5
A2F20 PACK	M20x1.5	16.5	11.0 - 12.25	12.15 - 13.5	26.0	28.9	27.0	30.0	28.0	33.0
A2F25 PACK	M25x1.5	16.5	13.0 - 16.25	16.15 - 19.5	32.0	35.5	34.0	37.8	34.0	40.8
A2F32 PACK	M32x1.5	16.5	19.0 - 22.25	22.15 - 25.5	41.0	45.5	43.0	47.8	34.0	41.5
A2F40 PACK	M40x1.5	22.0	25.0 - 28.50	28.40 - 32.0	48.0	53.3	50.0	55.5	36.0	45.0
A2F50S PACK	M50x1.5	22.0	31.5 - 34.25	34.15 - 37.0	55.0	61.1	57.0	63.3	36.0	45.0
A2F50 PACK	M50x1.5	22.0	36.5 - 39.75	39.15 - 43.0	62.0	68.9	65.0	72.2	36.0	45.0
A2F63S PACK	M63x1.5	22.0	42.5 - 46.25	46.15 - 50.0	70.0	77.7	75.0	83.3	38.0	48.0
A2F63 PACK	M63x1.5	22.0	48.5 - 51.75	51.65 - 55.0	75.0	83.2	80.0	88.8	38.0	48.0

All dimensions are in mm.

Pack content: Gland(s), steel locknut(s) and shroud(s).



# 

# **Cable Glands Accessories**

#### **Entry Thread Washers**

To maintain the IP rating of the equipment and gland it may be necessary to fit an entry thread washer at the gland interface.

Par	t No.	To Fit Thread Size	
Nylon	Fibre	IO FIL IIITEAU SIZE	
M16NW	M16FW	M16	
M20NW	M20FW	M20	Fibre
<b>M25NW</b>	M25FW	M25	
M32NW	M32FW	M32	and the second second
M40NW	M40FW	M40	
M50NW	M50FW	M50	
M63NW	M63FW	M63	and the second second
M75NW	M75FW	M75	Nylon

#### Serrated 'Shakeproof' Washers

Internal serrated washers, manufactured from mild steel, are used on cable gland entry threads to dampen the vibrations of the cable gland or equipment assembly which may loosen the cable gland or locknut.

Manufactured to suit thread specification Isometric (ISO) to BS3643:1981

Zinc plated and stainless steel available to order.

Part No.	To Fit Thread Size
M20SW	M20
M25SW	M25
M32SW	M32
M40SW	M40
M50SW	M50
M63SW	M63

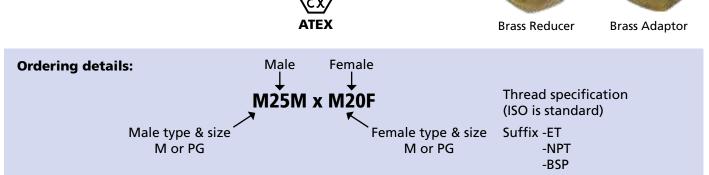


#### **Brass Reducers and Adaptors**

SWA brass adaptors and reducers provide an effective method of connection between dissimilar threads or sizes.

Reducers reduce the thread entry diameter of an enclosure to accept a gland or fitting with a smaller or alternative thread. It should be noted that no more than one adaptor or reducer should be used at any one time.

#### Increased safety as standard



Material: Brass BS 2874 :1985 CZ121

**Thread specification**: Isometric (ISO), PG , Imperial (ET), National Pipe Thread (NPT), British Standard Pipe (BSP)

ISO Metric Thread World-wide most commonly used type thread characterised by its major diameter and its pitch.

Designated by the letter M followed by the value of the nominal diameter and the pitch, both expressed in millimetres and separated by the multiplication sign 'x' NPT Thread = National Pipe Thread Taper rate for all NPT threads is 1/16

The taper on NPT threads allows them to form a seal when torqued as the flanks of the threads compress against each other, as opposed to straight thread fittings

PG Thread = Panzer-Gewinde (also Panzer-Rohr-Gewinde) German thread type

Depth of thread smaller than NPT or Metric, but larger flank angle



### Hazardous Area Cable Gland Accessories $\langle Ex \rangle$

#### **Hexagonal Plugs**

Material: Body PA 6 (Polyamide 6) O-ring CR ( Chloroprene ), Silicone Ingress Protection Rating: IP 68 - 5 Bar, 30 min IP 66 Operating Temperature: O-ring Material CR (Chloroprene) Silicone Ex eb/tb / Ex tb -40°C to +80°C -60°C to +80°C

 $\begin{array}{rcl} \text{Ex eb/tb / Ex tb -40°C to +80°C} & -60°C to +80°C \\ \text{Ex i -40°C to +70°C} & -60°C to +70°C \\ \end{array}$ 

D

#### Equipment for:

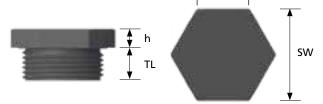
- Gas & Dust potentially explosive atmospheres.
- Cable glands should be also used for intrinsically safe circuits Ex-i.

#### Suitable for use in:

Group II – Gas Group IIC – ZONE1/ZONE2 Group III – Dust Group IIIC – ZONE21/ZONE 22

#### **Equipment Marking**:

Ex II 2GD Ex eb IIC Gb / Ex tb IIIC Db





Approvals:

Certificate number IMQ 13 ATEX 010X  $\langle E_X \rangle$ 

IECEx IMQ 13.0003X

Standard EN 60079-0:2012 + A11:2013 EN 60079-7:2015 EN 60079-31:2014

IEC 60079-0:2011 Edition:6 IEC 60079-31:2013 Edition:2 IEC 60079-7:2006 Edition: 4

Part No.	Outer Thread Size (Male)	Outer Thread Length TL	Spanner Width SW	Outer Ø D	Height h
SP-M20HN-EEXE	M20x1.5	11.0	23	26.0	6.0
SP-M25HN-EEXE	M25x1.5	10.0	28	32.0	5.8
SP-M32HN-EEXE	M32x1.5	15.0	36	41.5	7.8

All dimensions are in mm.

#### **Nylon Stopping Plugs**

EX Metric nylon (PBT) EExe II certified stopping plugs. **Material**: PBT (Polybutylene Terephalate) **IP ratings**: IP66/68 (with sealing washer) **Standards**: ATEX Category 2, Category 3, II 2GD EExe e 11 Zones 1, 2, 21 & 22 EEx e IIC. DIP A21

Part No.	Size	Allen Key	Hex. head A/F mm
SP-M20AN-EEXE	M20	10	23
SP-M25AN-EEXE	M25	10	28



To keep up to date with **new products** and **special offers** go online at

www.swaonline.co.uk



# **Cable Glands Accessories**

#### **Brass Stopping Plugs**

#### Material: Brass BS 2874:1985 CZ121

This material is classified as a component and is therefore not given a temperature rating.

The SWA range of stopping plugs are designed to close any unused entries in electrical equipment without revoking existing certification.

Design standard: EN 60079-0:2012 + A11:2013 EN 60079-1:2014, EN 60079-31:2014

**EX Certification**: II 2 GD Ex db IIC Gb / Ex e IIC Gb Ex tb IIIC Db IP67

Certificate: TI 17ATEX 826 X – Ex Notified Body No. 1354

#### The range covers two design types:





#### Allen Key Type

Inserted with the Allen Key pointing away from the box and tightened from the outside. Hexagonal Head Type Hexagon headed plugs are inserted from the outside and fastened by means of a spanner.

Part	No.	Thread	Allen	Hex. head	
Allen key	Hexagon head	Inreau	Кеу	A/F mm	
SP-M16A	SP-M16H	M16	6	19.0	
SP-M20A	SP-M20H	M20	10	23.3	
SP-M25A	SP-M25H	M25	10	28.0	
SP-M32A	SP-M32H	M32	10	37.5	
SP-M40A	SP-M40H	M40	10	47.0	
SP-M50A	SP-M50H	M50	10	56.0	
SP-M63A	SP-M63H	M63	10	70.0	
SP-M75A	SP-M75H	M75	10	80.0	

EExe and EExd as standard

Nylon stopping plugs now also available.

Plugs should be inserted directly into the unused entry and not into a thread reducer or thread adaptor.

Shrouds available, ask for details.

#### **EarthingNut**<sup>™</sup>

See page 60 for innovative Earthing Nut™ range



Electrical Industry Awards Winner INNOVATIVE POWER PRODUCT OF THE YEAR



#### **Brass Earth Tags**

Manufactured in brass. Also available in aluminium and copper.

Part No.	Size (mm)	Screw Hole Size
ET20	20	7.8
ET25	25	7.8
ET32	32	7.8
ET40	40	7.8
ET50	50	7.8
ET63	63	12.6
ET75	75	12.6

#### **Lock Nuts**

Part	t No.	To Suit Thread
Steel	Brass	Size (mm) 1.5mm Pitch
SLN20	BLN20	20
SLN25	BLN25	25
SLN32	BLN32	32
SLN40	BLN40	40
SLN50	BLN50	50
SLN63	BLN63	63
SLN75	BLN75	75



Brass



To see a video showing a demonstration, scan this QR code



84 CALL **01453 844 333** OR EMAIL **sales@swaonline.co.uk** 



### **Cable Gland Sizing Charts**

#### XLPE / PVC / SWA – BS 4567 Cable Glands

Due to cable diameter variances between manufacturers, we strongly advise the cable diameter is checked prior to purchasing the products.

			Cable Gland Part Number								
Conductor Size (mm²)	No. of Cores	Approx. Overall Dia. (mm)	ALT – BW & TAURAS	TPBW & PBW	www.	ALT – CW & TAURAS	TPCW & PCW	CW	STORM	E1W	E1FW-RC
	2	12.3	200	205	200	N/A	200	20/46	200	20/10	205
	3	12.8	205	205	205	205	205	20/16	205	20/16	205
1.5	4	14.0									
1.5	5	14.2	205	205	205	205	205	205	205	205	205
	6	15.2					205	205	203	205	205
	7	15.6	20	205	205	20					
	2	13.6									
	3	13.6	205	205	205	205	205	205	205	205	205
2.5	4	14.7									
210	5	16.3									
	6	17.1	20	20	20	20	20	20	20	20	20
	7	17.6									
	2	14.7	205	20	205	205	205	205	205	205	20
4	3	15.3									
	4	16.4	20	20	20	20	20	20	20	20	20
	5	18.9	25								
	2	15.9	20	20	20	20	20	20	205	20	205
6	3	16.6	20	20	20	20	20	20	20	20	20
	4	18.7	25	20	20	20	20	20	20	20	20
	5	20.5	25	25	25	25	25	20	20	25	25
	2	18.0	20	25	20	20	20	20	20	20	20
10	3	18.9	25								
	4	20.3	25	25	25	25	20	20	20	25	20
	5	22.0	25	25	25	25	25	25	25	25	25
	2	20.0	25	25	25	25	25	25	25	20	20
16	3	21.2	25	25	25	25	25	25	25	25	25
	4	22.9									
	5	28.1	32	32	32	32	32	32	32	32	32
	2	24.1	25	25	25	25	25	25	25	25	25
25	3	26.7	32	25	32	32	32	32	25	25	32
	4	28.9	32	32	32	32	32	32	32	32	32
	5	30.1									



# **Cable Gland Sizing Charts**

#### XLPE / PVC / SWA - BS 4567 Cable Glands

Due to cable diameter variances between manufacturers, we strongly advise the cable diameter is checked prior to purchasing the products.

			Cable Gland Part Number								
Conductor Size (mm²)	No. of Cores	Approx. Overall Dia. (mm)	ALT – BW & TAURAS	TPBW & PBW	W BW	ALT – CW & TAURAS	TPCW & PCW	CW CW	STORM	E1W	E1FW-RC
	2	27.9									
25	3	29.9	32	32	32	32	32	32	32	32	32
35	4	32.1									
	5	35.0	40	40	40	40	40	40	32	40	N/A
	2	25.8	32	25	25	25	25	25	25	25	32
50	3	28.5	32	32	32	32	32	32	32	32	32
50	4	32.0	52	52	52	52		52	52	52	JZ
	5	40.0	50S	40	40	<b>50S</b>	40	<b>50S</b>	N/A	<b>50S</b>	N/A
	2	29.0	32	32	32	32	32	32	32	32	32
70	3	32.2	JL	52	JL	JL	JL	JL	52	JL	
	4	37.7	40	40	40	40	40	40	N/A	40	N/A
	5	43.3	<b>50S</b>	50S	50S	50S	505	<b>50S</b>	N/A	50S	N/A
	2	33.1	40	32	32	32	32	32	32	32	32
95	3	37.0	40	40	40	40	40	40	N/A	40	N/A
	4	41.7	505	N/A	50S	50S	N/A	50S	N/A	50S	N/A
	5	52.0	50	50	50	50	50	50	N/A	50	N/A
	2	36.1	40	40	40	40	40	40	N/A	40	N/A
120	3	40.4	50S	N/A	40	50S	N/A	40	N/A	50S	N/A
	4	47.1	50	50	50	50	50	50	N/A	50	N/A
	2	39.3	<b>50S</b>	40	40	40	40	40	N/A	40	N/A
150	3	45.5	50	50	50	50	50	50	N/A	<b>50S</b>	N/A
	4	51.4	50	50	50	50	50	50	N/A	50	N/A
	2	44.7	<b>50S</b>	50	50S	50S	50	<b>50S</b>	N/A	50S	N/A
185	3	49.8	50S	50	50	50	50	50	N/A	50	N/A
	4	56.6	63S	63	63S	635	63S	63S	N/A	63S	N/A
	2	49.0	50	50	50	50	50	50	N/A	50	N/A
240	3	55.1	63S	63	63S	635	63S	63S	N/A	63S	N/A
	4	63.0	63	63	63	63	63	63	N/A	63	N/A
	2	53.5	635	63S	63S	635	635	63S	N/A	63S	N/A
300	3	60.2	63	63	63	63	63	63	N/A	63	N/A
	4	68.8	75	75S	755	75S	63S	755	N/A	<b>75S</b>	N/A
	2	59.0	63	63	63S	63	N/A	63S	N/A	63	N/A
400	3	66.6	75	75S	<b>75S</b>	75S	N/A	<b>75S</b>	N/A	<b>75S</b>	N/A
	4	78.1	N/A	N/A	90	N/A	N/A	90	N/A	75	N/A

86 CALL **01453 844 333** OR EMAIL **sales@swaonline.co.uk** 



# **Cable Gland Sizing Charts**

E1FW-RC Gland Part Number

**E1FW20S** 

PACK-RC **E1FW20S** 

PACK-RC E1FW20S

PACK-RC **E1FW20S** 

PACK-RC **E1FW20S** 

PACK-RC E1FW20

PACK-RC E1FW20

PACK-RC **E1FW20S** 

PACK-RC **E1FW20S** 

PACK-RC E1FW20S

PACK-RC **E1FW20S** 

PACK-RC **E1FW20S**  STORM GLAND

Storm Gland Part Number

**20S** 

N/A

**20S** 

**20S** 

**20S** 

20

20

**20S** 

**20S** 

**20S** 

**20S** 

**20S** 

### **SY PVC Signal and Control Cables**

					2000	Y	A MARTIN	
Size mm <sup>2</sup>	Nom.	GXD Gland	E1FW-RC	Storm Gland			MAN E	Case -
& No. of Cores	Dia. mm	Part Number	Gland Part Number	Part Number	GXD		E1FW20 PACK	RC
0.5 X 2	7.1	GXD20S PACK	N/A	N/A	Size mm <sup>2</sup>	Nom.	GXD Gland	E
0.5 X 3	7.6	GXD20S PACK	N/A	N/A	& No. of	Dia.	Part Number	
0.5 X 4	8.0	GXD20S PACK	N/A	N/A	Cores	mm	rurt Number	Par
0.5 X 5	8.5	GXD20S PACK	N/A	N/A	2.5 X 2	9.8	GXD20S PACK	E1 PA
0.5 X 7	9.3	GXD20S PACK	E1FW20S PACK-RC	N/A	2.5 X 3	10.1	GXD20S PACK	E1 PA
0.5 X 12	11.5	GXD20 PACK	E1FW20S PACK-RC	205	2.5 X 4	10.9	GXD20S PACK	E1 PA
0.5 X 18	13.4	GXD20 PACK	E1FW20S PACK-RC	205	2.5 X 5	11.8	GXD20 PACK	E1
0.5 X 25	15.8	GXD25 PACK	E1FW20S PACK-RC	205	2.5 X 7	13	GXD20 PACK	PA E1
0.75 X 2	7.6	GXD20S PACK	N/A	N/A				PA
0.75 X 3	7.8	GXD205 PACK	N/A	N/A	2.5 X 12	17.3	GXD25 PACK	E1 PA
0.75 X 4	8.3	GXD205 PACK	N/A	N/A				E1
0.75 X 5	8.9	GXD205 PACK	N/A	N/A	2.5 X 18	19.8	GXD32 PACK	PA
0.75 X 7	9.7	GXD205 PACK	E1FW20S PACK-RC	N/A	4.0 X 3	11.7	GXD20 PACK	E1 PA
0.75 x 12	12.2	GXD20 PACK	E1FW20S PACK-RC	205	4.0 X 4	12.6	GXD20 PACK	E1 PA
0.75 x 18	13.6	GXD25 PACK	E1FW20S PACK-RC	205	4.0 X 5	13.9	GXD25 PACK	E1 PA
0.75 X 25	16.7	GXD25 PACK	E1FW20 PACK-RC	20	4.0 X 7	15.7	GXD25 PACK	E1 PA
1.0 X 2	8.2	GXD20S PACK	N/A	N/A				
1.0 X 2	8.4	GXD205 PACK	N/A	N/A	6.0 X 3	14.1	GXD25 PACK	E1 PA
1.0 X 4	8.8	GXD205 PACK	N/A	N/A				E1
1.0 X 5	9.3	GXD205 PACK	N/A	N/A	6.0 X 4	14.8	GXD25 PACK	PA
1.0 X 7	9.9	GXD20S PACK	E1FW20S PACK-RC	N/A	6.0 X 5	16.9	GXD25 PACK	E1 PA
1.0 X 12	12.5	GXD20 PACK	E1FW20S PACK-RC	205	6.0 X 7	18.4	GXD25 PACK	E1 PA
1.0 X 18	14.5	GXD25 PACK	E1FW20S PACK-RC	205	10 X 4	18.2	GXD25 PACK	E1 PA
1.0 X 25	17.9	GXD25 PACK	E1FW20 PACK-RC	20	10 X 5	19.8	GXD32 PACK	E1 PA
1.5 X 2	8.5	GXD20S PACK	N/A	N/A				E1
1.5 X 3	8.7	GXD20S PACK	N/A	N/A	10 X 7	22.2	GXD32 PACK	PA
1.5 X 4	9.3	GXD20S PACK	E1FW20S PACK-RC	N/A	16 X 4	21.8	GXD32 PACK	E1 PA
1.5 X 5	9.9	GXD20S PACK	E1FW20S PACK-RC	N/A	16 X 5	23.5	GXD32 PACK	E1 PA
1.5 X 7	12.4	GXD20 PACK	E1FW20S PACK-RC	205	25 X 4	25.3	GXD32 PACK	E1 PA
1.5 X 12	13.7	GXD25 PACK	E1FW20S PACK-RC	205	25 X 5	28.9	GXD40 PACK	E1 PA
1.5 X 18	16.8	GXD25 PACK	E1FW20 PACK-RC	20	35 X 4	29.7	GXD40 PACK	E1
1.5 X 25	19.8	GXD32 PACK	E1FW20 PACK-RC	20	50 X 4	34.9	GXD50S PACK	PA

PACK-RC **E1FW20S 20S** Κ PACK-RC E1FW20 Κ 20 PACK-RC E1FW20 Κ 20 PACK-RC E1FW20 Κ 20 PACK-RC E1FW20 Κ 20 PACK-RC E1FW25 Κ 25 PACK-RC E1FW25 Κ 25 PACK-RC E1FW25 Κ 25 PACK-RC E1FW25 Κ 25 PACK-RC E1FW32 Κ 32 PACK-RC E1FW32 Κ 32 PACK-RC СК N/A 32 Due to cable diameter variances between manufacturers, we strongly advise the cable diameter is checked prior to purchasing the products. See page 79 for product details.



# **Cable Gland Sizing Charts**

### **CY PVC Signal and Control Cables**

Size mm <sup>2</sup>	Nom.	GXD Gland	E1FW-RC	Storm Gland
& No. of	Dia.	Part Number	Gland	Part Number
Cores	mm		Part Number	
0.5 X 3	7.4	GXD20S PACK	N/A	N/A
0.5 X 4	7.9	GXD20S PACK	N/A	N/A
0.5 X 5	8.6	GXD20S PACK	N/A	N/A
0.5 X 7	9.2	GXD20S PACK	E1FW20S PACK-RC	N/A
0.5 X 12	11.6	GXD20 PACK	E1FW20S PACK-RC	205
0.5 X 18	13.4	GXD20 PACK	E1FW20S PACK-RC	205
0.5 X 25	15.5	GXD25 PACK	E1FW20S PACK-RC	205
0.75 X 2	7.2	GXD20S PACK	N/A	N/A
0.75 X 3	7.7	GXD205 PACK	N/A	N/A
0.75 X 4	8.3	GXD20S PACK	N/A	N/A
0.75 X 5	8.9	GXD20S PACK	N/A	N/A
0.75 X 7	9.7	GXD20S PACK	E1FW20S PACK-RC	N/A
0.75 x 12	12.1	GXD20 PACK	E1FW20S PACK-RC	205
0.75 x 18	15.3	GXD25 PACK	E1FW20S PACK-RC	205
0.75 X 25	16.8	GXD25 PACK	E1FW20 PACK-RC	20
1.0 X 2	7.6	GXD20S PACK	N/A	N/A
1.0 X 3	8.1	GXD20S PACK	N/A	N/A
1.0 X 4	8.6	GXD20S PACK	N/A	N/A
1.0 X 5	9.7	GXD20S PACK	E1FW20S PACK-RC	N/A
1.0 X 7	10.5	GXD20S PACK	E1FW20S PACK-RC	205
1.0 X 12	13.4	GXD20 PACK	E1FW20S PACK-RC	205
1.0 X 18	15.6	GXD25 PACK	E1FW20S PACK-RC	205
1.0 X 25	18.1	GXD25 PACK	E1FW20 PACK-RC	20
1.5 X 2	8.6	GXD20S PACK	N/A	N/A
1.5 X 3	9.1	GXD20S PACK	N/A	N/A
1.5 X 4	10.1	GXD20S PACK	E1FW20S PACK-RC	N/A
1.5 X 5	10.6	GXD20S PACK	E1FW20S PACK-RC	205
1.5 X 7	11.5	GXD20 PACK	E1FW20S PACK-RC	205
1.5 X 12	15.1	GXD25 PACK	E1FW20S PACK-RC	205
1.5 X 18	17.4	GXD25 PACK	E1FW20 PACK-RC	20

GXD		E1FW20 PACK	RC S	FORM GLAND
Size mm <sup>2</sup> & No. of Cores	Nom. Dia. mm	GXD Gland Part Number	E1FW-RC Gland Part Number	Storm Gland Part Number
2.5 X 3	10.4	GXD20S PACK	E1FW20S PACK-RC	N/A
2.5 X 4	11.3	GXD20 PACK	E1FW20S PACK-RC	205
2.5 X 5	12.9	GXD20 PACK	E1FW20S PACK-RC	205
2.5 X 7	13.9	GXD25 PACK	E1FW20S PACK-RC	205
4.0 X 4	13.5	GXD25 PACK	E1FW20S PACK-RC	205
4.0 X 5	14.8	GXD25 PACK	E1FW20S PACK-RC	205
6.0 X 4	15.9	GXD25 PACK	E1FW20S PACK-RC	20
6.0 X 5	17.4	GXD25 PACK	E1FW20 PACK-RC	20
10 X 4	19.1	GXD32 PACK	E1FW20 PACK-RC	20
10 X 5	22.6	GXD32 PACK	E1FW25 PACK-RC	25
16 X 4	22.3	GXD32 PACK	E1FW25 PACK-RC	25
25 X 4	32.5	GXD50S PACK	N/A	32
35 X 4	35.6	GXD50S PACK	N/A	N/A
50 X 4	38.7	GXD50 PACK	N/A	N/A
70 X 4	43.8	GXD50 PACK	N/A	N/A

Due to cable diameter variances between manufacturers, we strongly advise the cable diameter is checked prior to purchasing the products. See page 79 for product details.

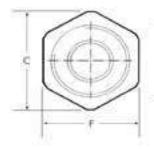


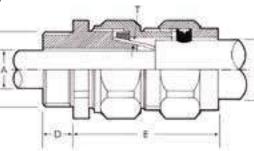
### **Aluminium Cable Glands**

#### **PEX®CW Aluminium Cable Gland Pack**

**Application**: Aluminium indoor and outdoor gland suitable for all types of aluminium wire armoured cable (AWA), providing an environmental seal on the cable outer sheath. The gland also provides mechanical retention and electrical continuity via armour wire termination.

Operating temp: -20°C to +80°C Ingress protection: IP66 EN60529 Approval: BS EN 50262:1999 Material: Aluminium Alloy





		Entry Thread		Cable A	Cable Acceptance Details		Hexagonal Details				Assembled Length	
	Part No.	Pack Quantity	Diameter N	Length D	Diameter A max	Diameter B min max	Armour wire size T	Gland A/F F	Body A/C C	Compres A/F F	sion Nut A/C C	E
PC	W20AL - PK	2	20	10	13.8	15.5 - 20.5	0.90/1.25	26.0	28.9	28.0	31.1	40.0
PC\	W25AL - PK	2	25	10	19.8	20.3 - 27.0	1.25/1.60	34.0	37.9	36.0	40.0	44.0
PC\	W32AL - PK	2	32	10	26.4	27.0 - 33.5	1.60/2.00	43.0	47.7	45.0	50.0	50.0
PC\	W40AL - PK	1	40	15	32.4	30.0 - 40.0	1.60/2.00	50.0	55.5	55.0	61.1	52.0
PC\	W50SAL - PK	1	50	15	38.0	39.8 - 46.3	2.00/2.50	57.0	63.3	60.0	66.6	54.0
PC\	W50AL - PK	1	50	15	44.0	46.0 - 52.5	2.00/2.50	62.0	68.8	65.0	72.2	54.0
PC\	W63SAL - PK	1	63	15	49.0	52.0 - 59.5	2.50	70.0	77.7	75.0	83.2	58.0
PC\	W63AL - PK	1	63	15	55.5	58.4 - 65.3	2.50	75.0	83.2	80.0	88.8	58.0

All dimensions are in mm.

#### Sizing Chart – XLPE / PVC / AWA / PVC – BS 5467 (Copper core – aluminium armour)

Cable Size mm²	Nominal Overall Diameter mm	Gland Part Number	Cable Size mm²	Nominal Overall Diameter mm	Gland Part Number
50	17.5	PCW20AL - PK	300	35.6	PCW40AL - PK
70	20.2	PCW20AL - PK	400	40.4	PCW50SAL - PK
95	22.3	PCW25AL - PK	500	44.2	PCW50SAL - PK
120	24.2	PCW25AL - PK	630	48.8	PCW50AL - PK
150	27.4	PCW32AL - PK	800	55.4	PCW63SAL - PK
185	30.0	PCW32AL - PK	1000	60.6	PCW63AL - PK
240	32.8	PCW32AL - PK			

Due to cable diameter variances between manufacturers, we strongly advise the cable diameter is checked prior to purchasing the products.



# **Cable Glands**

#### SWA's revolutionary SmartFit Glands™

#### Fast Action – just push and twist

Enjoy incredible time saving and increased profitability

- Time saving (just snaps into place)
- Locknut or threaded hole not required
- Push & twist gland to fit in seconds
- IP68 rated (5 bar, 30 mins)
- Flammability: UL94 V2
- UL Approved: E-199260
- VDE (0619) Approved: DIN EN 62444
- Fitted with neoprene seal so never perishes
- PA6 Polyamide construction
- Fits wall thickness 0.5mm-4mm
- Easy removal with separate tool
- Red, grey, black, white and nickel-plated brass versions in 16mm, 20S, 20, 25, 32 or 40mm sizes

Specialised Wiring Accessories' fast-action SmartFit Glands provide a revolutionary way of fixing cable glands that promises huge time savings for electricians.

Unlike traditional glands, SmartFit<sup>™</sup> glands can be fitted in seconds using a simple push and twist action and working solely from the outside of enclosures. No locknuts are used and there's not even any need for the enclosure hole to be threaded.

SmartFit<sup>™</sup> Glands use an ingenious combination of locking teeth and a spring-loaded collar to make installation both faster and easier. The glands are dust-tight and are protected against the prolonged effects of immersion (5 bar, 30 minutes), earning the SWA range the maximum IP68 rating.

#### Fast fit

The SmartFit<sup>™</sup> Gland is pushed through the hole from the outside, the locking teeth simply spring out to engage against the inside wall of the enclosure: with pressure from the spring-loaded collar on the outside of the enclosure, the gland just snaps into place.

Then a few further turns of the body of the gland are all that is needed to compress the collar and clamp it firmly against the gland's built-in seal on the outside of the enclosure wall. Finally, the cable is inserted and the conventional dome-headed nut is tightened to complete the installation.

#### **Remove and re-use**

If the SmartFit<sup>™</sup> gland needs to be removed, this can be done using a separate tool. By pushing the cone-shaped adaptor onto the gland inside the enclosure, the locking teeth are compressed and the gland can simply be lifted out of the hole. Again, the process takes just a couple of seconds and the gland can be re-used.

The range of SWA SmartFit<sup>™</sup> Glands comes in the popular 16mm, 20S, 20, 25, 32 or 40mm sizes for cable diameters from 5 - 28mm. The built-in seal is made of Neoprene, so it never perishes. The glands are a perfect fit for wall thicknesses from 0.5mm up to 4mm. Red, grey, black, white and nickel-plated brass versions are available.





### **Cable Glands**

### SWA's revolutionary SmartFit Glands™

Part Number	Description	Cable Dia Range mm	Pk Qty
CG/SF-16B	16mm Black SmartFit Cable Gland	5 - 10	10
CG/SF-20SR	20Smm Red SmartFit Cable Gland	6 - 12	10
CG/SF-20SG	20Smm Grey SmartFit Cable Gland	6 - 12	10
CG/SF-20SB	20Smm Black SmartFit Cable Gland	6 - 12	10
CG/SF-20SW	20Smm White SmartFit Cable Gland	6 - 12	10
CG/SF-20R	20mm Red SmartFit Cable Gland	7 - 13	10
CG/SF-20G	20mm Grey SmartFit Cable Gland	7 - 13	10
CG/SF-20B	20mm Black SmartFit Cable Gland	7 - 13	10
CG/SF-20W	20mm White SmartFit Cable Gland	7 - 13	10
CG/SF-25R	25mm Red SmartFit Cable Gland	11 - 17	5
CG/SF-25G	25mm Grey SmartFit Cable Gland	11 - 17	5
CG/SF-25B	25mm Black SmartFit Cable Gland	11 - 17	5
CG/SF-25W	25mm White SmartFit Cable Gland	11 - 17	5
CG/SF-32G	32mm Grey SmartFit Cable Gland	15 - 21	2
CG/SF-40G	40mm Grey SmartFit Cable Gland	19 - 28	1
CGB/SF-20S	20Smm NP Brass SmartFit Cable Gland	6 - 12	10
CGB/SF-20	20mm NP Brass SmartFit Cable Gland	7 - 13	10
CGB/SF-25	25mm NP Brass SmartFit Cable Gland	11 - 17	5
CGB/SF-32	32mm NP Brass SmartFit Cable Gland	15 - 21	2
CGB/SF-40	40mm NP Brass SmartFit Cable Gland	19 - 28	1
CGSFA-2025	20mm & 25mm Adaptor Removal Tools	-	2
CGSFA-3240	32mm & 40mm Adaptor Removal Tools	-	2

For a quick and informative example of how our SmartFit<sup>™</sup> Gland works, scan the QR code to view the SmartFit<sup>™</sup> Gland demonstration on YouTube or add the following code into your browser www.youtube.com/watch?v=Xirkm215s1s



 SmartFit™

 Gland cut-through

-

SmartFit™ Nickel-Plated

Brass

SmartFit™ Polyamide

> SmartFit™ Removal Tools

Patent No.: DE 10 2013 218 733 A1



# **Cable Glands**

#### **Consumer Unit Gland Range**

All consumer units must now comply with the 18th Edition Wiring Regulations to BS 7671:2018. SWA's gland range helps you meet these new regulations.

SWA has a comprehensive range of special cable glands as new rules came into force aimed at preventing house fires caused by overheating consumer units.

Regulation 421.1.201, introduced under Amendment 3 to BS 7671, has been introduced because fire investigators reported increasing numbers of fires involving consumer units in plastic enclosures.

SWA's new range of glands features specially designed inserts, providing an effective seal against flames. Available in both metal and nylon versions, it covers the full spectrum of applications, including meter tails, earth tails and twin & earth cables.





# 0000

Inserts for Main Tails and Twin & Earth Cable



#### Reducers



Part No.	Туре	Pack Qty
M32MXM40F-N	Nylon	Each
M32MXM40F-NP	Nickel-plated brass	Each
	_	

40mm female reducing to 32mm male

### **Membrane Cable Grommets**

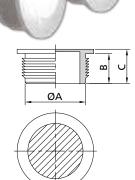
**Application**: Round membrane grommet in TPE to clip in that allows single cables, flat cables or several cables of small diameters to pass through it.

**Materials**: Polyethylene thermoplastic elastomer (TPE)

Colour: Light grey (RAL 7035) Protection rating: IP 66 according EN 60529

Temp rating: -40°C to +80°C

	Dim					
Part No.	Ø Cable max.	ØA		С	Ø Boring	Pack Qty
CUMG20	13	20	9.5	11	20.5	10
CUMG25	18	25	9.5	11	25.5	10
CUMG32	25	32	9.5	11	32.5	5





# **Cable Glands**

### **Consumer Unit Gland Range – Selection Chart**

#### **Threaded Version**

Part Number	Description	Thread Size mm	Insert Detail
CUGN-TYPE1	Nylon M32 Grey for 2x16 Tails & 1x16 Earth Tail	32	0
CUGN-TYPE2	Nylon M40 Grey for 2x25 Tails & 1x16 Earth Tail	40	0
CUGB-TYPE3	Brass M32 for 2x16 Tails & 1x16 Earth Tail	32	0
CUGB-TYPE4	Brass M40 for 2x25 Tails & 1x16 Earth Tail	40	0
CUGN-TYPE5	Nylon M20 Grey for 1x1-1.5mm Flat Twin & Earth Cable	20	0
CUGN-TYPE6	Nylon M20 Grey for 1x2.5-4.0mm Flat Twin & Earth Cable	20	0
CUGN-TYPE7	Nylon M20 Grey for 1x6mm Flat Twin & Earth Cable	20	0
CUGN-TYPE8	Nylon M25 Grey for 2x2.5mm Flat Twin & Earth Cable	25	θ
CUGN-TYPE9	Nylon M32 Grey for 1x10mm Flat Twin & Earth Cable	32	0
CUGN-TYPE10	Nylon M40 Grey for 1x16mm Flat Twin & Earth Cable	40	0
CUGB-TYPE11	Brass M20 for 1x1-1.5mm Flat Twin & Earth Cable	20	0
CUGB-TYPE12	Brass M20 for 1x2.5-4mm Flat Twin & Earth Cable	20	0
CUGB-TYPE13	Brass M20 for 1x6mm Flat Twin & Earth Cable	20	0
CUGB-TYPE14	Brass M25 for 2x2.5mm Flat Twin & Earth Cable	25	θ
CUGB-TYPE15	Brass M32 for 1x10mm Flat Twin & Earth Cable	32	0
CUGB-TYPE16	Brass M40 for 1x16mm Flat Twin & Earth Cable	4	0

#### SmartFit™ Gland Version

Part Number	Description	Thread Size mm	Insert Detail
CUSFGN-TYPE1	Nylon M32 Grey for 2x16 Tails & 1x16 Earth Tail	32	0
CUSFGN-TYPE2	Nylon M40 Grey for 2x25 Tails & 1x16 Earth Tail	40	0
CUSFGB-TYPE3	Brass M32 for 2x16 Tails & 1x16 Earth Tail	32	0
CUSFGB-TYPE4	Brass M40 for 2x25 Tails & 1x16 Earth Tail	40	0
CUSFGN-TYPE5	Nylon M20 Grey for 1x1-1.5mm Flat Twin & Earth Cable	20	0
CUSFGN-TYPE6	Nylon M20 Grey for 1x2.5-4.0mm Flat Twin & Earth Cable	20	0
CUSFGN-TYPE7	Nylon M20 Grey for 1x6mm Flat Twin & Earth Cable	20	0
CUSFGN-TYPE8	Nylon M25 Grey for 2x2.5mm Flat Twin & Earth Cable	25	θ
CUSFGN-TYPE9	Nylon M32 Grey for 1x10mm Flat Twin & Earth Cable	32	0
CUSFGN-TYPE10	Nylon M40 Grey for 1x16mm Flat Twin & Earth Cable	40	0
CUSFGB-TYPE11	Brass M20 for 1x1-1.5mm Flat Twin & Earth Cable	20	0
CUSFGB-TYPE12	Brass M20 for 1x2.5-4mm Flat Twin & Earth Cable	20	0
CUSFGB-TYPE13	Brass M20 for 1x6mm Flat Twin & Earth Cable	20	0
CUSFGB-TYPE14	Brass M25 for 2x2.5mm Flat Twin & Earth Cable	25	θ
CUSFGB-TYPE15	Brass M32 for 1x10mm Flat Twin & Earth Cable	32	0
CUSFGB-TYPE16	Brass M40 for 1x16mm Flat Twin & Earth Cable	40	0



# **Cable Glands**

#### **Polyamide Metric Cable Glands**

**Material**: Polyamide 6 (halogen free) Trade name: Ultramid B

Protection class: IP68 5 bar

Operating temp range: -30°C to +80°C

**Intermittent temp**: Up to +150°C intermittent **Seal**: Neoprene

**Approvals**: Underwriters Laboratories (UL Approval) – Cert. no: E178501(N)



Canadian standards (CSA Approval) – Cert. no: 1454383

VDE Approval DIN EN 50262 (VDE 0619)

### Properies of plastic cable glands:

Gross density DIN 53457: 1.14g/cm<sup>3</sup>

### Chemical characteristics:

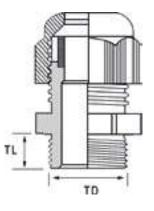
Resistant to: Acids – high concentrate (conditionally resistant) Acids – low concentrate Fuel DIN gasoline/super Fuel DIN diesel Mineral oil Vegetable oils and fats



Mechanical Values (at 23°C)							
Tensile Strength DIN 53455 50N/mm <sup>2</sup>							
Bending Stress Limit	DIN 53455	130N/mm²					
Notch Impact Strength	DIN 53455	No break					

Electrical Values (at 23°C)							
Dielectric Strength	DIN 53455	100 - 150 Kv/m					
Surface Resistance	DIN 53455	10 <sup>10</sup> Ohm					

Part No.*	Unit of Supply	TD	TL	Spanner Size	Clamping Range	Recommended Cap Tightening Torque (Nm)
CG/LNM12	50	12	8	15	3.0 - 6.5	1.7
CG/LNM16	50	16	10	22	5.0 - 10.0	2.5
CG/LNM20S	50	20	10	24	6.0 - 12.0	2.5
CGLNM20S-PK10	10	20	10	24	6.0 - 12.0	2.5
CG/LNM20	50	20	10	27	10.0 - 14.0	3.3
CGLNM20-PK10	10	20	10	27	10.0 - 14.0	3.3
CG/LNM25	25	25	10	33	13.0 - 18.0	5.0
CGLNM25-PK10	10	25	10	33	13.0 - 18.0	5.0
CG/LNM32	Each	32	18	42	18.0 - 25.0	11.0
CG/LNM40	Each	40	18	53	22.0 - 32.0	12.0
CG/LNM50	Each	50	18	60	30.0 - 38.0	12.0
CG/LNM63	Each	63	18	65	34.0 - 44.0	12.0



CG/LNM Glands supplied with washer and locknut. Locknuts available seperately – Prices P.O.A.

\*Specify colour required

Standard colours: black (RAL 9005), dark grey (RAL 7001), light grey (RAL 7035), white (RAL 9003), red (RAL 3020), blue (RAL 5015).

(N.B colours limited on certain sizes – 40mm, 50mm & 63mm only available in black & light grey) Long threaded version available (subject to M.O.Q).





### **Cable Glands**

#### **Polyamide PG Cable Glands**

Part No.*	Unit of Supply	TD	TL	Spanner Size	Clamping Range	Recommended Cap Tightening Torque (Nm)
CGPG7	Each	13	8	15	3.0 - 6.5	1.7
CGPG9	Each	16	8	19	4.0 - 8.0	2.5
CGPG11	Each	19	8	22	5.0 - 10.0	2.5
CGPG13.5	Each	21	9	24	6.0 - 12.0	2.5
CGPG16	Each	23	10	27	10.0 - 14.0	3.3
CGPG21	Each	29	11	33	13.0 - 18.0	5.0
CGPG29	Each	37	11	42	18.0 - 25.0	5.0
CGPG36	Each	47	13	53	22.0 - 32.0	12.0
CGPG42	Each	54	13	60	30.0 - 38.0	12.0
CGPG48	Each	59	14	65	34.0 - 44.0	12.0

All dimensions are in mm.

#### **Polyamide Metric Cable Glands**

#### HAZARDOUS AREAS

Examination certificate number: IMQ 08 ATEX 012 X Examination & test report number: 43Al00015-43Al00015.1 Safety requirements: EN60079-0:2006 / EN60079-7:2007/ EN60079-11:2007 / EN61241-1:2004

**Equipment marking**: Increased Safety "e" and Intrinsic Safety "I" x 11 2GD, Ex e II, Ex i, Ex tD A21 (The cable glands Ex e II can be used with circuits Ex i.

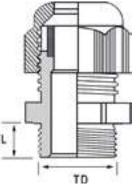
These cable glands should have a nut coloured light blue). Suitable for use in: Zone 1, Zone 2 for Groups IIA, IIB, IIC. For: Gas & dust potential explosive atmospheres

Degree of protection: IP66-IP68 (EN 60529)

Temp range: -20°C to +80°C

Part No.	M ISO-pitch 1.5	R Ø Standard Rubber min max	L	H min	СН	CH1
CGLNM20SB-EEXE	20	6.0 - 12.0	10	41	24	24
CGLNM20B-EEXE	20	10.0 - 14.0	10	42	27	27
CGLNM25B-EEXE	25	13.0 - 18.0	10	47	33	33
CGLNM32B-EEXE	32	18.0 - 25.0	15	58.5	42	42
CGLNM40B-EEXE	40	22.0 - 32.0	18	68	53	53
CGLNM50B-EEXE	50	30.0 - 38.0	18	69	60	60
CGLNM63B-EEXE	63	34.0 - 44.0	18	71	65	65

Sold in eaches. All dimensions are in mm.

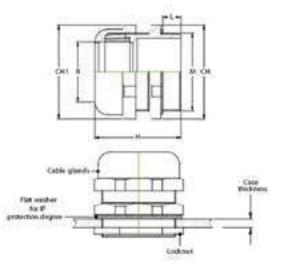


Locknuts supplied separately – Part No. PLNPG(size)-(colour) e.g. PLNPG7-G

\*Specify colour required

Standard colours: black (RAL 9005), dark grey (RAL 7001), light grey (RAL 7035), white (RAL 9003), red (RAL 3020), blue (RAL 5015). (N.B colours limited on certain sizes)







# **Cable Glands**

#### **Glands for Electromagnetical Purposes – EMC Range**

#### **Applications**:

- Suitable for the shielding of cable for electromagnetical purposes
- Cable gland with neoprene sealing-ring and polyamide traction relief clamping insert
- Supplied with lock-nut and neoprene O-ring on entry thread

**Approval**: BS EN 50262:1999

Ingress protection: IP68 EN60529

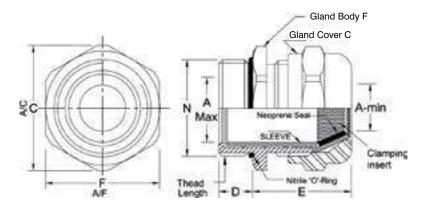
**Temp range**: -20°C to +100°C

Pressure rating: 5 bar

Finish: Bright nickel-plated



EMC Range



	Entry Th	nread	Cable Acceptance Details				al Assembled Length	
Part No.	Thread N	Length D	Minimum A	Maximum A	A/F F	A/C C	E	
EMC16NP	M16 x 1.5	10.0	5.5	9.0	18.0	20.0	17.0	
EMC20NP	M20 x 1.5	10.0	8.5	12.5	22.0	24.4	18.0	
EMC25NP	M25 x 1.5	10.0	12.0	16.5	27.0	30.0	20.0	
EMC32NP	M32 x 1.5	13.0	16.0	21.0	34.0	37.7	23.0	
EMC40NP	M40 x 1.5	13.0	19.5	27.0	43.0	47.7	29.0	
EMC50NP	M50 x 1.5	14.0	25.0	34.0	55.0	61.0	34.0	
EMC63NP	M63 x 1.5	14.0	32.0	42.0	68.0	75.5	35.0	

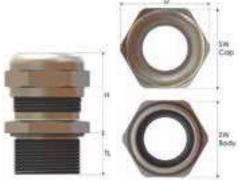
Sold in eaches. All dimensions are in mm.

#### **Glands for Electromagnetical Purposes – EMC Grip Range**

# EMC cable glands with fixed spring contact

- Glands supplied with locknut and entry seal
- Long-lasting contact by using a high definition contact spring

Material: Brass nickel plated Seal: CR (Chloroprene Rubber)



Clamping Insert: PA6 (Polyamide 6) Protection Class: IP68 – 5 Bar, 30min Flammability: V2 according to UL94 Operating Temperature: -20°C to +100°C Thread Type: Metric EN 60423

Manufactured: to Din EN62444/50262



EMC Grip Range

		Entry Thread		Cable Acceptance Details		Hexagonal Details		Assembled Length
	Part No.	Thread N	Length TL	Minimum A	Maximum A	Body SW	Cap SW	н
p	EMC16NP-LP	M16 x 1.5	7.0	4.0	8.0	18.0	17.0	23.0
	EMC20NP-LP	M20 x 1.5	8.0	6.0	12.0	22.0	22.0	24.5
	EMC25NP-LP	M25 x 1.5	8.0	10.0	14.0	27.0	24.0	28.0
	EMC32NP-LP	M32 x 1.5	9.0	13.0	18.0	34.0	30.0	32.5
	EMC40NP-LP	M40 x 1.5	9.0	18.0	25.0	43.0	40.0	38.0
۴.	EMC50NP-LP	M50 x 1.5	9.0	22.0	32.0	55.0	50.0	48.0
	EMC63NP-LP	M63 x 1.5	14.0	34.0	44.0	68.0	64.0	53.0

Sold in eaches. All dimensions are in mm.





# **Cable fixings**

97-100
101
102-103
104
105
106
107-111
112

Sta



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

# **Cable fixings**

# **Nylon Cable Ties**

### Standard Cable Ties (not commercial grade nylon)

Suitable for a variety of applications, such as cable binding or harnessing

- Manufactured from UL approved virgin nylon 6/6
- General operating temp: -40°C to +85°C
- Flammability rating: UL94V-2 (self-extinguishing within 30 seconds)
- UV resistant for outdoor use (black ties only)
- Black ties are halogen free
- RoHS compliant



#### **Black and Natural Ties**

Part No.	Size (mm)	Colour	Bundle Dia. (mm)	Min. Tensile Strength (kg)
CT100-2.5N	100 x 2.5	Natural	21	8
CT100-2.5B	100 x 2.5	Black	21	8
CT160-2.5N	160 x 2.5	Natural	40	8
CT160-2.5B	160 x 2.5	Black	40	8
CT200-2.5N	200 x 2.5	Natural	52	8
CT200-2.5B	200 x 2.5	Black	52	8

Pack Quantity: 100

(kg)

Pack Quantity: 1000

Part No.	Size (mm)	Colour	Bundle Dia. (mm)	Min. Tensile Strength (kg)
CT140-3.6N	140 x 3.6	Natural	32	18
CT140-3.6B	140 x 3.6	Black	32	18
CT200-3.6N	200 x 3.6	Natural	50	18
CT200-3.6B	200 x 3.6	Black	50	18
CT300-3.6N	300 x 3.6	Natural	80	18
CT300-3.6B	300 x 3.6	Black	80	18

Pack Quantity: 100



Part No.	Size (mm)	Colour	Bundle Dia. (mm)	Min. Tensile Strength (kg)
CT120-4.8N	120 x 4.8	Natural	24	22
CT120-4.8B	120 x 4.8	Black	24	22
CT160-4.8N	160 x 4.8	Natural	40	22
CT160-4.8B	160 x 4.8	Black	40	22
CT200-4.8N	200 x 4.8	Natural	50	22
CT200-4.8B	200 x 4.8	Black	50	22
CT250-4.8N	250 x 4.8	Natural	68	22
CT250-4.8B	250 x 4.8	Black	68	22
CT300-4.8N	300 x 4.8	Natural	78	22
CT300-4.8B	300 x 4.8	Black	78	22
CT370-4.8N	370 x 4.8	Natural	100	22
CT370-4.8B	370 x 4.8	Black	100	22
CT430-4.8N	430 x 4.8	Natural	115	22
CT430-4.8B	430 x 4.8	Black	115	22

Pack Quantity: 100

#### **Colour Cable Ties**

Part No.*	Size (mm)	Bundle Dia. (mm)	Min. Tensile Strength (kg)
CT100-2.5	100 x 2.5	21	8
CT160-2.5	160 x 2.5	40	8
CT200-2.5	200 x 2.5	52	8
CT200-4.8	200 x 4.8	50	22
CT300-4.8	300 x 4.8	78	22

Pack Quantity: 100

\*Please specify colour required – Red (red), Blue (blu), Yellow (yel), Green (gre), Orange (ora). CT300-4.8 also available in silver (svr).



# **Nylon Cable Ties**

### **Standard Cable Ties**

#### **Black and Natural Ties**

Part No.	Dimension (mm)	Colour	Bundle Dia. (mm)	Min. Loop Tensile Strength (kg)
CT200-7.8B	200 x 7.8	Black	45	55
CT200-7.8N	200 x 7.8	Natural	45	55
CT240-7.8N	240 x 7.8	Natural	63	55
CT240-7.8B	240 x 7.8	Black	63	55
CT300-7.8N	300 x 7.8	Natural	80	55
CT300-7.8B	300 x 7.8	Black	80	55
CT370-7.8N	370 x 7.8	Natural	100	55
CT370-7.8B	370 x 7.8	Black	100	55

Pack Quantity: 100

Part No.	Dimension (mm)	Colour	Bundle Dia. (mm)	Min. Loop Tensile Strength (kg)
CT450-8.0N	450 x 7.8	Natural	130	55
CT450-8.0B	450 x 7.8	Black	130	55
CT540-8.0N	540 x 7.8	Natural	158	55
CT540-8.0B	540 x 7.8	Black	158	55
CT750-8.0N	750 x 7.8	Natural	220	55
CT750-8.0B	750 x 7.8	Black	220	55

Pack Quantity: 100

For coloured cable ties please see previous page.

Part No.	Dimension (mm)	Colour		Min. Loop Tensile Strength (kg)
CT530-9.0N	530 x 9.0	Natural	158	71
CT530-9.0B	530 x 9.0	Black	158	71
CT780-9.0N	780 x 9.0	Natural	233	71
CT780-9.0B	780 x 9.0	Black	233	71

Pack Quantity: 100

Part No.	Dimension (mm)	Colour	Bundle Dia. (mm)	Min. Loop Tensile Strength (kg)
CT500-12.6N	500 x 12.6	Natural	143	110
CT500-12.6B	500 x 12.6	Black	143	110
CT1000-12.6N	1000 x 12.6	Natural	302	110
CT1000-12.6B	1000 x 12.6	Black	302	110

Pack Quantity: 100 (except CT1000 pk 50)

Part No.	Dimension (mm)	Colour	Bundle Dia. (mm)	Min. Loop Tensile Strength (kg)
CT580-13.0B	580 x 13.0	Black	143	110
CT580-13.0N	580 x 13.0	Natural	143	110

Pack Quantity: 100

#### Cable Tie Tensioning Tool – CTG2248

Moulded cable tie tensioning tool complete with cut off facility for nylon ties 2.2mm - 4.8mm width.



#### Cable Tie Tensioning Tool – CTG2248MET

Metal cable tie tensioning tool with cut off facility for nylon ties 2.2mm - 4.8mm width.



#### Cable Tie Tensioning Tool – CTG3690

Metal cable tie tensioning tool with cut off facility for nylon cable ties 3.6mm - 9.0mm width.





# **Nylon Cable Ties**

### **Push Mounting Cable Ties**

**Material**: UL approved virgin nylon 6/6 **Colour**: Natural (NPM) and Black (BPM) Self-extinguishing UL 94 V-2

	Dimensions in mm					Min. Loop
Part No.	Length	Width	Ø Hole	Panel Thickness	Maximum Bundle Dia.	Tensile Strength (kg)
CT200-4.8B/PM	200	4.8	6.3	3.6	50	22
CT200-4.8N/PM	200	4.8	6.3	3.6	50	22



Pack Quantity: 100

#### **Cable Ties with Mounting Hole**

**Material**: UL approved virgin nylon 6/6 **Colour**: Natural (NMH) and Black (BMH) Self-extinguishing UL 94 V-2

		Min. Loop			
Part No.	Length	Width	Screw Hole	Maximum Bundle Dia.	Tensile Strength (kg)
CT150-3.6N/MH	150	3.6	4.5	32	13
CT200-4.8N/MH	200	4.8	4.5	47	22
CT200-4.8B/MH	200	4.8	4.5	48	22

Pack Quantity: 100

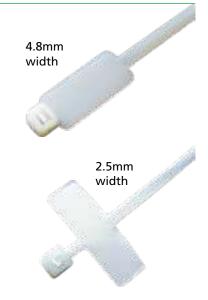
#### **Cable Ties For Identification**

**Material**: UL approved virgin nylon 6/6 **Colour**: Natural Self-extinguishing UL 94 V-2

		Min. Loop			
Part No.	Length	Width	Tab Size	Maximum Bundle Dia.	Tensile Strength (kg)
CT100-2.5N/M	100	2.5	25 x 20	20	8
CT200-2.5N/M	200	2.5	28 x 13	50	8
CT200-4.8N/M	200	4.8	28 x 13	48	22

Pack Quantity: 100







# **Nylon Cable Ties**

## **Releasable Cable Ties**

These ties, which are easily assembled by hand or with pliers, remain securely locked until intentionally released by operating the finger catch. Suitable for temporary fastening purposes.

**Material**: UL approved virgin nylon 6/6 **Colour**: Black Self-extinguishing UL 94 V-2

Part No.		Min. Loop Tensile			
Part NO.	Length	Width	Maximum Bundle Dia.	Strength (kg)	
CT300-4.8B/RE	300	4.8	80	22	
CT250-7.8B/RE	250	7.8	65	22	
CT370-7.6B/RE	370	7.6	100	22	

Pack Quantity: 100

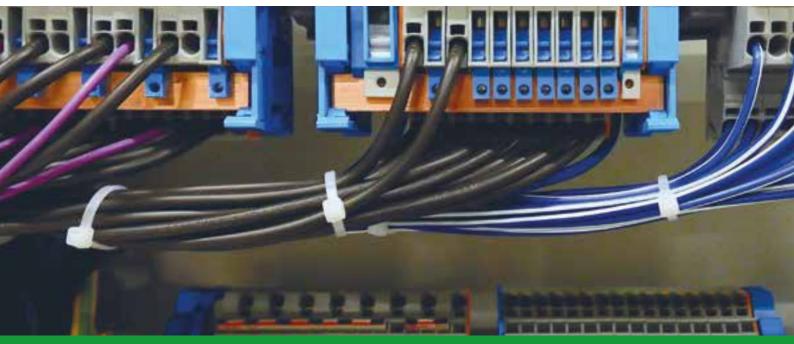
#### **Material**: UL approved virgin nylon 6/6 **Colour**: Red Self-extinguishing UL 94 V-2

Dort No.		Min. Loop Tensile		
Part No.	Length	Width	Maximum Bundle Dia.	Strength (kg)
CT250-7.8RED/RE	250	7.8	65	22

Pack Quantity: 100



1



100 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk



# **Special Application Cable Ties**

## **Polypropylene Cable Ties**

- For chemical resistance in indoor or for outdoor / weather resistant applications that are unsuitable for standard nylon cable ties
- These ties can be used in areas where hydrochloric acid, salts and bases are present
- Curved tip is easy to pick up from flat surfaces and allows faster initial threading to speed installation
- Maximum continuous operating temperature: 115°C

#### **Outdoor Applications**

Material Flammability Rating: UL94HB Colour: Black

#### **Indoor Applications**

Material Flammability Rating: Not recognised Colour: Green

				-	
Part No.		Di	Min. Loop		
Outdoor	Indoor	Length	Width	Maximum Bundle Dia.	Tensile Strength (kg)
CT188-4.8B-PP	CT188-4.8G-PP	188	4.8	48	13
СТ292-4.8В-РР	CT292-4.8G-PP	292	4.8	76	13
CT368-4.8B-PP	CT368-4.8G-PP	368	4.8	102	13
CT368-7.6B-PP	CT368-7.6G-PP	368	7.6	102	22

Pack Quantity: 100

### **Metal Content Tie**

The metal content tie is a cable tie specifically designed for use in the food and pharmaceutical and chemical processing industries.

A unique manufacturing process, involving the inclusion of metallic particles, enables the tie to be detected more readily than standard nylon ties.

- Nylon tie incorporating a metallic compound throughout the length of the tie
- Can be used as part of HACCP proces
- Blue in colour to assist in detection (RAL 5007)
- Greatly reduces the risk of contamination

			Avg. Tensile		
in detection	Part No.	Length	Width	Maximum Bundle Dia.	Strength in kg
k of	CT140-3.6MC	140	3.6	32	18
	CT200-4.8MC	200	4.8	50	22
	CT280-4.8MC	280	4.8	78	22
	CT380-4.8MC	380	4.8	100	22

Pack Quantity: 100

SWA cannot guarantee that our products will be detectable by your metal detectors. Therefore, we cannot take responsibility for any non-detection of our products or their parts. Delectability of our products depends on metal detector settings, and type of food products produced (product composition, size, humidity etc). In order to make sure that our detectable ties will be detected we strongly recommend that you test them on your detectors before use. **Material**: Detectable ties of polyamide 6.6 Flame resistance in accordance with UL94V-HB (not self-extinguishing)

Temp range: -40°C to +65°C

Water absorption: Can absorb up to 8% when immersed.

**Solution resistance**: Solvents, oils, lubricants petroleum derivatives and Alkalis when used at low temperatures in low concentrates and for short periods of time.

C E R

Acids, Phenols and chlorinated solvents – No





# **Nylon Cable Tie Accessories**

#### Self Adhesive Mounts – Two Way

Material: UL approved virgin nylon 6/6

SAM28 supplied with M6 centre screw fixing hole. For best results mountings should only be applied to clean, dry, smooth surfaces, free from dust, oils, grease or solvents.

Part No.	Size (mm)	To accept Tie Width (mm)	Colour
SAM20N-2	19 x 19	3.6mm	Natural
SAM20B-2	19 x 19	3.6mm	Black
SAM28N-2	28 x 28	4.8mm	Natural
SAM28B-2	28 x 28	4.8mm	Black

Pack Quantity: 100

#### **Wall Plug Bases**

**Material**: UL approved virgin nylon 6/6 Suitable for cable ties up to 9mm wide. The wall plug bases avoid friction of the cable on the wall protecting the insulation.

	Dimensions in mm						
Part No.	А	В	С	D	Drill Hole Size		
CTFB6	6.8	37	6.0	9.2	6		
CTFB9	10	37	6.5	9.2	8		

Pack Quantity: 100 Black only

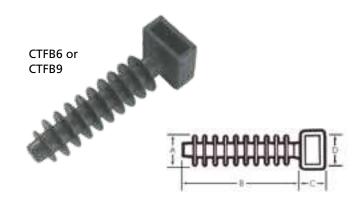
#### **Adhesive Cable Clamps**

**Material**: UL approved virgin nylon 6/6 **Colours**: Black and Natural

Part	No.	Dimensions in mm					
Natural	Black	Max Cable A B C D E Width				E	
ACC2N	ACC2B	26	12.5	8	11	16	16

Pack Quantity: 100









# **Nylon Cable Tie Accessories**

## **Cable Tie Supports**

05 Material: UL approved virgin nylon 6/6 Black only. Screwed support. For cable ties up to 9mm width. Fixing is suitable for either a countersunk or flat head screw. For wall plug max 8mm. **Dimensions in mm** Max Cable Width Ø Screw Hole | Max Support Width Part No. Support Height CTS9B 9.5 5 14 18

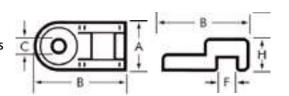
Pack Quantity: 100

## **Cable Tie Eyelets**

**Material**: UL approved virgin nylon 6/6

Mounted with standard screws or rivets.

Particularly useful when space is limited.





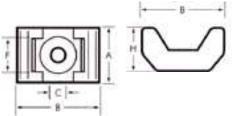
Part	t No.	Dimensions in mm					
Natural	Black	Max Cable Width	Α	В	С	F	Н
EL4.8N	EL4.8B	4.8	10	20	4.3	5	6

Pack Quantity: 100

#### **Cable Tie Cradles**

**Material**: UL approved virgin nylon 6/6 Provides extra support for large

bundles and many components.



Part	No.	Dimensions in mm					
Natural	Black	Max Cable Width	Α	В	С	F	Н
CRAD48N	CRAD48B	5.0	9.5	15	3.5	5	7
CRAD78N	CRAD78B	9.0	15	25	5	9	11

Pack Quantity: 100



# **Cable Ties**

# Stainless Steel Roller-Ball Lock Cable Ties

- Stainless steel 316L to BS EN 1008:1995
- A unique locking ball mechanism that allows the tie to be quickly and easily installed.
- Ideal for use in environmentally harsh conditions where subjected to various chemicals, acids, salts and high temperatures.
- Pure polyester coated LSZH (low smoke, zero halogen) ties also available providing additional insulation and protection to the bundle materials.

Par	t No.	D	imensior	ns mm	Min. Tensile Strength kg	
Uncoated	Coated	Length	Width	Bundle Dia.	Uncoated	Coated
SSTRB200-4.6	SSTRB200-4.6BLK	200	4.6	50	45	45
SSTRB260-4.6	SSTRB260-4.6BLK	260	4.6	69	45	45
SSTRB300-4.6	SSTRB300-4.6BLK	300	4.6	82	45	45
SSTRB360-4.6	SSTRB360-4.6BLK	360	4.6	100	45	45
SSTRB360-7.9	SSTRB360-7.9BLK	360	7.9	114	45	113
SSTRB520-7.9	SSTRB520-7.9BLK	520	7.9	151	113	113
SSTRB680-7.9	SSTRB680-7.9BLK	680	7.9	203	113	113
SSTRB840-7.9	n/a	840	7.9	253	113	113
SSTRB1000-7.9	n/a	1000	7.9	304	113	n/a

Pack Quantity: 100, except 840 & 1000 – Pk50

	D	imensions in mr	n	
Part No.	Length	Width	Bundle Dia.	Min. Tensile Strength kg
SSTRB200-4.6RED	200	4.6	50	45
SSTRB260-4.6RED	260	4.6	69	45
SSTRB300-4.6RED	300	4.6	82	45
SSTRB360-4.6RED	360	4.6	100	45

Pack Quantity: 100

# **Stainless Steel Releasable Cable Ties**

- The unique buckle design provides quick, easy application which can be unfastened for re-using.
- Ideal for use in environmentally harsh conditions where subjected to various chemicals, acids, salts and high temperatures.
- Black Nylon coated ties also available providing additional chemical and weathering resistance properties as well as providing insulation and additional protection to the bundle materials.

#### Material:

Stainless steel AISI304 (Uncoated) Stainless steel AISI304 (Coated)

**Operating temp range**: -80°C to +538°C

Uncoated	Dimensions (mm)				
Part No.	Length	Width	Bundle Dia.		
SSTNR150-6	150	6.3	25		
SSTNR225-6	225	6.3	63		
SSTNR300-6	300	6.3	86		
SSTNR450-6	450	6.3	137		
SSTNR610-6	610	6.3	185		
Pack Quantity:	100				

Pack Quantity: 100

Coated	Dimensions (mm)					
Part No.	Length	Width	Bundle Dia.			
SSTNR229-6NC	229	6.3	63			
SSTNR305-6NC	305	6.3	86			
SSTNR457-6NC	457	6.3	137			
SSTNR457-9NC	457	9.5	137			
Pack Quantity: 10	00					



Stainless steel 316L

#### **Operating temp range**: -60°C to +300°C (Uncoated) -60°C to +150°C (Coated)

Approval: BS 5839-1: 2013 (Section 26.2d) BS 50200: 2015 BS 8434-2: 2003 Flammability:

Tested to: BS 5839-1 :2013 (terms man)

UL 94, Halogen free and UV resistant







# 104 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk



# **Fixing Band & Buckles**

## **Stainless Steel Banding Tape**

- Type AISI304 stainless steel
- Excellent corrosion resistance
- Ideal for fixing insulation, bundling and securing of cables and pipes



	Dir	mensions in n	nm	
Part No.	Length	Width	Thickness	Weight in kg
SSBT9	30.5	9.5	0.6	1.4
SSBT12	30.5	12.7	0.7	2.1
SSBT16	30.5	16.0	0.7	2.7
SSBT19	30.5	19.0	0.7	3.2

## **Stainless Steel Cable Tie Mount**

A durable and strong cable tie mount suitable for the SWA range of stainless steel cable ties – available with an M6 fixing hole to accommodate a wide range of fixing methods.

- For indoor and outdoor use, fully weather and UV resistant
- Ideal for hazardous environments
- Fire and corrosion resistant

Material: 316L Stainless Steel Operating temp: -80°C to +538°C Flammability: Non-flammable

	Dime	ensions ir	n mm		
Part No.	Length	Width	Height	Fixing Hole Size mm	Max. Tie Width mm
SSTB	29.2	15.0	5.2	6.2	10.0

Pack Quantity: 50

#### **Stainless Steel Buckles**

Part No.	To Suit Band	Box Qty
SSB9	SSBT9 (9.5mm width)	100
SSB12	SSBT12 (12.7mm width)	100
SSB16	SSBT16 (16mm width)	100
SSB19	SSBT19 (19mm width)	100

### **Application Tools**

**SSBTT19** – Mechanical tensioning tool suitable for stainless steel strapping band up to 19mm width.





## Firefly<sup>™</sup> Buckle Clips

Red coated mild steel clip for fire cables and other applications – 5mm hole. Can be used with a gas nail gun or with a standard masonry screw fixing.

- Easy to install
- Up to 10 times quicker to install than conventional cable clipping methods
- Clip designed to securely hold either one or two cables
- Cable diameter suitability = 8.0 to 8.5mm
- Meets the cable support requirements of BS 5839-1:2017

Part No.	Description	Pack Qty
FFBC	Buckle Clip for one cable dia 8.0-8.5mm	50
FFBC1	Buckle Clip for two cables dia 8.0-8.5mm	50



# **Firefly™ Products**

## Firefly™ Fire Resistant Metal Cable Cleats

Important new regulations in the 18th Edition of BS7671 require all cables to be supported so that they are prevented from premature collapse in the event of fire.

Tragically, lives of firefighters and others have been lost when they have become entrapped by fallen cables in burning buildings.

#### This must not be allowed to happen again.

Firefly™ Fire Safety Clips and Cleats provide an all metal fire resistant range of cable fixings that will hold cables and cleats in place during a fire, thereby increasing the safety of firefighters and people escaping from burning buildings.

The Firefly™ range of fire resistant clips and cleats covers all cable sizes from small data-comm cables to large 50mm diameter.

Firefly<sup>™</sup> Fire Resistant Cable Clips are simple, quick and easy to install and are economically priced.

They offer full compliance to the new regulations in the 18th Edition.

In short, the new 18th Edition details all the issues. Firefly™ Fire Resistant Support Clips and Cleats provide all the solutions and SWA supply all the full range of Firefly™ Clips and Cleats.

- Designed to save lives
- New BS7671 18th Edition Compliant
- Firefly All Metal Cable Fixings strong and impact resistant
- Sizes match existing No 5 to No 20 plastic cleats
- Clips & Cleats for all sizes in corrosion resistant finishes
- Coating powder coated LSF
- Adjustable cleat range also available
- Quick, simple & easy to install

#### **INSTALL • PROTECT • COMPLY**





**Fixed Cleat** 

	Cable Dian	neter (mm)		
Part No.	Min	Max	Fixing Hole Size (mm)	Pack Qty
FFMC5	10.1	12.7	6	100
FFMC6	12.6	15.7	6	100
FFMC7	15.1	17.8	6	100
FFMC8	17.7	20.3	6	50
FFMC9	20.2	22.8	6	50
FFMC10	22.7	25.4	6	50
FFMC11	25.3	27.7	6	50
FFMC12	27.6	30.5	6	50
FFMC14	30.4	35.5	6	50
FFMC16	35.4	40.6	6	50
FFMC18	40.5	45.7	6	50
FFMC20	45.6	50.8	6	50

#### **Adjustable Cleat**

	Cable Dian	neter (mm)		
Part No.	Min	Max	Fixing Hole Size (mm)	Pack Qty
FFAMC1220	12.7	12.7 20		50
FFAMC2035	20 35.5		6	50
FFAMC3550HD	35.5	50	6	50

Fixed Cleat

N.B. Masonry screws must be used to comply with BS 7671, see page 48

Adjustable

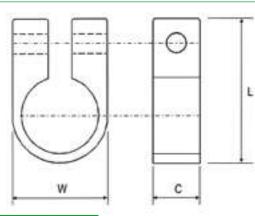
Cleat



# Cable Cleats

### **One Piece Single Fixing Cable Cleats**

A comprehensive range of single fixing cable cleats to provide a simple, but strong means of securing cables. Suitable for use with cables or pipes up to 50.8mm in overall diameter. The range is augmented by the two part two hole fixing cleats which cover from 50mm to 85mm overall diameter.





	Cable Diameters in mm		Dim	ensions ir	n mm		
Part No.	Min	Мах	w	с	L	Fixing Hole Size (mm)	Pack Quantity
C3-100	5.0	7.6	12.0	15.0	25.0	6	100
C4-100	7.7	10.0	14.0	15.0	27.0	6	100
C5-100	10.1	12.7	16.0	15.0	29.0	6	100
C6-100	12.6	15.2	19.0	15.0	32.0	6	100
C7-100	15.1	17.8	23.0	16.0	36.0	6	100
C8-100	17.7	20.3	24.0	19.0	38.0	6	100
C9-100	20.2	22.8	27.0	19.0	42.0	6	100
C10-100	22.7	25.4	31.0	19.0	45.0	6	100
C11-50	25.3	27.7	33.0	22.0	50.0	6	50
C12-50	27.6	30.5	38.0	24.0	58.0	10	50
C14-50	30.4	35.5	44.0	25.0	64.0	10	50
C16-50	35.4	40.6	49.0	25.0	70.0	10	50
C18-50	40.5	45.7	53.0	25.0	74.0	10	50
C20-50	45.6	50.8	57.0	26.0	80.0	10	50

#### Features

- Manufactured in high strength polypropylene
- High impact resistance
- Unaffected by corrosive environments
- Higher mechanical strength than polyethylene
- High level of resistance to ultra-violet light
- Stable at -35°C to +105°C constant

Low Smoke Halogen Free & Fire Retardant Cleats (LSF) range available on request (subject to M.O.Q).

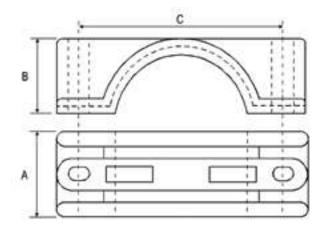




# **Cable Cleats**

## **TC Two Part Two Hole Fixing Cable Cleat**

The TC range is manufactured in polypropylene, a plastic which has high electrical resistance, excellent tensile strength and stability at high and low temperatures. An ideal clamp where there is a highly corrosive atmosphere. Manufactured in black to minimise possibility of UV damage. The two part range for cables 50mm - 85mm diameter is intended to augment our range of single fixing cleats which accommodate cable from 5.0mm in overall diameter to 50.8mm in overall diameter.



	Cable Diam	eters in mm	Dime	ensions ir	n mm	
Part No.	Min	Max	W	С	L	Clearance Bolt Holes
TC8	41.0	48.0	59.0	31.0	75.0	2 x 10mm
TC9	48.0	57.0	60.0	32.0	76.2	2 x 10mm
TC10	57.0	64.0	60.0	35.0	76.2	2 x 10mm
TC11	64.0	70.0	62.5	40.0	114.3	2 x 10mm
TC12	70.0	76.0	62.5	44.0	114.3	2 x 10mm
TC14	76.0	85.0	63.5	46.5	114.3	2 x 10mm

LSF: Low Smoke Halogen Free & Fire Retardent Cleats available on request. Larger sizes available (subject to M.O.Q).



#### Features

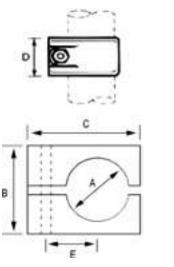
- Manufactured in high strength polypropylene
- High impact resistance
- Unaffected by corrosive environments
- Higher mechanical strength than polyethylene
- High level of resistance to ultra-violet light
- Stable at -35°C to +105°C constant
- Supplied as a pair



# **Cable Cleats**

## **Aluminium Claw Cleats**

- Suitable for use with cables from 10 to 51mm in diameter
- Plain finish for indoor dry normal industrial use or outdoor unpolluted areas
- Operating temperature: -60°C to +100°C
- Can be stacked to a maximum of 3 on one fixing





#### **Method of Fixing**

In all applications the cleats should be mounted on suitable fixings.

	Cable & Cle	at Selection				Cleat Details			
	Cable Diame	eter A in mm		Dimensio	ons in mm		Approx. Weight	SWL (FOS 3) kg	ctual Circu
Part No.	Min	Мах	В	С	D	E	(g)		Stud Size
ACC10-13	10	13	21	38	46	16	60	150	M10
ACC13-16	13	16	36	44	43	16	50	148	M10
ACC16-19	16	19	38	48	43	18	60	121	M10
ACC19-22	19	22	38	50	43	18	70	112	M10
ACC22-25	22	25	40	53	43	20	80	95	M10
ACC25-32	25	32	44	59	43	24	90	85	M10
ACC32-38	32	38	50	65	43	27	110	83	M10
ACC38-44	38	44	56	71	43	30	120	60	M10
ACC44-51	44	51	63	78	43	33.5	150	62	M10

Sold in pairs

SWL: Safe Working Load. FOS 3: Values include a factor of safety: x3



To keep up to date with new products and special offers go online at

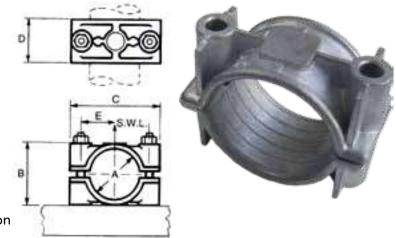
www.swaonline.co.uk



# **Cable Cleats**

## **Aluminium Two Bolt Cleats**

- Suitable for use with cables from 51 mm to 114mm in diameter
- Plain finish for indoor dry normal industrial use or outdoor unpolluted areas
- Operating temperature: -60°C to +100°C
- Can be double stacked on common fixings



#### **Method of Fixing**

In all applications the cleats should be mounted on suitable fixings.

	Cable & Cle	at Selection					Cleat Details		
	Cable Diame	eter A in mm		Dimensio	ons in mm		Approx. Weight	SWL (FOS 3) kg	Stud Size
Part No.	Min	Мах	В	С	D	E	(g)	SWL (FUS 5) Kg	Stud Size
ATC51-57	51	57	68	96	49	38	230	408	M10
ATC57-64	57	64	75	96	49	38	240	665	M10
ATC64-70	64	70	84	134	64	57	410	622	M10
ATC70-76	70	76	90	134	64	57	400	617	M10
ATC76-83	76	83	96	142	64	57	410	600	M12
ATC83-89	83	89	102	142	64	57	490	600	M12
ATC89-95	89	95	114	154	76	63	650	600	M12
ATC95-101	95	101	120	154	76	63	650	600	M12
ATC101-108	101	108	134	169	76	70	900	600	M12
ATC108-114	108	114	140	169	76	70	900	600	M12

Sold in pairs

SWL: Safe Working Load. FOS 3: Values include a factor of safety: x3

To see a video explaining techniques and best practice scan the QR code





# **Cable Cleats**

## **Trefoil Cleats – Aluminium Single Bolt**

- Suitable for use with cables from 24 to 76mm in diameter
- Supplied complete with top fastening
- Plain finish for indoor dry normal industrial use or outdoor unpolluted areas
- Operating temperature: -60°C to +100°C

These cleats are suitable for use at a maximum fault level of 30 kA RMS.

Recommended maximum spacings: Straight runs 900mm Vertical bends 300mm Horizontal bends on each support with, if necessary, intermediate unanchored cleats to limit restraint spacing to 300mm.



#### **Method of Fixing**

In all applications the cleats should be mounted on one M10 fixing as appropriate.

It is essential that they are secured to supports capable of withstanding the prospective short circuit forces.

	Cable Diam	neter in mm		Cable Dian	neter in mm		Cable Dian	neter in mr
Part No.	Min	Мах	Part No.	Min	Max	Part No.	Min	Мах
ATFC24-25	24	25	ATFC41-43	41	43	ATFC59-60	59	60
ATFC25-27	25	27	ATFC43-44	43	44	ATFC60-62	60	62
ATFC27-28	27	28	ATFC44-46	44	46	ATFC62-64	62	64
ATFC28-30	28	30	ATFC46-48	46	48	ATFC64-65	64	65
ATFC30-32	30	32	ATFC48-49	48	49	ATFC65-67	65	67
ATFC32-34	32	34	ATFC49-51	49	51	ATFC67-68	67	68
ATFC34-35	34	35	ATFC51-53	51	53	ATFC68-70	68	70
ATFC35-36	35	36	ATFC53-55	53	55	ATFC70-72	70	72
ATFC36-38	36	38	ATFC54-56	54	56	ATFC72-73	72	73
ATFC38-39	38	39	ATFC56-57	56	57	ATFC73-74	73	74
ATFC40-41	40	41	ATFC57-59	57	59	ATFC74-76	74	76

Sold in eaches



# **Fixing Band**

## **All Round Fixing Band**

Versatile all-round band with hidden inner strength. Pre-drilled, no wastage, choice to suit all environments.



#### **10 Metre Coil Size**

#### Specification for Plain, Galvanised or Coated Band

Part No.	Width (mm)	Colour/Finish	Max. Working Load (kg)	Thickness (mm)	Fixing Hole Dia. (mm)
ARB12/BL	12mm	Black	185	0.9	5
ARB12/WH	12mm	White	185	0.9	5
ARB12/RED	12mm	Red	185	0.9	5
ARB12/GA	12mm	Galvanised	185	0.9	5
ARB12/C	12mm	Copper	185	0.9	5
ARB12/AL	12mm	Aluminium	185	0.9	5
ARB17/BL	17mm	Black	260	0.9	7
ARB17/WH	17mm	White	260	0.9	7
ARB17/RED	17mm	Red	260	0.9	7
ARB17/GA	17mm	Galvanised	260	0.9	7
ARB17/C	17mm	Copper	260	0.9	7
ARB17/AL	17mm	Aluminium	260	0.9	7

LSF coated available on request (subject to M.O.Q).



112 CALL **01453 844 333** OR EMAIL **sales@swaonline.co.uk** 





# **Heatshrink & insulation**

- Heatshrink 113-121
- Insulation sleeving 122-123



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

# **Heatshrink & insulation**

# Heatshrink

#### **Standard Grade Polyolefin Heatshrink**

#### 2:1 Shrink Ratio

SG – Standard Grade Polyolefin, 2:1 shrink ratio, shrink with hot airgun or naked flame, flexible, excellent insulation properties, easily printed on. Without adhesive.

#### Application

SG is a flexible, flame-retardant heat shrinkable polyolefin tubing suitable for a wide range of applications such as insulation, marking, strain relief.

#### **Specifications**

- UL224 125°C 600V VW-1
- CSA C22.2 No. 198 125°C 600V
- RoHS Compliant





#### **Shrinking Properties**

- Radial shrinkage: 50% min
- Longitudinal shrinkage: 5% max
- Tubing has ability to shrink at comparatively low temperatures of 100°C
- 2:1 shrink ratio
- Operating temperature: -55°C to +125°C
- Self-extinguishing

#### **Standard Sizes**

	Dimensions in mm						
			Inside D	iameter	Wall Th	ickness	
Part No.	Size	'Layflat' (nominal)	As Supplied (average)	After Recovery (maximum)	As Supplied (nominal)	After Recovery (maximum)	Reel Length in m
SG1.2*	1.2	-	1.4	0.60	0.20	0.36	200
SG1.6*	1.6	-	2.0	0.75	0.20	0.44	200
SG2.4*	2.4	-	2.5	1.00	0.20	0.44	100
SG3.2*	3.2	5	3.4	1.50	0.25	0.44	100
SG4.8*	4.8	8	5.0	2.25	0.25	0.56	100
SG6.4*	6.4	11	6.5	3.00	0.25	0.56	100
SG9.5*	9.5	17	9.8	4.50	0.25	0.56	100
SG12.7*	12.7	21	12.5	6.00	0.25	0.56	100
SG19*	19.1	31	19.3	9.00	0.35	0.77	50
SG25*	25.4	44	25.5	12.5	0.45	0.87	50
SG38*	38.0	60	39.0	19.0	0.50	0.97	50
SG50*	50.0	83	51.0	25.0	0.50	0.97	50
SG75*	75.0	128	76.2	38.1	0.50	0.97	50
SG100*	100.0	160	101.6	50.8	0.50	0.97	50

\*Suffix colour required.

Colours available: Black, blue, yellow, red, white, clear, brown, grey - other colours on request.

Sold on reels or cut to size.

Available in cut lengths.

Larger sizes available (subject to M.O.Q).

Wall thickness will be less if tubing recovery is restricted during shrinkage.

For Green/Yellow – refer to page 114.



# Heatshrink

### **Sizing Chart Guide**

#### **Standard Grade Polyolefin Heatshrink** to cover 6491X / 6181Y Type Cable.

Cable Size (mm²)	6491X	6181Y
1.5	SG4.8	SG64
2.5	SG4.8	SG64
4.0	SG6.4	SG95
6.0	SG6.4	SG95
10	SG9.5	SG12
16	SG9.5	SG12
25	SG12	SG19
35	SG12	SG19
50	SG19	SG19
70	SG19	SG25
95	SG19	SG25
120	SG25	SG25
150	SG25	SG38
185	SG25	SG38



Cable Size (mm <sup>2</sup> )	6491X	6181Y
240	SG38	SG38
300	SG38	SG38
400	SG38	SG50
500	SG50	SG50
630	SG50	SG50

## Standard Grade Polyolefin (green/yellow)

Green and yellow striped, flexible polyolefin sleeving.

#### Application

SG-G/Y is a general purpose, flexible polyolefin tubing for a wide range of applications such as insulation, strain relief, light-duty harnessing or where the international electrical ground designation is intended.

#### Features

Shrink ratio: 2:1

UL224 (Reference standard)



Dimensions in mm							
	li - di - di	Inside D	liameter	Wall Th	ickness		
Part No.	'Layflat' (nominal)	As Supplied (average)	After Recovery (maximum)	As Supplied (nominal)	After Recovery (maximum)	Reel Sizes in m	
SG3.2 G/Y	5	3.4	1.5	0.18	0.40	200	
SG4.8 G/Y	8	5.0	2.3	0.25	0.50	200	
SG6.4 G/Y	11	6.5	3.0	0.28	0.55	100	
SG9.5 G/Y	17	9.5	4.5	0.30	0.60	100	
SG12.7 G/Y	21	12.5	6.0	0.30	0.65	100	
SG19 G/Y	31	19.0	9.0	0.40	0.80	50	
SG25 G/Y	44	26.0	12.5	0.55	1.00	50	
SG38 G/Y	60	36.5	17.5	0.55	1.15	50	
SG50 G/Y	83	51.0	25.0	0.55	1.20	25	
SG75 G/Y	128	75.0	45.0	0.75	1.90	25	

Available in cut lengths



# **Heatshrink & insulation**

# **Heatshrink**

#### **Heatshrink Packs**

Shrink ratio: 2:1 Standard Grade Polyolefin.



<b>Dual Wall</b>	(Adhesive	Lined)	Poly	olefin
Heatshrink	c Packs			

Shrink ratio: 3:1

	inte	IIIdl		
Part No.	Original Size (mm)	Shrinks	Length	
SP4EU	4.8	2.4	250mm x 5 Cols x 3 Lgths	
SP6EU	6.4	3.0	250mm x 5 Cols x 3 Lgths	
SP9EU	9.5	4.8	250mm x 5 Cols x 3 Lgths	
SP12EU	12.7	6.0	250mm x 5 Cols x 3 Lgths	
SP19EU	19.0	9.0	250mm x 5 Cols x 2 Lgths	
SP25EU	25.0	12.0	250mm x 5 Cols x 2 Lgths	
SP38EU	38.0	19.0	250mm x 5 Cols x 2 Lgths	

SP EU packs contain 5 colours – Black, Blue, Brown, Green/Yellow, and Grey.

Part No.	Size in mm	Shrinks to	Length
SPDW6	6.4	2.2	250mm x 15 Lgths
SPDW12	12.7	4.2	250mm x 10 Lgths
SPDW25	25.0	8.5	250mm x 5 Lgths

Colour: Black

10v/240v hot air guns available.

HAG110 (110v) HAG240 (240v) See page 179.





#### **Handi-Box**

#### Shrink ratio: 2:1

Standard Grade Polyolefin.

For small quantities, an easy way of buying an assortment of coloured standard grade heatshrink incorporating colours - Red, Yellow, Blue, Green/Yellow, Black, Grey, White, Clear and Brown.

	Internal Diameter in mm		Wall Thick	ness in mm	
Part No.*	As Supplied Min	After Recovery Max	As Supplied Min	After Recovery Max	Box Quantity (M)
SG3.2*-HB	3.2	1.30	0.18	0.38	15
SG4.8*-HB	4.8	2.30	0.25	0.50	10
SG6.4*-HB	6.4	3.0	0.28	0.55	10
SG9.5*-HB	9.5	4.5	0.30	0.60	10
SG12.7*-HB	12.7	6.0	0.30	0.60	10
SG19*-HB	19.0	9.0	0.40	0.80	5
SG25*-HB	25.0	12.0	0.55	0.90	5

\*Suffix colour required.

Colours available: Black, blue, yellow, red, white, clear, brown, grey - other colours on request.



# Heatshrink

## **Standard Grade & Dual Wall Polyolefin**

**Shrink Ratio** 

Standard Colours **3:1** Green/Yellow **2:1** Supplied boxed in 1m lengths

Part No.	Description	PSC/CTN
SG6CTN-BLK	H/S Carton 6.4mm Black	50
SG6CTN-BLU	H/S Carton 6.4mm Blue	50
SG6CTN-BRO	H/S Carton 6.4mm Brown	50
SG6CTN-G/Y	H/S Carton 6.4mm Green/Yellow	50
SG6CTN-GREY	H/S Carton 6.4mm Grey	50
DW6CTN	Dual wall adhesive lined heatshrink 6.4mm (Black)	50
SG12CTN-BLK	H/S Carton 12.7mm Black	20
SG12CTN-BLU	H/S Carton 12.7mm Blue	20
SG12CTN-BRO	H/S Carton 12.7mm Brown	20
SG12CTN-G/Y	H/S Carton 12.7mm Green/Yellow	20
SG12CTN-GREY	H/S Carton 12.7mm Grey	20
DW12CTN	Dual wall adhesive lined heatshrink 12.7mm (Black)	20
SG19CTN-BLK	H/S Carton 19mm Black	10
SG19CTN-BLU	H/S Carton 19mm Blue	10
SG19CTN-BRO	H/S Carton 19mm Brown	10
SG19CTN-G/Y	H/S Carton 19mm Green/Yellow	10
SG19CTN-GREY	H/S Carton 19mm Grey	10
DW19CTN	Dual wall adhesive lined heatshrink 19mm (Black)	10
SG25CTN-BLK	H/S Carton 25.4mm Black	10
SG25CTN-BLU	H/S Carton 25.4mm Blue	10
SG25CTN-BRO	H/S Carton 25.4mm Brown	10
SG25CTN-G/Y	H/S Carton 25.4mm Green/Yellow	10
SG25CTN-GREY	H/S Carton 25.4mm Grey	10
DW25CTN	Dual wall adhesive lined heatshrink 25mm (Black)	10

Display stand available ref: HSM15 (stand only)



All heatshrink sleeving supplied in carton quantities only

110v/240v hot air guns available.





116 CALL **01453 844 333** OR EMAIL **sales@swaonline.co.uk** 

# **Heatshrink & insulation**

# Heatshrink

## **Cable Repair Sleeve – Adhesive Lined**

#### Application

Quick and simple to use cable repair sleeve. Thermoplastic adhesive.

#### Shrink ratio: 3:1

#### Features

- Medium wall
- Halogen free
- Internal pressure max. 1.5 bar
- With hot melt adhesive
- High tensile strength
- Resistant to cold flow

- Very good chemical and electrical properties
- UV resistant
- Non-corrosive
- Minimum shrink temp: 125°C
- Operating temp: -40°C to +120°C
- Colour: black

	Dimensions in mm						
Part No.	Max.	Length (M)					
SRMAHV28-10	28	10	2.3	1.0			
SRMAHV43-12	43	12	3.4	1.5			
SRMAHV72-18	72	18	3.4	1.5			
SRMAHV93-26	93	26	3.4	1.5			
SRMAHV115-30	115	30	2.3	1.5			
SRMAHV125-32	125	32	2.3	1.5			



## 110v/240v hot air guns available.

HAG110 (110v) HAG240 (240v) See page 179.



#### **Dual Wall Adhesive Lined Tubing**

#### Shrink ratio: 3:1

#### Application

DW is a general purpose, flexible polyolefin tubing with an adhesive liner that will melt and flow to seal and encapsulate the inner components offering environmental protection. Few sizes cover a wide range of diameters and this tubing will accommodate awkward irregular shapes.

# ROHS

#### **Standard Sizes**

	Inside Diameter in mm		Wall Thick	Wall Thickness in mm			
Part No.	As Supplied (average)			After Recovery (maximum)	Supplied Length (M)		
<b>DW48</b>	4.8	1.6	0.48	1.10	1.2		
DW64	6.4	2.2	0.50	1.20	1.2		
DW95	9.5	3.2	0.55	1.45	1.2		
DW12	12.7	4.2	0.68	1.70	1.2		
<b>DW19</b>	19.1	6.3	0.76	2.00	1.2		
DW25	25.4	8.5	0.78	2.10	1.2		
DW38	38.0	13.5	0.85	2.40	1.2		

#### Features

- Shrink ratio 3:1
- Minimum shrink temperature: 90°C
- Operating temperature: -55 °C to +125°C
- Flammability: UL VW-1 (outer layer only)
- UL224 (Reference standard)
- RoHS Compliant



# Heatshrink

### **Medium Wall Tubing**

#### Shrink ratio: 3:1

#### Application

Polyolefin sleeving suitable for insulating, pressure and humidity tight sheathings. Suitable for cable joints and terminations.

#### Features

- Medium wall
- Halogen free
- SR2 without hot-melt adhesive
- SRH2 with hot-melt adhesive
- High tensile strength
- Resistant to cold flow
- Very good chemical and electrical properties

-1 to part no. for 1m lengths -2 to part no. for 1.2m lengths

• Non-corrosive

#### • UV resistant

- Minimum shrink temperature: 125°C
- Operating temperature: -40°C to +120°C
- Cross linked polyolefin, free of lead and cadmium
- Colour: black
- RoHS Compliant



## Standard Sizes

Add:

Standard Sizes			Dimensior		
Part No. with Adhesive	Part No. without Adhesive	Size	After Shrinkage	Wall Thickness After Shrinkage	Supplied Length (M)
SRH2-12-3	SR2-12-3	12	3	2.2	1 & 1.2
SRH2-22-6	SR2-22-6	22	6	2.6	1 & 1.2
SRH2-34-7	SR2-34-7	34	7	2.6	1 & 1.2
SRH2-40-12	SR2-40-12	40	12	2.6	1 & 1.2
SRH2-56-16	SR2-56-16	56	16	2.7	1 & 1.2
SRH2-75-22	SR2-75-22	75	22	3.0	1 & 1.2
SRH2-95-26	SR2-95-26	95	26	3.2	1 & 1.2
SRH2-120-34	SR2-120-34	120	34	3.3	1 & 1.2

110v/240v hot air guns available.

HAG110 (110v) HAG240 (240v) See page 179.



To see a video explaining techniques and best practice scan the QR code





# **Heatshrink & insulation**

# Heatshrink

#### **Thick Wall Tubing**

#### Shrink ratio: 3:1

#### Application

Polyolefin sleeving suitable for insulating, pressure and humidity tight sheathings. Suitable for cable joints and terminations.

#### Features

- Thick wall
- Halogen free
- SR3 without hot-melt adhesive
- SRH3 with hot-melt adhesive
- High tensile strength
- Resistant to cold flow
- Very good electrical and chemical properties
- Non-corrosive

# 125°C

UV resistant

- Operating temperature: -40°C to +120°C
- Cross linked polyolefin, free of lead and cadium

• Minimum shrink temperature:

- Colour: black
- RoHS Compliant



#### **Standard Sizes**

		Dimension			
Part No. with Adhesive	Part No. without Adhesive	Size	After Shrinkage	Wall Thickness After Shrinkage	Supplied Length (M)
SRH3-12-3	N/A	12	3	2.6	1 & 1.2
SRH3-22-6	SR3-22-6	22	6	2.7	1 & 1.2
SRH3-33-8	SR3-33-8	33	8	4.0	1 & 1.2
SRH3-45-12	SR3-45-12	45	12	4.4	1 & 1.2
SRH3-55-15	SR3-55-15	55	15	4.4	1 & 1.2
SRH3-75-20	SR3-75-20	75	20	4.5	1 & 1.2
SRH3-92-25	SR3-92-25	92	25	4.6	1 & 1.2
SRH3-130-34	SR3-130-34	130	34	4.8	1 & 1.2

110v/240v hot air guns available.

HAG110 (110v) HAG240 (240v) See page 179.



#### Add:

-1 to part no. for 1m lengths-2 to part no. for 1.2m lengths



To keep up to date with **new products** and **special offers** go online at

www.swaonline.co.uk



# Heatshrink

## **Heatshrink Spreader Caps**

#### Application

Spreader caps are designed for the insulation and pressure proof sealing of cable crutches and provide resistance to abrasion, weathering and chemical attack. Shrink parts must be selected about 5mm larger than the cable diameter.

#### Features

- Halogen free
- With hot-melt adhesive to prevent moisture and contaminants ingress
- Pressure and humidity proof
- Outstanding mechanical, chemical and electrical properties
- UV resistant

- Minimum shrink temperature: 125°C
- Operating temperature: -30°C to +135°C
- Cross linked polyolefin, free of lead, cadmium and halogen
- Unlimited storage life
- Colour: black
- RoHS Compliant

Standard Sizes	Dimensions in mm						
Part No.	No. of Cores	O.D of Core	I.D of Core	Length of Cap	Length of Leg	Wall Thickness After Shrinkage	
HSC2-30-15	2	30	15	65	22	1.5	
HSC2-50-12	2	50	12	85	28	3.0	
HSC2-87-43	2	87	43	95	25	3.0	
HSC3-25-9	3	25	9	45	30	2.5	
HSC3-55-31	3	55	31	115	30	3.0	
HSC3-75-28	3	75	28	145	35	4.0	
HSC3-110-35	3	110	35	145	35	4.0	
HSC4-28-9	4	28	9	50	15	2.7	
HSC4-35-12	4	35	12	75	15	3.0	
HSC4-47-23	4	47	23	110	30	4.1	
HSC4-60-23	4	60	23	125	35	4.1	
HSC4-78-36	4	78	36	145	35	4.0	



110v/240v hot air guns available.

HAG110 (110v) HAG240 (240v) See page 179.





120 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk

# **Heatshrink & insulation**

# Heatshrink

### **Heatshrink End Caps**

#### Application

Cable end caps are designed to seal the end of cables and protect them against the ingress of moisture and contamination. They can provide pressure and humidity proof sealing of cables and conduit.

#### Features

- With hot-melt adhesive to prevent moisture and contamination ingress
- Pressure and humidity proof
- Outstanding mechanical, chemical and electrical properties
- UV resistant

Standard Sizes

• Minimum shrink temp: 125°C

- Operating temp: -30°C to +70°C
- Cross linked polymer, free of lead, cadmium and halogen
- Unlimited storage life
- Colour: black
- RoHS Compliant
- Internal pressure up to 0.05 MPa



Stanuaru Sizes	Dimensions in mm						
Part No.	Internal Dia. Before Shrinkage	Max Dia. After Shrinkage	Length of Cap	Wall Thickness After Shrinkage			
HEC10-4	14	5	40	2.0			
HEC16-6	16	6	45	2.5			
HEC25-9	24	8	65	2.5			
HEC26-11	26	11	65	2.8			
HEC40-17	42	15	105	2.8			
HEC57-22	55	25	105	4.2			
HEC75-32	75	34	160	3.5			
HEC105-45	105	45	160	3.5			
HEC148-57	145	59	190	4.2			
HEC158-63	158	58	190	4.2			

110v/240v hot air guns available.





# **Insulation sleeving**

#### **PVC Sleeving**

PVC sleeving is supplied in a wide range of sizes and colours. In addition to the size range shown we can supply alternative diameters and wall thickness to meet particular applications as required. A versatile material in common use ideal for cable or harnessing covering.

- Operating temp: -20°C to +70°C
- Insulation resistance: 10<sup>10</sup> Ohm/cm
- Dielectric strength: 20kV/mm
- Tensile strength: 15MPa
- Elongation at break: 220%
- Hardness: BSS20-30
- Flammability: Self-extinguishing
- RoHS compliant

Hank Part No.	Reel Part No.	Internal Diameter (mm)	Nominal Wall Thickness (mm)	Coil Size (M)
PVC1.5*	N/A	1.5	0.5	100
PVC2*	PVC2*-REEL	2.0	0.5	100
PVC3*	PVC3*-REEL	3.0	0.5	100
PVC4*	PVC4*-REEL	4.0	0.5	100
PVC5*	N/A	5.0	0.5	100
PVC6*	N/A	6.0	0.5	100
PVC8*	N/A	8.0	0.5	100
PVC10*	N/A	10.0	0.5	100
PVC12*	N/A	12.0	0.5	100

#### **PVC Sleeving 5 metre Packs**

3mm Internal Diameter	4mm Internal Diameter	6mm Internal Diameter	Colour
BLK3-P5M	BLK4-P5M	BLK6-P5M	Black
BLU3-P5M	BLU4-P5M	BLU6-P5M	Blue
BR3-P5M	BR4-P5M	BR6-P5M	Brown
GREY3-P5M	GREY4-P5M	GREY6-P5M	Grey
RED3-P5M	RED4-P5M	RED6-P5M	Red
GY3-P5M	GY4-P5M	GY6-P5M	Green/Yellow

#### **SmartyPak™**

A handy drum with popular colours of PVC sleeving.

- Operating temp: -20°C to +70°C
- Insulation resistance: 10<sup>10</sup> Ohm/cm
- Dielectric strength: 20kV/mm
- Tensile strength: 15MPa
- Elongation at break: 220%
- Hardness: BSS20-30
- Flammability: Self-extinguishing
- RoHS compliant

Part No.	Internal dia. (mm)
PVC2-SP	2.0
PVC3-SP	3.0
PVC4-SP	4.0

Supplied length: 60m – Green / Yellow 20m – Brown 20m – Blue



\*Suffix Part No. with the colour required e.g. green/yellow = PVC3G/Y Standard colours: black (BLK), red (RED), blue (BLU), white (WHI), green/ yellow (G/Y), brown (BRO), yellow (YEL) and grey (GRY). Other sizes and colours available may

be subject to minimum order- green, violet, orange, pink and clear.







## 122 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk

# **Heatshrink & insulation**

# **Insulation sleeving**

### **Heat Resistant Sleeving**

Acrylglass is a saturated acrylic braided glass sleeving designed for thermal protection of hose, pipes and cable assembles. The braided tubular glass reinforced sleeving has a construction that allows a degree of expansion and is manufactured from 'E' glass yarn.

The glass sleeve is coated with an acrylic resin, which is solvent free and provides a high operating temperature and resistance to automotive related and other fluids.

#### Application

Thermal protection of cables, wires – low voltage

Applications: automotive wiring, domestic appliances, class F induction motors, winding leads out, joints 1kV.

#### **Technical Data**

Flammability: Non-burning. Glass yarns are incombustible.

Operating temperature: 155°C

Heat shock: (4 hours at 155°C) no dripping or flowing Electric strength at 20°C: 1.0kV/1 min. IEC 684-2

Part No.	Nominal Bore (mm)	Wall Thickness (mm)	Standard Coil Length (M)
HRS4	4.0	0.4	200
HRS6	6.0	0.5	200
HRS8	8.0	0.8	100
HRS10	10.0	0.8	100
HRS12	12.0	0.9	100
HRS16	16.0	0.9	50

Larger sizes available on request (subject to M.O.Q) Colours: up to HRS6 – black (B), red (R), brown (BRO) and blue (BLU) HRS8 and above – black and red only. Sold per metre.

Part No.	Nominal Bore (mm)	Contents
<b>HRS2 PACK</b> 2.0		1m x red sleeve, 1m x black sleeve
HRS4 PACK	4.0	1m x red sleeve, 1m x black sleeve
HRS6 PACK	6.0	1m x red sleeve, 1m x black sleeve
HRS4EU PACK	4.0	1m x blue sleeve, 1m x brown sleeve
HRS6EU PACK	6.0	1m x blue sleeve, 1m x brown sleeve







#### Features

- Self-extinguishing
- Operating temperature: +155°C
- Low thermal conductivity
- Retains mechanical properties at high temperature
- Rot-proof, resistant to fungus
- Resistance to many fluids
- Supplied in coils, reels, cut lengths and packs
- RoHS Compliant

# New to this edition

#### **COP650TOOL-KIT**



#### **Red Roller-Ball Ties**

#### **In-Line Connectors**



### **STORM Cable Glands**

### **Firefly Products**



#### **ALT Cable Glands**



#### **Hazardous Area Plugs**



Page 59

# Page 122

#### **Power Tools**







## **Die Selection Chart**





124 CALL **01453 844 333** OR EMAIL **sales@swaonline.co.uk** 



#### **Selekt-A-Rod**







# **Cable management**

- Spiral wrap binding and cable jacketing 125
  - **Conduit** 126-127



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

# **Spiral Wrap Binding and Cable Jacketing**

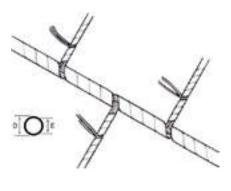
## **Spiral Wrap Binding**

Material: Polyethylene (PE).

**Application**: An easy and economical way of bundling cables and harnesses and providing harness breakouts. Wrap clockwise to apply. **Features**: Flexible and easy to install. Durable, abrasion resistant, reusable with retained spiral strength – won't change shape

after second usage. Temp range: -30°C to +80°C Flammability: UL94HB

		Dimensions in mm					
Part No.	Internal Dia. E	External Dia. D	Bundle Dia.	Coil Size (m)			
SP2B-10 (Black only)	2.3	3.5	2-15	10			
SP4*-10	5.0	6	4 - 50	10			
SP6*-10	7.0	8	6 - 60	10			
SP9*-10	10.2	12	9 - 65	10			
SP12*-10	13.0	15	12 - 70	10			
SP15*-10	16.4	19	15 - 100	10			
SP20*-10	21.0	24	20 - 130	10			



\*Add suffix to part no. to denote colour required: N - natural, B - black

#### Expandable 'Push-back' Cable Jacketing

- Ideal product to support and protect cable harnesses
- Offers superb flexibility
- Available in black or grey

**Fumes toxicity**: Passes CEI 754-1 and CEI 754-2 Halogen free **Fumes opacity**: Passes NF C 20452 (Polymer) **Chemical resistance**: Unaffected by most chemicals

Part No.	Size	Coil Size (m)	
	Normal	Expanded	
PBJ5*-100	5	10	100
PBJ10*-100	10	18	100
PBJ12*-50	12	20	50
PBJ15*-50	15	25	50
PBJ20*-25	20	38	25
PBJ25*-25	25	46	25
PBJ30*-25	30	55	25
PBJ40*-25	40	75	25

\*Suffix part number BLK (black) or GRY (grey).



Properties Monofilament: Polyester – size 0.22mm Melting point: +250°C Limiting oxygen index: 34% Operating temp: -50°C to +150°C

Flame resistance: Passes flame requirement of CEI 332-1 and FMVSS 302 (Type A) 12 according to NF F 16-101



# **Cable management**

# Conduit

## **Flexible Corrugated Conduit**

FCP series corrugated conduit is a very economical solution for a variety of applications due to its high flexibility, compression strength and colour range.

Suitable for embedding into floors and walls, the FCP series is often used for cable assemblies, underfloor wiring and cable tidying. Features:

- Available in polypropylene
- Temperature range from -40°C to +120°C
- LSZH (Low Smoke Zero Halogen), UL resistant
- One piece, quick fitting, easy release, re-usable adaptor c/w locknuts

IP54 rated	IP68 rated					IP68 rated		
Nylon Part No.	Polypropylene Part No.	Trade Size (mm)	Internal Dia. (mm)	External Dia. (mm)	Coil Size (M)	Adaptors	Pack Quantity	Colour
FCN16	FCP16	16.0	12.0	16.0	100	FCA-16PN-PK50	50	Black
FCN20	FCP20	20.0	17.0	20.0	100	FCA-20PN-PK50	50	Black
FCN20	FCP20W	20.0	17.0	20.0	100	FCA-20W-PK50	50	White
FCN25	FCP25	25.0	23.0	25.0	100	FCA-25PN-PK50	50	Black
_	FCP32	32.0	26.0	31.0	100	FCA-32PN-PK25	25	Black

#### Flexible Conduit Contractor Pack

IP54 rated	IP68 rated	IP68 rated	Dimensions in mm		
Nylon Part No.	Polypropylene Black Part No.	Polypropylene White Part No.	Internal Diameter	External Diameter	Pack Contents
FCN20-PK10	FCP20-PK10	FCP20-PK10 WHITE	17.0	20.0	10m + 10 adaptors + 10 locknuts
FCN25-PK10	FCP25-PK10	FCP25-PK10 WHITE	23.0	25.0	10m + 10 adaptors + 10 locknuts
-	FCP32-PK10	-	26.0	31.0	10m + 10 adaptors + 10 locknuts





126 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk



# **Cable management**

# Conduit

#### **Economy Flexible Conduit**

- Polypropylene conduit for running cable protection in electrical machinery or harness wiring
- IP54 rated
- Operating temp -40°C to +95°C

#### Contractor Packs

Packs	Dimensio	Dimensions in mm		<u> </u>		
Part No.	Internal Dia.	External Dia.	Colour	Pack Contents		
FCP20-PK10-E	14	20	Black	10m + 10 adaptors + 10 locknuts		
FCP25-PK10-E	18	25	Black	10m + 10 adaptors + 10 locknuts		
FCP20W-PK10-E	14	20	White	10m + 10 adaptors + 10 locknuts		
FCP25W-PK10-E	18	25	White	10m + 10 adaptors + 10 locknuts		

### **PVC Coated Galvanised Steel Conduit**

- PVC Coated Galvanised Steel Conduit
- Temperature range from -40°C to +70°C
- Conforms to BS EN 61386
- IP68
- Inherent Low Fire hazard

RoHS Compliant					
Part No.	Trade Size	Internal Dia.	External Dia.	Minimum Bent Radius	Coil Size in
FGC20	20	17	20.5	50	50
FGC25	25	21	25	70	50
FGC32	32	26.5	32	95	50

Standard colour: black PVC

## **PVC Coated Galvanised Steel – Contractor Packs**

- For running cable protection in electrical, machinery and harness wiring
- Good mechanical protection
- Ideal for extremely wet or damp conditions, cold storage areas
- Provides protection against most liquids
- Flexible body facilitates easy cornering



- Available in standard coils or contractor packs complete with adaptors
- Temperature rating: -40°C to +70°C
- IP54 rated

Part No.	Internal Dia. (mm)	External Dia. (mm)	Pack Contents
FCPVC/GAL20-PK10	17	21	10m + 10 fixed adaptors + 10 locknuts
FCPVC/GAL25-PK10	21	26	10m + 10 fixed adaptors + 10 locknuts



Standard colour: black PVC



# **Specialised Wiring Accessories Limited**



128 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk





# **Cable jointing**

- LLFA<sup>®</sup> compression tape 129-131
- Cellpack cast-resin technology 132-153
  - Heatshrink cable joint kits 154
    - Mechanical connectors 155-158
  - Cable jointing accessories 159



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

# Cable jointing

# LLFA<sup>®</sup> Compression Tape









#### LLFA® Compression Tape

LLFA<sup>®</sup> Compression Tape can be used as a stand alone product. It seals when applied with "maximum stretch", and gives mechanical protection when applied with "minimum stretch".

#### Fusion

With LLFA® Compression Tape fusion, is almost instantaneous. This is an important factor when splicing or protecting a connection that is subject to high humidity or even submergence.

#### **Electrical Insulation**

Straight and branch joints spliced with LLFA®, from the smallest to the biggest cable size, have undergone European standard testing to BS EN 50393:2006. This jointing method has successfully met all the requirements of the standard to make it the first compression tape jointing solution available in the EU.

#### **Instant Leak Repair**

LLFA® Compression Tape is used to repair leaking pipes without turning off the flow. A punctured hose or pipe tightly wrapped with LLFA® Compression Tape will immediately withstand internal pressure. The pressure will not push between the "fusing layers" because the fusion takes place so quickly (even when wet).

#### **Abrasion Resistance**

LLFA<sup>®</sup> Compression Tape, due to its unique formulation and manufacturing process, is resistant to abrasion and split propagation. Applying a final layer with minimum tension will increase abrasion resistance.

#### **Temperature Stability**

Other products decrease or lose adhesion in extreme cold or humid conditions. LLFA® Compression Tape as a "CLASS H" material will continue to perform at these temperatures. LLFA® does not have to be kept warm in the cold or vice versa.

#### **Environmentally Responsible**

LLFA<sup>®</sup> Compression Tape is environmentally friendly and is replacing solutions that are hazardous. LLFA<sup>®</sup> Compression Tape is also classed as normal waste, and is approved by the Water Regulations Advisory Scheme for use in direct contact with drinking water, both hot and cold. **Dielectric strength**: LLFA®40 = 400VPM (16,000V per 1mm)

**Tensile strength**: > 1200 PSI throughout temp range

Breaking strength: > 15 lbs

Tear resistance: > 125 PSI

Water absorption: << 0.5%

**Temperature range**: -90°C through to 260°C

Elongation: > 325%

**Track resistance**: Prevent electrical conduction along its surface

UV resistance: Highly UV resistant

Ozone resistance: Highly ozone resistant

Durometer hardness: 55 - 65

Adhesion (Fusion): Standard requirement: "Tape shall not unwind more than 1.0 inch after 3 minutes with an attached load of 600g". Result: LLFA® Tape < 1 inch

Acids and alkaline: No negative effect from brief exposure to acid and alkaline and can withstand submersion up to 3 days

**Self extinguishing**: UL standard 94 rating V-0. Tested to IEEE383 and IEEE1212 for flammability – self extinguishes and will not propagate a flame

**Smoke toxicity**: NF X 70 - 100:2006 test results indicate a C.I.T. value of 5.20. BS6853:1999: Annex 8 test results indicate an R-value of 0.37

**Water safety**: BD6920 results indicate that LLFA®Tape is suitable for use in direct contact with drinking water up to 85°C (WRAS Approved)

**Standard compliance**: BS EN 50393:2006, BS6920, ASTM D2240, A-A-59163, ASTM D-149, ASTM D-412, MIL-I-46852, ASTM D2148, ASTM D3767 (LLFA<sup>®</sup> specifications meet other international standards not included in this list)

N.B. Full material safety data sheet available on request



# **Cable jointing**

# LLFA<sup>®</sup> Compression Tape





Industrial

Saving time, this rapidly applied solution is saving money. Multipurpose industrial grade solution used to create high tension seals with exceptionally long life. This is one product that will deliver every time.



Maintenance

Repairs, seals and insulates. One product with many uses. For a multitude of applications, LLFA Tape is an effective yet robust repair that is waterproof, weatherproof, easily applied and endures extreme conditions.



**Electrical** 

Outstanding performance for high or low voltage insulation. Long lasting, water tight and robust. Used for bus bar insulation, cable jointing, connection weather proofing, and

Compression Tape combines ultra-fast, self-fusion with high tensile strength

Approvals: BS EN 50393:2006, BS EN 150 4589-2:1999, BS 6920:2000

- Water tight electrical cable jointing and termination
- Leaking pipe repair without reducing the pressure or turning off the flow
- High voltage insulation
- Highly UV resistant
- Exceptional lifespan even when buried or submersed
- Functions in low or high temperatures

- Non-toxic, safe for use in direct contact with drinking water
- Easily applied, instant repair
- Environmentally responsible, replacing hazardous materials
- Saves time and money

SEAL – stretch to Maximum (300%) FINAL LAYER – Minimum Stretch WRAS APPROVIC

cable repair.



To see a video demonstrating the LLFA tape for **plumbing** situations scan the QR code or go to: www.youtube.com/ watch?v=tiAb4kVYOQA&t=1s

To see a video demonstrating the LLFA tape for **electrical** situations

scan the QR code or go to: www.youtube.com/

watch?v=3efcErF0O4w&t=1s







# LLFA<sup>®</sup> Compression Tape

# ΔFA®

## LLFA<sup>®</sup> Compression Tape

A self-fusing tape ideal to insulate and seal electrical cable splices where high and low temperature stability is needed. In conjunction with LLFA Smooth, it can be used to repair outer sheath of cable, and where moisture, weather and radiation resistance is required.

Mechanically it provides a high tension wrap that creates an enduring seal under extreme environmental conditions. Due to its remarkable properties, it is also used to repair punctured water and air pipes that are subject to pressure and temperature variants.

Part No.	Length (m)	Width (mm)
LLFA 40/1 Black	10.9	25.4
LLFA 40/1 Red	10.9	25.4
LLFA 12/1 Black	3.6	25.4
LLFA 12/1 Red	3.6	25.4



LLFA 12/1

Free dispenser supplied with 10 rolls of LLFA 12/1 (red or black)

### LLFA<sup>®</sup> 1m Dispenser Pack

1m length of LLFA 40 / 1 black / red tape cut into 3 equal lengths.



Single Pack Part No.	Box of 25 Packs Part No.
L40PK1M Black	L40PK1MBLK-BX (Black)
L40PK1M Red	L40PK1MRED-BX (Red)

### LLFA® Smooth

An insulating putty that is soft enough to mould into any cavity or change in diameter, yet consistent enough to hold its shape once applied.

It is primarily used to prepare a ready surface to which LLFA® TAPE can be applied.

Part No.	Pack Wgt (g)	
LSP320	113	





## Cellpack – Cast-resin Technology

#### General

High quality joint components are vital for the safe functioning of a cable network. Cellpack products offer a wide range of cast-resin systems which can be used to make straight-through, transition or branch joints for low voltage or signal cables. You can install with confidence, knowing that over a million Cellpack kits have been installed worldwide over the past forty years. This long track record provides the user with high quality reliable products.

#### A proven system

The resin is pure and not sand filled. Every joint kit is supplied with the following components:

- Mechanically stable, self sealing, UV resistant moulds
- Cast resin and hardener mixed precisely in a two chamber mixing bag
- All the essential parts earthing accessories, funnels, insulation tape & installation instructions

Additional accessories are supplied with certain kits – e.g. splices and mechanical connectors.

See individual catalogue page for details.

#### Your benefit

- Easy, time and cost saving installation
- Shelf-life guarantee of 18 up to 40 months (depending on cast resin type purchased)
- Fully submersible up to 1 metre
- The joint is fully operational two hours after installation. Resin fully cured 24 hours after installation

#### Applications

The Cellpack cast-resin system can be used for the following applications:

- Low voltage cables up to 1 kV
- Telecommunications and signal cables

#### Moulds

HALOGEN

The standard moulds used in the cast resin systems are made of thermoplastic synthetic materials, which provide the following properties:

- Excellent mechanical stability
- Highly resistant to water, watery solutions and diluted acids

The cast resin filled moulds have a shape which permits the cable installations in earth, ducts, and conduits, in water and on cable struts. The moulds are transparent which permit a visual check of the cable connection during pouring.

Cellpack cast resin moulds are shock resistant. The moulds lock into each other due to the snap on mechanism, additional fixing is therefore not necessary. The moulds also help in maintaining stability for softer cast resin (e.g. FG, WG and KG resins)

#### **Cast resin**

The resins can withstand several types of requirements when used for power, telecommunications and signal cable applications. Cellpack manufacture several types of cast resins which have various properties and application possibilities.

CELLPACK

Electrical Products

Most of our resins are delivered with a two chamber mixing bag which permits (after mixing) an easy pouring of the liquid. Prior to pouring, the two components are mixed together. The mould and the poured in resin form a complete self supporting system which protects and insulates the connection against humidity and external factors.

Generally the resins have a limited shelf life. Additionally one must be aware that the resins when mixed have a potting time which has to be respected.



# **Cellpack – Cast-resin Technology**

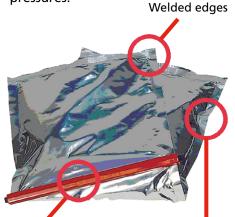
#### **Two Chamber Mixing Bag**

Cellpack's two chamber mixing bags have a parting rail. When opened, the resin and hardener can be mixed together in a closed environment. Hardener and resin can be poured easily together. The system is protected while mixing against external dirt and other foreign materials. The two components are mixed in such a way that very little amounts of non-bound material remains in the system which gives the installer a safe and environment-friendly solution.

It is recommended to handle the mixing bags with care and wear gloves while working with them. After the cast resin has been poured the remaining hardened material can be thrown away in the household waste. Non-hardened material must be disposed of as hazardous waste.

Cellpack bags are made of a three layer laminated aluminium – plastic laminate material. The material is impermeable to gas and water therefore protected against air and humidity.

The bags are welded in several locations to give it mechanical stability and can resist high pressures.



Quick pull off parting rail

proof aluminium Iaminate

Strain and tear

Resin and hardener must be thoroughly mixed



To see a video demonstrating Cellpack scan the QR code





# Cellpack – Cast-resin Technology

### **Cellpack AMX Resin Injection System**



Part No.	Description
AMX265-EGK	Single 265ml cartridge with special mixer nozzle
AMX265-MIXER	Single mixer nozzle only
AMX265EGK-PROFILE	Dispenser pack of 12 cartridges & 24 mixer nozzles

**Re-sealable** 

cap

X-C 265-EG

#### Benefits

Quick

- Multi-use resin
- Guaranteed resin mix every time
  - e on –

HALOGEN

- installation no pre-mixing required
- Mixing and injection done in one easy step
- Fully hardened and ready to use in 1 hour
- Fits a standard cartridge gun
- Re-sealable cartridge for later use, up to 6 months



• IP68 rated





To see a video demonstrating Cellpack scan the QR code



134 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk

Special mixer

nozzle



## Cellpack – Cast-resin Technology

## **Cellpack Straight Cable Joints**

#### **Voltage rating**

1.2 kV

#### Application

Universally suitable to connect low voltage plastic-insulated cables or connectors insulated with PVC, PE, VPE, and EPR.

Suitable for both copper and aluminium conductors.

#### **Application Ranges**

Indoor, outdoor, underground, water (e.g submersible pumps), cable trays.

#### Features

- High electrical insulation values
- Watertight both longitudinally and transversely up to 1 metre
- High mechanical strength
- Good resistance against UV radiation, alkaline earths and chemical agents
- Standard resin storable up to 40 months in the aluminium bag
- Halogen-free polyurethanic cast resin, containing the correct volume ready for mixing within a handy two-chamber mixing bag. No need for skin contact
- Low hardening temperature, fast hardening with no toxic emission during the mixing and casting
- High quality, transparent, shockproof polycarbonate moulds, compact size
- Visible splice position before casting
- Large insertion opening for easy casting
- Extremely simple and fast fitting saves time and costs
- Earthing kit included
- Operational after 2 hours

#### **Tests and Approvals**

- DIN VDE 0278 Part 1 and 2
- DIN VDE 0278 PART 393
- EN 50393 as well as
- CENELEC HD623 (VDE 0278, PART 623)



	Dimensions in mm							
Part No.	L	L D H						
SJK1516	260	47	63					
SJK1	190	36	50					
SJK2	260	47	63					
SJK3	360	55	75					
SJK4	400	70	95					
SJK5	530	100	120					
SJK6	700	125	160					
SJK7	900	150	170					



н

# Cellpack – Cast-resin Technology

## **Cellpack Straight Cable Joints**

#### Selection chart for armoured cables

Straight through joint selection chart Cellpack – Clear Straight-Through Joint Type SJK.

#### Conductors

Copper to copper – compression splices or mechanical connectors.

Copper to aluminium/aluminium to aluminium: mechanical connectors only.





	the de	and a	1	-
	Q	- 1	-	2
	A COLOR			
		test .	- Reserve	
		No. Con		
1 2 2 2 2 2 2		Mar In such That	The state of the s	04

Part No.	Cable Size	No. of cores	Min - Max cable dia.		s Required equired per core)
	(mm²)		(mm)	Compression	or Mechanical
SJK1516	1.5	2	7 - 30	Included	-
SJK1516	1.5	3	7 - 30	Included	-
SJK1516	1.5	4	7 - 30	Included	-
SJK1516	2.5	2	7 - 30	Included	-
SJK1516	2.5	3	7 - 30	Included	-
SJK1516	2.5	4	7 - 30	Included	-
SJK1516	4	2	7 - 30	Included	-
SJK1516	4	3	7 - 30	Included	-
SJK1516	4	4	7 - 30	Included	-
SJK1516	6	2	7 - 30	Included	-
SJK1516	6	3	7 - 30	Included	-
SJK1516	6	4	7 - 30	Included	-
SJK1516	10	2	7 - 30	Included	-
SJK1516	10	3	7 - 30	Included	-
SJK1516	10	4	7 - 30	Included	-
SJK1516	16	2	7 - 30	Included	-
SJK1516	16	3	7 - 30	Included	-
SJK1516	16	4	7 - 30	Included	-

All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included. Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

SJK1516: 1.5, 2.5, 6.0, 10.0, 16.0mm<sup>2</sup> butt splices (compression)



# Cellpack – Cast-resin Technology

### **Cellpack Straight Cable Joints**

#### Selection chart for armoured cables

Straight through joint selection chart Cellpack – Clear Straight-Through Joint Type SJK.

#### Conductors

Copper to copper – compression splices or mechanical connectors.

No. of cores

2

3

4

2

3

4

2

3

4

2

3

4

2

3

4

Copper to aluminium/aluminium to aluminium: mechanical connectors only.



Part No.

SJK1

SJK2

SJK2

SJK2

**Cable Size** 

(mm<sup>2</sup>)

1.5

1.5

1.5

2.5

2.5

2.5

4

4

4

6

6

6

10

10

10



Min - Max

cable dia.

(mm)

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

7 - 30

14 - 30

14 - 30

14 - 30

**Connectors Required** 

(one connector required per core)

Compression or Mechanical

\_

\_

-

\_

\_

-

\_

-

Included

-

-

\_

-

\_



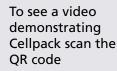
All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included.

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

SJK1: 15 amp strip connectors (mechanical)
<b>SJK2:</b> 6, 10, 16mm <sup>2</sup> butt splices (compression)







# Cellpack – Cast-resin Technology

## **Cellpack Straight Cable Joints**

#### Selection chart for armoured cables

Straight through joint selection chart Cellpack – Clear Straight-Through Joint Type SJK.

#### Conductors

Copper to copper – compression splices or mechanical connectors.

Copper to aluminium/aluminium to aluminium: mechanical connectors only.





Part No.	Cable Size	No. of cores	Min - Max cable dia.		s Required equired per core)
	(mm²)		(mm)	Compression	or Mechanical
SJK2	16	2	14 - 30	Included	-
SJK2	16	3	14 - 30	Included	-
SJK2	16	4	14 - 30	Included	-
SJK2	25	2	14 - 30	Included	-
SJK3	25	3	20 - 37	Included	-
SJK4	25	4	25 - 42	-	P1 Included
SJK3	35	2	20 - 37	Included	-
SJK4	35	3	25 - 42	-	P1 Included
SJK4	35	4	25 - 42	-	P1 Included
SJK3	50	2	20 - 37	Included	-
SJK4	50	3	25 - 42	50BS*	-
SJK4	50	4	25 - 42	50BS*	-

#### **Copper to Aluminium / Aluminium to Alumimium**

Part No.	Cable Size (mm²)	No. of cores		Connectors Required (one connector required per co	
			(mm)	Compression	or Mechanical
SJK5S	50	2	25 - 42	n/a	UM1*
SJK5	50	3	33 - 55	n/a	UM1*
SJK5	50	4	33 - 55	n/a	UM1*

SJK2: 6, 10, 16mm<sup>2</sup> butt splices (compression)SJK3: 16, 25, 35mm<sup>2</sup> butt splices (compression)SJK4: P1 connectors (mechanical)



All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included up to 35mm<sup>2</sup>.

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

\*Where not included – connectors sold separately



# Cellpack – Cast-resin Technology

### **Cellpack Straight Cable Joints**

#### Selection chart for armoured cables

Straight through joint selection chart Cellpack – Clear Straight-Through Joint Type SJK.

#### Conductors

Copper to copper – compression splices or mechanical connectors.

Copper to aluminium/aluminium to aluminium: mechanical connectors only.



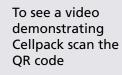


Part No.	Cable Size	No. of cores	Min - Max cable dia.		s Required equired per core)
	(mm²)		(mm)	Compression or Mechanica	
SJK4	70	2	25 - 42	70BS*	-
SJK5S	70	2	33 - 55	-	UM1*
SJK5	70	3	33 - 55	70BS*	UM1*
SJK5	70	4	33 - 55	70BS*	UM1*
SJK4	95	2	25 - 42	95BS*	UM1*
SJK5	95	3	33 - 55	95BS*	UM1*
SJK5	95	4	33 - 55	95BS*	-
SJK6S	95	4	45 - 74	-	UM1*



Part No.	Cable Size (mm²)	No. of cores	Min - Max cable dia.		s Required equired per core)
	(mm²)		(mm)	Compression	or Mechanical
SJK6S	95	4	45-74	n/a	UM1*

\*Where not included – connectors sold separately







All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Fully submersible up to 1 metre.

Operational after 2 hours, please allow 24 hours to be fully cured.



# Cellpack – Cast-resin Technology

## **Cellpack Straight Cable Joints**

#### Selection chart for armoured cables

Straight through joint selection chart Cellpack – Clear Straight-Through Joint Type SJK.

#### Conductors

Copper to copper – compression splices or mechanical connectors.

Copper to aluminium/aluminium to aluminium: mechanical connectors only.





Part No.	Cable Size	No. of cores	Min - Max cable dia.		s Required equired per core)	
	(mm²)		(mm)	Compression or Mechanical		
SJK5	120	2	33-55	120BS*	UM2*	
SJK5	120	3	33-55	120BS*	UM2*	
SJK6	120	4	45-74	120BS*	UM2*	
SJK5	150	2	33-55	150BS*	UM2*	
SJK6	150	3	45-74	150BS*	UM2*	
SJK6	150	4	45-74	150BS*	UM2*	
SJK5	185	2	33-55	185BS*	-	
SJK6S	185	2	45-74	-	UM3*	
SJK6	185	3	45-74	185BS*	UM3*	
SJK6	185	4	45-74	185BS*	-	
SJK7S	185	4	50-95	-	UM3*	
SJK6	240	2	45-74	240BS*	UM3*	
SJK6	240	3	45-74	240BS*	UM3*	
SJK7	240	4	50-95	240BS*	UM3*	
SJK6	300	2	45-74	300BS*	UM3*	
SJK7	300	3	50-95	300BS*	UM3*	
SJK7	300	4	50-95	300BS*	UM3*	
SJK7	400	2	50-95	400BS*	MF1/4*	
SJK7	400	3	50-95	400BS*	MF1/4*	
SJK7	400	4	50-95	400BS*	MF1/4*	



All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

\*Where not included – connectors sold separately



# Cellpack – Cast-resin Technology

### **Multi-Core Cables Copper Conductors**

#### Selection chart for armoured cables

For copper and aluminium cables.

For use with PVC insulated – PVC sheathed armoured cables

Part No.	Nominal area of conductor (mm²)	No. of cores
SJK1	1.5	5
SJK2	1.5	7
SJK2	1.5	10
SJK3	1.5	12
SJK4	1.5	19
SJK4	1.5	22
SJK4	1.5	27
SJK4	1.5	30
SJK4	1.5	40
SJK5	1.5	48

Part No.	Nominal area of conductor (mm²)	No. of cores
SJK1	2.5	5
SJK2	2.5	7
SJK2	2.5	10
SJK3	2.5	12
SJK4	2.5	19
SJK4	2.5	22
SJK4	2.5	27
SJK4	2.5	30
SJK4	2.5	40
SJK5	2.5	48





### **Multi-Pair Cables Copper Conductors**

For copper and aluminium cables.

For use with PVC insulated – PVC sheathed armoured cables

Part No.	Nominal area of conductor (mm²)	No. of cores	Part No.	Nominal area of conductor (mm²)	No. of cores	Part N	o. Nominal area of conductor (mm²)	No. of cores
SJK1	0.5	2	SJK1	0.9	2	SJK1	1.5	2
SJK2	0.5	5	SJK2	0.9	5	SJK2	1.5	5
SJK4	0.5	10	SJK4	0.9	10	SJK4	1.5	10
SJK4	0.5	15	SJK4	0.9	15	SJK4	1.5	15
SJK4	0.5	20	SJK4	0.9	20	SJK4	1.5	20
SJK5	0.5	25	SJK5	0.9	25	SJK5	1.5	25
SJK5	0.5	30	SJK5	0.9	30	SJK5	1.5	30
SJK5	0.5	40	SJK5	0.9	40	SJK5	1.5	40
SJK5	0.5	50	SJK5	0.9	50	SJK5	1.5	50
SJK6	0.5	100	SJK6	0.9	100	SJK6	1.5	100

Cable connectors for both Multi-core and Multi-pair cables supplied only on request. All joints supplied with clear mould, resin pack, earth continuity, gloves and sealing tape.

> To see a video demonstrating Cellpack scan the QR code





# Cellpack – Cast-resin Technology

## Cellpack 'Y' or Branch Cable Joints

#### Voltage rating

1.2 kV

#### Application

Universally suitable to connect low voltage plastic-insulated cables or connectors insulated with PVC, PE, VPE, and EPR. (e.g N(A)YY, NYM, TT) With or without concentric conductor. Suitable for both copper and aluminium conductors.

#### **Application Ranges**

Indoor, outdoor, underground, water (e.g submersible pumps), cable trays.

#### Features

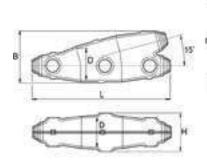
- High electrical insulation values
- Watertight both longitudinally and transversely up to 1 metre
- High mechanical strength
- Good resistance against UV radiation, alkaline earths and chemical agents
- Standard resin storable up to 40 months in the aluminium bag
- Halogen-free polyurethanic cast resin, containing the correct volume ready for mixing within a handy two-chamber mixing bag. No need for skin contact
- Low hardening temperature, fast hardening with no toxic emission during the mixing and casting
- High quality, transparent, shockproof polycarbonate moulds, compact size
- Visible splice position before casting
- Large insertion opening for easy casting
- Extremely simple and fast fitting saves time and costs
- Earthing kit included
- Operational after 2 hours

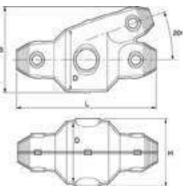
#### **Tests and Approvals**

- DIN VDE 0278 Part 1 and 3
- DIN VDE 0278 PART 393
- EN 50393 as well as
- CENELEC HD623 (VDE 0278, PART 623)

<section-header>

#### **Mould Dimensions**





BJK1, BJK2, BJK3, BJK5, BJK8, BJK9

BJK4, BJK6, BJK7

	Dimensions in mm							
Part No.	L	В	D	Н				
BJK1	185	80	45	55				
BJK2	240	110	60	70				
BJK3	285	120	65	75				
BJK4	240	145	100	110				
BJK5	300	150	110	120				
BJK6	285	170	110	120				
BJK7	335	193	120	130				
BJK8	382	220	140	150				
BJK9	570	275	180	190				





# Cellpack – Cast-resin Technology

### Cellpack 'Y' or Branch Cable Joints

Copper to copper (cut mains).

Copper to aluminium – unless specified separately as detailed below.







Davt No	Mains Cable		Branch	ı Cable	Min - Max ca	ble dia. (mm)	Connectors
Part No.	mm²	Cores	mm²	Cores	Mains	Branch	Connectors
BJK1	1.5	2	1.5	2	8 - 17	8 - 17	P1 Included
BJK1	1.5	3	1.5	3	8 - 17	8 - 17	P1 Included
BJK1	1.5	4	1.5	4	8 - 17	8 - 17	P1 Included
BJK1	2.5	2	2.5	2	8 - 17	8 - 17	P1 Included
BJK1	2.5	3	2.5	3	8 - 17	8 - 17	P1 Included
BJK1	2.5	4	2.5	4	8 - 22	8 - 17	P1 Included
BJK2	4.0	2	4.0	2	9 - 22	8 - 17	P1 Included
BJK2	4.0	3	4.0	3	9 - 22	8 - 17	P1 Included
BJK2	4.0	4	4.0	4	9 - 22	8 - 17	P1 Included
BJK2	6.0	2	6.0	2	9 - 22	8 - 17	P1 Included
BJK2	6.0	3	4.0	3	9 - 22	8 - 17	P1 Included
BJK2	6.0	4	2.5	4	9 - 22	8 - 17	P1 Included
BJK3	10	2	10	2	22 - 39	18 - 35	P1 Included
BJK3	10	3	10	3	22 - 39	18 - 35	P1 Included
BJK3	10	4	10	4	22 - 39	18 - 35	P1 Included

All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included up to 35mm<sup>2</sup>.

Fully submersible up to 1 metre.

Operational after 2 hours, please allow 24 hours to be fully cured.

To see a video demonstrating Cellpack scan the QR code





One connector required per core.

## Cellpack – Cast-resin Technology

## Cellpack 'Y' or Branch Cable Joints

Copper to copper (cut mains).

Copper to aluminium – unless specified separately as detailed below.







Part No.	Mains Cable		Branch	ı Cable	Min - Max ca	ble dia. (mm)	Connectors (Not included unless
Fart NO.	mm²	Cores	mm²	Cores	Mains	Branch	indicated)
BJK3	16	2	16	2	22 - 39	18 - 35	P1 Included
BJK3	16	3	16	3	22 - 39	18 - 35	P1 Included
BJK3	16	4	10	4	22 - 39	18 - 35	P1 Included
BJK4	25	2	25	2	25 - 42	21 - 37	P1 Included
BJK4	25	3	25	3	25 - 42	21 - 37	P1 Included
BJK4	25	4	25	4	25 - 42	21 - 37	P1 Included
BJK4	35	2	25	2	25 - 42	21 - 37	P1 Included
BJK4	35	3	35	3	25 - 42	21 - 37	P1 Included
BJK4	35	4	35	4	30 - 54	20 - 38	P1 Included
BJK4	50	2	50	2	25 - 42	21 - 37	LT50*
BJK4	50	3	50	3	25 - 42	21 - 37	LT50*
BJK5	50	4	50	4	30 - 54	20 - 38	LT50*

#### **Copper to Aluminium / Aluminium to Alumimium Cores**

Part No.		Cable	le Branch Cable		Min - Max ca	Connectors	
Fart NO.	mm²	Cores	mm²	Cores	Mains	Branch	(Not included)
BJK6AS	50	2	50	2	29 - 53	21 - 37	WM1*
BJK7AS	50	3	50	3	32 - 56	25 - 42	WM1*
BJK8AS	50	4	50	4	35 - 62	29 - 52	WM1*

One connector required per core.

All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included up to 35mm<sup>2</sup>.

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

\*Where not included – connectors sold separately



# Cellpack – Cast-resin Technology

### Cellpack 'Y' or Branch Cable Joints

Copper to copper (cut mains).

Copper to aluminium – unless specified separately as detailed below.



100% PUR RESIN



Part No.	Mains Cable		Branch	n Cable	Min - Max ca	ble dia. (mm)	Connectors	
Fart NO.	mm²	Cores	mm²	Cores	Mains	Branch	(Not included)	
BJK5	70	2	70	2	30 - 54	20 - 38	LT70*	
BJK7S	70	3	70	3	32 - 56	25 - 42	LT70*	
BJK7S	70	4	35	4	32 - 56	25 - 42	LT70*	
BJK8	70	4	70	4	35 - 62	29 - 52	LT70*	
BJK6	95	2	95	2	29 - 53	21 - 37	LT95*	
BJK7	95	3	95	3	32 - 56	25 - 42	LT95*	
BJK8	95	4	70	4	32 - 56	25 - 42	LT95*	
BJK8S	95	4	95	4	35 - 62	29 - 52	LT95*	

All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Fully submersible up to 1 metre.

Operational after 2 hours, please allow 24 hours to be fully cured.

#### **Copper to Aluminium / Aluminium to Alumimium Cores**

Davt No	Mains Cable		Branch	ı Cable	Min - Max ca	ble dia. (mm)	Connectors	
Part No.	mm²	Cores	mm²	Cores	Mains	Branch	(Not included)	
BJK6A	70	2	70	2	29 - 53	21 - 37	WM1*	
BJK8A	70	3	70	3	35 - 62	29 - 52	WM1*	
BJK8A	70	4	70	4	35 - 62	29 - 52	WM1*	
BJK7A	95	2	95	2	32 - 56	25 - 42	WM1*	
BJK9AS	95	3	95	3	35 - 62	29 - 52	WM1*	
BJK9AS	95	4	95	4	35 - 62	29 - 52	WM1*	

One connector required per core.

\*Where not included – connectors sold separately

To see a video demonstrating Cellpack scan the QR code





## Cellpack – Cast-resin Technology

## Cellpack 'Y' or Branch Cable Joints

Copper to copper (cut mains).

Copper to aluminium – unless specified separately as detailed below.







Dart No	Mains Cable		Branch Cable		Min - Max ca	Connectors	
Part NO.	mm²	Cores	mm²	Cores	Mains	Branch	(Not included)
BJK8	120	2	120	2	35 - 62	29 - 52	WM2*
BJK9S	120	3	120	3	45 - 90	35 - 80	WM2*
BJK9S	120	4	95	4	45 - 90	35 - 80	WM2*
BJK9	120	4	120	4	45 - 90	35 - 80	WM2*
BJK8S	150	2	70	2	35 - 62	29 - 52	WM2*
BJK9	150	3	150	3	45 - 90	35 - 80	WM2*
BJK9	150	4	150	4	45 - 90	35 - 80	WM2*
BJK8	185	2	185	2	35 - 62	29 - 52	WM2*
BJK9	185	3	185	3	45 - 90	35 - 80	WM2*
BJK9	185	4	185	4	45 - 90	35 - 80	WM2*

One connector required per core. Larger sizes available – P.O.A All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

\*Where not included – connectors sold separately

To see a video demonstrating Cellpack scan the QR code





## Cellpack – Cast-resin Technology

### **Cellpack 'T' Cable Joints**

#### **Voltage rating**

1.2 kV

#### Application

Universally suitable to connect low voltage plasticinsulated cables or connectors insulated with PVC, PE, VPE, and EPR. (e.g N(A)YY, NYM, TT) With or without concentric conductor.

Suitable for both copper and aluminium conductors.

#### **Application Ranges**

Indoor, outdoor, underground, water (e.g submersible pumps), cable trays.

#### Features

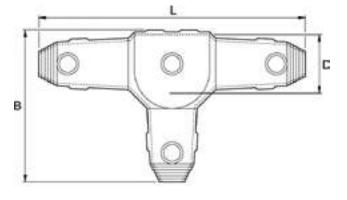
- High electrical insulation values
- Watertight both longitudinally and transversely up to 1 metre
- High mechanical strength
- Good resistance against UV radiation, alkaline earths and chemical agents
- Standard resin storable up to 40 months in the aluminium bag
- Halogen-free polyurethanic cast resin, containing the correct volume ready for mixing within a handy two-chamber mixing bag. No need for skin contact
- Low hardening temperature, fast hardening with no toxic emission during the mixing and casting
- High quality, transparent, shockproof polycarbonate moulds, compact size
- Visible splice position before casting
- Large insertion opening for easy casting
- Extremely simple and fast fitting saves time and costs
- Earthing kit included
- Operational after 2 hours

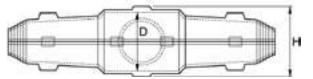
#### **Tests and Approvals**

- DIN VDE 0278 Part 1 and 3
- DIN VDE 0278 PART 393
- EN 50393 as well as
- CENELEC HD623 (VDE 0278, PART 623)



#### **Mould Dimensions**





	Dimensions in mm							
Part No.	L	В	D	н				
T1-EK	240	138	50	60				
T2-EK	267	154	60	70				
T3-EK	354	212	90	100				
T4-EK	432	262	110	125				
TS-EK	550	290	130	155				



# **Cellpack – Cast-resin Technology**

## Cellpack 'T' Cable Joints

Suitable for copper to copper, copper to aluminium, aluminium to aluminium.



Davt No			ble dia. (mm)	Connectors				
Part No.	mm²	Cores	s mm² Cores Mains		Branch	connectors		
T1-EK	1.5	2	1.5	2	22	22	P1 Included	
T1-EK	1.5	3	1.5	3	22	22	P1 Included	
T1-EK	1.5	4	1.5	4	22	22	P1 Included	
T1-EK	2.5	2	2.5	2	22	22	P1 Included	
T1-EK	2.5	3	2.5	3	22	22	P1 Included	
T1-EK	2.5	4	2.5	4	22	22	P1 Included	
T1-EK	4.0	2	4.0	2	22	22	P1 Included	
T1-EK	4.0	3	4.0	3	22	22	P1 Included	
T1-EK	4.0	4	4.0	4	22	22	P1 Included	
T1-EK	6.0	2	6.0	2	22	22	P1 Included	
T1-EK	6.0	3	6.0	3	22	22	P1 Included	
T2-EK	6.0	4	6.0	4	30	30	P1 Included	
T1-EK	10	2	10	2	22	22	P1 Included	
T2-EK	10	3	10	3	30	30	P1 Included	
T2-EK	10	4	10	4	30	30	P1 Included	

All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included up to 35mm<sup>2</sup>.

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

One connector required per core.



# Cellpack – Cast-resin Technology

### **Cellpack 'T' Cable Joints**

Suitable for copper to copper, copper to aluminium, aluminium to aluminium.



Deut Ne	Mains	Mains Cable		ı Cable	Min - Max ca	Connectors		
Part No.	mm²	Cores	mm²	Cores	Mains	Branch	Connectors	
T2-EK	16	2	16	2	30	30	P1 Included	
T2-EK	16	3	16	3	30	30	P1 Included	
T3-EK	16	4	16	4	37	37	P1 Included	
T3-EK	25	2	25	2	37	37	P1 Included	
T3-EK	25	3	25	3	37	37	P1 Included	
T3-EK	25	4	25	4	37	37	P1 Included	
T3-EK	35	2	35	2	37	37	P1 Included	
T3-EK	35	3	35	3	37	37	P1 Included	
T4-EK	35	4	35	4	52	52	P1 Included	
T3-EK	50	2	50	2	37	37	LT70*	
T3-EK	50	3	50	3	37	37	LT70*	
T3-EK	50	4	50	4	37	37	LT70*	
T3-EK	70	2	70	2	37	37	LT70*	
T3-EK	70	3	70	3	37	37	LT70*	
T4-EK	70	4	70	4	52	52	LT70*	
T4-EK	95	2	95	2	52	52	LT95*	
T4-EK	95	3	95	3	52	52	LT95*	
T5-EK	95	4	95	4	62	55	LT95*	
T5-EK	120	2	120	2	62	55	LT120*	
T5-EK	120	3	120	3	62	55	LT120*	
T5-EK	120	4	120	4	62	55	LT120*	

All joints are supplied with:

- Clear mould
- Resin pack
- Earth continuity
- Gloves
- Sealing tape

Cable connectors included up to 35mm<sup>2</sup>.

Fully submersible up to 1 metre. Operational after 2 hours, please allow 24 hours to be fully cured.

\*Where not included – connectors sold separately

To see a video demonstrating Cellpack scan the QR code





One connector required per core.

# Cellpack – Cast-resin Technology

## Cellpack 'YCP' Cable Joints

#### Voltage rating

For cables up to 1.2 kV

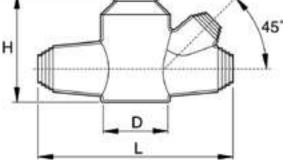
#### Application

Suitable to branch-off single-core cables or wires, e.g wires for cathodic corrosion protection from chemical and electrochemical reactions below surface and water. Pipes, warehouse containers, electric supply lines and other metal constructions are effectively protected against passive corrosion (plastic casings, mastic-glass fibre casings).

#### Features

- High electrical insulation values
- Watertight both longitudinally and transversely up to 1 metre
- High mechanical strength
- Good resistance against UV-radiation, alkaline earths and chemical agents
- Standard resin storable for up to 40 months
- High quality polycarbonate moulds
- Visible splice position before casting
- Extremely simple and fast fitting saving time and cost
- Operational after 2 hours

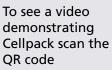




	Dimensions in mm					
Part No.	L	В	D	н		
ҮСР	135	48	44	75		

All joints are supplied with:

- Clear mould
- Resin pack
- Gloves
- Sealing tape







## Cellpack – Cast-resin Technology

## Cast Resin – 2 Component Polyurethane (PUR) Resin

#### Suitable for

- Low-voltage plastic insulated and paper insulated cables rated up to 1 kV
- Telecommunications and signal plastic insulated and paper insulated cables
- Mechanical protection and water-sealing on medium voltage cables.

#### Features

- Halogen-free unfilled two-component polyurethane cast resin
- Developed especially for cable joints
- Excellent flow properties
- No cracks during electrical and mechanical stress
- Good adherence to all cable materials
- Soft-elastic character ensures equalisation of mechanical stresses
- Low hardening temperature
- Fast hardening
- Excellent hydrolytical resistance
- No toxic emission during mixing and casting
- Packed in practical and easy-to-use two chamber bags

#### **Tests and Approvals**

Governmental Material Test Laboratory Darmstadt: DIN VDE 0291

KEMA Netherland: Report on the MAK value, which lies well below the maximum value of 0.01 ppm, allowed by law

#### **Storage Conditions**

At ambient temperatures between  $+15^{\circ}C$  and  $+35^{\circ}C$ 40 months in the aluminium bag

	NE A
	And and a state of the state of
A State	
	ALC: NOT

Part No.	Volume (ml)
EG180	180
EG286	286
EG370	370
EG464	464
EG650	650
EG810	810
EG1150	1150
EG1500	1500
EG1850	1850
EG2000	2000

Full specification available on request. Other volumes, and tins, available on request.



### Cable Joint Kits – Resin/Hardener Sizes

SWA Kit	Resin/Hardener	Pack Quantity	SWA Kit	Resin/Hardener	Pack Quantity
SJK1	EG180 (180ml)	1	BJK1	EG286 (286ml)	1
SJK2	EG370 (370ml)	1	BJK2	EG464 (464ml)	1
SJK3	EG650 (650ml)	1	BJK3	EG810 (810ml)	1
SJK4	EG1150 (1150ml)	1	BJK4	EG1150 (1150ml)	1
SJK5	EG1150 (1150ml)	1	BJK5	EG2000 (2000ml)	1
2762	EG2000 (2000ml)	1	BJK6	EG1150 (1150ml)	1
CIVC	EG1500 (1500ml)	3	BJK7	EG1150 (1150ml)	2
SJK6	EG2000 (2000ml)	1	BJK8	EG1850 (1850ml)	2
קעוס	EG1500 (1500ml)	1	BJK9	EG1850 (1850ml)	6
SJK7	EG2000 (2000ml)	5			



# Cellpack – Cast-resin Technology

## AZ-CG – Universal gel box with connectors

#### The universal gel box combines the advantages of a traditional box with the well-known cast resin Cellpack technology.

Complex connections in a very small volume can be completed with this universal box. The system guarantees a waterproof connection and protection from condensation risks.

#### Contents

250ml two component, two chamber bags hydrocarbon CG resin, box with membrane entries, 5 pole connectors, 12 x cable retaining rings, funnel, emery cloth and fitting instructions.

#### Characteristics

- Practical connection and branch box with 13 membrane entries
- 5 pole connectors 0.5 2.5 mm<sup>2</sup>
- Isocyanate and silicone free
- Not harmful to the environment
- High flexibility due to removable resin
- Translucent before and after curing
- Cable retaining rings for additional stabilisation of the cable
- Withstands long term exposure to moisture
- IP54 box rating

CE

• IP68 when complete with resin



#### Application

- For outdoor and indoor applications (also with high humidity levels)
- Underground

#### Voltage

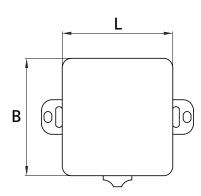
230 / 400 V.

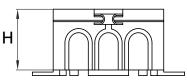
#### Test standards

DIN EN 50393 (corresponds to VDE 0278).

#### Storage conditions / Shelf life

Cast resin up to 24 months.

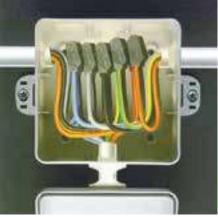


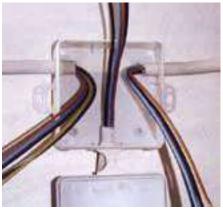


	Dimensions in mm				Unarmoured Cable
Туре	L	L B H Max. cable dia.			Nominal cross section per conductor mm <sup>2</sup>
Universal box 250ml	85 85 45 15			0.5 – 2.5	









CG Resin – see page 153



## Cellpack – Cast-resin Technology

### CG Resin

# Two-component hydrocarbon resin – free of hazardous substances, silicone and isocynate

Cast resin CG is an environmentally-friendly and removable 2-component cold curing casting compound based on hydrocarbon resins which does not require hazardous label acc. to CLP-Regulation (EC) No. 1272/2008. The translucent cast resin allows a visual inspection even after the casting. The connection is accessible at any time by removing the cast resin.

#### Characteristics

- Two-component hydrocarbon cast resin
- In practical and easy-to-use twochamber bags
- Exceptional electrical insulation
- Free of hazardous labelling identification according to the CLP-Regulation (EC) No.1272/2008
- Free of isocyanate and silicon
- Removable
- Translucent before and after curing
- Favourable flow properties
- Low volume shrinkage
- Cold curing (no heat during reaction)
- Halogen free
- No fracturing under electrical stress
- Excellent adhesion to all cable materials

#### Application

- Cable branch-off cabinets
- Connection boxes
- Telecommunications
- Electronic components

#### Note

Due to its soft elastic mechanical properties, which are favourable for removal, it is advised to implement a cable relief, if stresses on the cable are likely to occur.

#### Test standards

DIN EN 60455

Part No. CG143

**CG250** 

**CG730** 

**CG1000** 

**CG2000** 

#### Storage conditions / Shelf life

In aluminium bag 24 months at ambient temperatures between +15°C and +30°C

	Technical data	Value
	Flash point of cast resin component (open cup) Flash point of reactant (open cup)	>200°C >200°C
	Processing time (pot life) 300 ml mixture at 5 °C 23 °C 35 °C	40 minutes 26 minutes 20 minutes
Volume	Density	0.92 g / cm3
143 ml	Mass loss (28 days at 80°C)	< 3.5%
250 ml	Hardness	25 Shore 00
730 ml	Viscosity (23°C)	1100 mPa x s
1000 ml	Operating temperature range	-40°C up to +80°C
2000 ml	Dielectric strength	23 kV / mm

N.B. CG250 is suitable for use with AZ-CG universal box







# **Heatshrink Cable Joint Kits**

## **Heatshrink Cable Joint Kits**

#### Voltage rating: 1 Kv

PVC or XLPE steel wired armoured cable.

Quick and easy to use, immediate backfill, immediate power-up, slim profile- ideal for jointing vertical cables with the advantage of being re-enterable.

Introducing a comprehensive range of SWA straight through heatshrink cable joints for polymeric insulated armoured multi-core cables up to 1 Kv (1.5mm<sup>2</sup> - 300mm<sup>2</sup>).

SWA kits have been manufactured to meet national and international standards.

Part No.	Cable size (mm²)	No. of cores
SMH1	1.5-4	4
SMH2	6-16	4
SMH3	25-50	4
SMH4	70-150	4
SMH5	185-300	4





Heatshrink Cable Joint Kits are submersible up to 40 bar pressure (approx 400m depth).

Conductors not included.

### **Underwater Heatshrink Kits**

Part No.	Description
UJK1	For flexible underwater cable up to 2.5mm <sup>2</sup> – 4 core
UJK2	For flexible underwater cable up to $6$ mm <sup>2</sup> – 4 core
UJK3	For flexible underwater cable 1.5mm <sup>2</sup> - 4mm <sup>2</sup> 4 core
UJK4	For flexible underwater cable $6mm^2 - 10mm^2 - 4$ core
UJK5	For flexible underwater cable $16mm^2 - 25mm^2 - 4$ core

Conductors not included.

See page 118 for technical detail on SRH2 sleeving.



www.swaonline.co.uk

154 CALL **01453 844 333** OR EMAIL **sales@swaonline.co.uk** 



## **Mechanical Connectors**

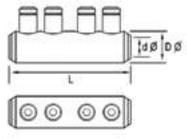
## **Shear-Bolt Splice Connectors**

Wide application range for each connector

- Can be used on copper or aluminium conductors up to 36kV
- Manufactured from aluminium alloy
- Reduces installation time, no need for crimp tools
- Tooling impact driver required for installation



	Dime	nsions	in mm					
Part No.	DØ	dØ	L	No. of Screws	Round (mm²)	Round & Compacted (mm <sup>2</sup> )	Solid Alum. & Copper Cond. (mm²)	
SBS10-95	24	13	65	2	10-95	10-95	10-70	4mm-3/16"
SBS50-240	33	20	126	4	50-185	50-240	50-185	6mm-1/4"
SBS95-300	38	24	140	4	95-300	95-300	95-240	8mm-5/16"



### **Type MF Cable Connectors**

- Mechanical connector for straight through joints up to 11 Kv.
- For stranded 2 and 4 core cables.
- Ideal for jointing cables where naked flame is prohibited i.e. mining or petro-chemical industry.
- Supplied with fitting instructions.

	Core CSA (mm²)						
Part No.	Minimum	Maximum					
MF1/1	50	95					
MF1/2	95	185					
MF1/3	185	300					
MF1/4	400	500					
MF1/5	150	300					

N.B. See MF4 range on page 157





## **Mechanical Connectors**

### **Type UM Cable Connectors**

Designed for straight through mains to accept 3 or 4 core sector shaped stranded conductors incorporating the shear head screw principle for reliable connection. Supplied with fitting instructions.

Supplied complete with brass gauze to prevent dissimilar metal reaction.

#### SECONDARY APPLICATIONS

#### (a) Solid Aluminium Conductors

These connectors can accommodate sector shaped solid aluminium conductors within the ranges specified below. For these connections the pressurepad is normally removed.

	Core CSA (mm²)				
Part No.	Minimum	Maximum			
UM1	35	95			
UM2	95	150			
UM3	185	300			

#### (b) Circular Conductors

These connectors are also suitable for stranded circular conductors to BS EN 60228:2005 in the following ranges.

	Core CSA (mm²)				
	(a)Solid Aluminium (b)Circular Conductors				
Part No.	Minimum	Maximum	Minimum	Maximum	
UM1	70	95	35	95	
UM2	95	150	95	120	
UM3	185	300	120	300	

### **Type WM Cable Connectors**

For copper and aluminium cables.

Mains branch connectors to accept 3 and 4 core sector shaped stranded conductors incorporating the shear head screw principle for reliable connection. Supplied with fitting instructions.

Supplied complete with brass gauze to prevent dissimilar metal reaction.

#### SECONDARY APPLICATIONS

These connectors can accept stranded circular conductors to BS EN 60228:2005 in the main and/or branch sides of the connector in the following ranges.

#### **Stranded Sector Shaped Conductors**

	Core CSA (mm²)				
	Mains Branch				
Part No.	Minimum	Maximum	Minimum	Maximum	
WM1	16*	95	16*	95	
WM2	50	185	50	185	
WM3	120	300	120	300	

#### **Stranded Circular Conductors**

	Core CSA (mm²)				
	Mains Branch				
Part No.	Minimum	Maximum	Minimum	Maximum	
WM1	16*	70	16*	70	
WM2	50	150	50	150	
WM3	120	240	120	240	

\*Conductors below 16mm<sup>2</sup> should be doubled, and if necessary, doubled again to achieve a satisfactory cross sectional area connection.



## **Mechanical Connectors**

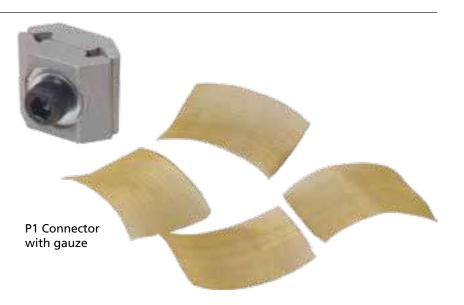
## **Type P Cable Connectors**

For copper and aluminium cables

#### **P1 connectors**

- To suit all types of service cable from 2.5mm<sup>2</sup> to 35mm<sup>2</sup>
- CSA for branch and straight through connectors.
- Supplied complete with brass gauze to prevent dissimilar metal reaction.

Conductors below 6mm<sup>2</sup> should be doubled, and if necessary, doubled again to achieve a satisfactory cross sectional area connection.



### **Type US Cable Connectors**

For copper and aluminium cables

Ideal for connecting stranded circular/sector shaped services to 3 or 4 core stranded sector shaped mains conductors. Supplied with fitting instructions. Contact SWA for technical data.

	Core CSA (mm²)				
	Ма	Service			
Part No.	Minimum	Minimum Maximum			
US1	50	95	35		
US2	120	150	35		
US3	185	300	35		



### **Type MF Cable Connectors**

Designed for straight connections on stranded or solid service cables, made in brass to be suitable for jointing copper/aluminium and sector/ circular conductors.

		Core CS	A (mm²)
Part No.	Туре	Minimum	Maximum
MF4/1	Straight through	6*	16
MF4/2	Straight through	16	50
MF4/3	Moisture blocked	6*	16
MF4/4	Moisture blocked	16	50

\*Conductors below 6mm<sup>2</sup> should be doubled, and if necessary, doubled again to achieve a satisfactory cross sectional area connection.

N.B. See MF1 range on page 155



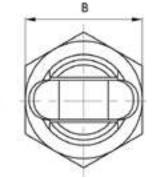
## **Mechanical Connectors**

### **Line Taps**

Material: Brass BS EN 121 63 Finish: Nickel-plated

> ATTACHED JAW WITH HEX NUT





	Conductor Range			Dimensio	ns in mm	
Part No.	Minimum (mm²)	Maximum (mm²)	Body A/F A	Nut A/F B	Width W	Length L
LT610	6	10	10.0	12.6	3.7	7.4
LT10	10	16	12.0	16.0	5.5	8.5
LT16	16	25	14.0	18.0	6.9	9.0
LT25	25	35	15.0	20.0	8.4	11.0
LT35	35	50	18.0	24.0	9.7	12.0
LT50	50	70	20.0	25.0	11.2	14.0
LT70	70	95	22.0	28.0	13.6	18.0
LT95	95	120	25.0	33.0	16.0	24.0
LT120	120	150	28.0	36.0	19.0	30.0
LT150	150	185	32.0	40.0	20.0	34.0

To see a video explaining techniques and best practice scan the QR code



158 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk



## **Cable Jointing Accessories**

### **Underground Marking Tape**

Damaging a buried utility line is an expensive accident which could have serious consequences. ELECTR Installed 300mm above the buried pipe or cable, these tapes provide an early warning to contractors.

Part No.	Length (m)	Width (mm)	Colour	Tape Description
UMT-EL	365	150	Yellow	Electrical Cable Below
UMT-STL	365	150	Yellow	Street Lighting Cable Below
UMT-TEL	365	150	Green	Telephone Cable Below

CAUTION

Other types and languages available to order.

Barrier and Hazard Warning Tape also available. See Tapes and Sealants page 191.

### **Cable Protection Tiles**

Heavy duty, yet lightweight recycled polyethylene cable covers, incorporating a colour printed polyethylene warning tape laminated to the top surface. The environmentally friendly cable tiles should be laid over power cables which require additional protection.

- High impact resistance manufactured to BS 2484
- Free from PVC acid and alkali resistant
- Rot resistant
- Lightweight, meaning low transportation and installation costs
- All cable covers are pre-drilled and supplied with a jointing peg for easy installation. The linear length when joined is approximately 960mm
- Wording 'CAUTION ELECTRIC CABLE BELOW'
- Other texts can be manufactured to order.

Part No.	Length (mm)	Width (mm)	Thickness (mm)
<b>UMCT150</b>	1000	150	6





# Notes

160 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk





Cable handling 161-164



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

# **Cable Handling**

### **Cable Companion™**

The patented Cable Companion<sup>™</sup> solves the problem of cables snagging on the drum whilst unreeling cables.

Its simple but ingenious swinging tension arm keeps cable properly wound on its reel at all times – even when it's being pulled.

The Cable Companion<sup>™</sup> features a sturdy and stable floor-standing frame, but the range also includes a special bracket for clamping the dispenser to joists making it ideal for lofts (single head only).

#### Features

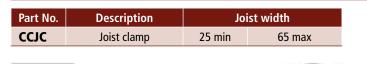
• Sturdy and stable floor standing base with robust metal construction

**CCSMH** Multi-head unit

- Single hand operation
- Quick, easy and hassle free
- Swinging arm keeps cable properly wound during operation
- 360° rotational head pulls cable in any direction or height
- Folds away flat for easy storage and transportation

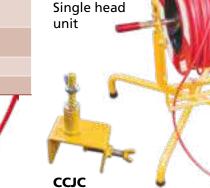


Part No.	Description	Max. drum width mm	Max drum weight capacity kg	Dimensions base width x overall height mm
CCSSH	Cable Companion Stand c/w single head	210	75	710 x 560
ссямн	Cable Companion Stand c/w multi-head	630	75	710 x 560
CCSH	Single drum - head only	210	75	-
ССМН	Multi-drum - head only	630	75	-



Brake prevents

cable over reeling



#### **CCJC** Joist clamp

To see a video demonstration this time-saving product scan the QR code





## **Cable Handling**

SWA screw type cable drum jacks are manufactured from fabricated steel. They are fully approved and test certificates are available upon request.

The spindles, supplied with the jacks, are manufactured from high quality steel bar.

Locking collars can be provided on request, not available to hire.

All cable jacks are safety tested to the 'Lifting Operations & Lifting Equipment (LOLER) regulations 1998'.

### Screw Mechanical Cable Drum Jack Set



Part No.	Capacity/pair (tonne)	Min. Drum Diameter (mm)	Max. Drum Diameter (mm)
CDJ-3	3	1060	1600
CDJ-6	6	1360	1900

Other products also available to hire, see pages 175-178

### **Replacement Spindles**

Part No.	Diameter (mm)	Length (mm)	Weight (kg)	Supplied with
DS-6	50	1800	28	CDJ-3/CDJ-6

## Hydraulic Cable Drum Jacks



Part No.	Capacity/pair (tonne SWL)	Min. Drum Diameter (mm)	Max. Drum Diameter (mm)	
CDJH-3	3	800	2500	
CDJH-6	6	880	3000	

### **Cable Rollers**



Also available to hire, see pages 175-178 Other types and sizes available on request



162 CALL 01453 844 333 OR EMAIL sales@swaonline.co.uk

# **Cable Handling**

### **Cable Drum Rotators**

Ideal for heavy duty cables.

#### CDR2

**Type**: All-steel welded **Finish**: Zinc-plated

**Rollers**: 1 fixed, 1 adjustable and fitted sealed ball bearing



CDR3 Rollers: 2 adjustable, fitted sealed ball bearing Finish: Zinc-plated



Part No.	Drum Weight Max. (kg)	Weight Max. Drum Dia. Max. (kg) (mm)		Drum Width (mm)	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	
CDR2	1500	2400	300	Adjustable	1000	260	120	54/pair	
CDR3	140	520	120	520	650	680	110	11.5	

### **Cable Dispenser**

- Time and cost effective
- Easily folds away for storage



Part No. –	Unit Dimensions-closed (mm)			Unit Dimensions-open (mm)			Max. Carry Weight	Distance between	Weight of Unit
Fart NO.	Width	Height	Length	Width	Height	Length	(kg)	arms (mm)	_ (kg)
CDD1	40	380	760	340	340	760	50	610	2.8





# **Cable Handling**

### Selekt-A-Rod – Cable Pulling Kit

#### SAR-KIT1

- Flexible anti-splinter fibreglass rods
- Breaking strain of 700N
- 10 metre kit supplied in handy tube with 10 x 1M rods
- Kit supplied with a range of accessories
- 6mm diameter rod

### **Cable Socks**

- An efficient method of supporting or pulling cables
- Manufactured from high tensile galvanised steel wire, our range of cable socks are available with single or double-eye for attaching to the pulling rope
- Lace-up cable socks are also available for fitting at midpoint along the cable length
- The standard range covers all cables from 6mm to 115mm overall diameter

CS Type CSD Type CSDS Type

DH-1-2.1.

Part No.						
Single eye	Double eye	Double eye split	Cable Dia. (mm)	Lattice Length (mm)	Overall Length (mm)	Actual Break (tonnes)
CS6-13	CSD6-13	CSDS6-13	6-13	230	305	0.75
CS13-19	CSD13-19	CSDS13-19	13-19	355	430	100
CS19-25	CSD19-25	CSDS19-25	19-25	405	510	2.50
CS25-38	CSD25-38	CSDS25-38	25-38	455	610	3.50
CS38-50	CSD38-50	CSDS38-50	38-50	535	735	5.00
CS50-63	CSD50-63	CSDS50-63	50-63	610	865	5.00
CS63-89	CSD63-89	CSDS63-89	63-89	685	990	6.00
CS89-115	CSD89-115	CSDS89-115	89-115	685	990	7.00

Stainless steel versions available on request





# Tooling

Tool hire solutions	166
Hand ratchet crimping tools	167-169
Hand cutting tools	170
Hand wire strippers / conduit cutters / cable tie tools	171
Impact & data tools	172
Large hand crimping tools	173
Large hand cutting tools	174
Hydraulic crimping tools	175
Hydraulic cutting tools / crimping heads / cutting heads	176
Hydraulic & electric pumps	177
Power tools (battery) / batteries / chargers	178
Mains crimp tools / hot air guns	179
Hexagonal die sets selection chart	180

All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk





FOR FURTHER INFORMATION GO ONLINE AT **www.swaonline.co.uk** 165

## **Tool Hire Solutions**

#### Our philosophy is simple!

## Make hiring equipment easy and more convenient.

All tools offered for hire are regularly serviced and are fully checked, tested and calibrated prior to despatch.

SWA also offer a tool repair, calibration and servicing facility.

Tool hire and repair service registered to BS EN ISO 9001:2015 standard.

#### It's really easy to hire from SWA

All items are usually available for next day delivery (Monday - Friday) anywhere in the UK (am service available at extra cost).

Our hire periods vary from 2 to 7 days (or longer on request) just call our hire team for more information.

All cable jacks, minimum one week hire, are safety tested to the 'Lifting Operations & Lifting Equipment (LOLER) regulations 1998'.

#### How does it work?

- Call our tool hire helpline 01453 844 333
- Tell us what you need & for how long and to whom you would like it delivered
- Provide SWA with an order number
- SWA can deliver directly to site and arrange collection back to SWA on completion of the tool hire
- SWA will then raise an invoice to cover the total hire charge



Our experienced team are on call to help and advise you with everything from ordering, delivery, collection and health and safety requirements.

See page 175-178 for a listing of tools that can be hired.





## Hand Ratchet Crimping Tools

## **Crimp Tool for Pre-insulated Terminals – RPI-CH**

Hand ratchet tool with cushion handles to crimp pre-insulated terminals 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup>. For precise crimping both conductor and insulation in one easy action. Improved ergonomic design for easy crimping. Length: 250mm Weight: 0.59kg

## Crimp Tool for Pre-insulated Terminals – RPI-RA

Hand ratchet tool to crimp **rightangled** pre-insulated female push-on terminals 1.5mm<sup>2</sup> (red) and 2.5mm<sup>2</sup> (blue).

Length: 242mm Weight: 0.54kg



### Crimp Tool for Un-insulated Terminals – RPU

Hand ratchet tool to crimp un-insulated terminals 0.5mm<sup>2</sup> - 10.0mm<sup>2</sup>. Improved ergonomic design for easy crimping. Length: 230mm Weight: 0.6kg

## Length: 230mm Weight: 0.6kg

**Crimp Tool for Pre-insulated** 

Terminals – RPI

Improved ergonomic

design for easy crimping.

Hand ratchet tool to crimp preinsulated terminals 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup>.

For precise crimping both conductor

and insulation in one easy action.

## Service Pliers – SPUI

Service plier to crimp preinsulated and uninsulated terminals 0.5mm<sup>2</sup> to 6.0mm<sup>2</sup> with wire cuttter and bolt cutter.

Length: 230mm Weight: 0.13kg



## Crimp Tool for Un-insulated Terminals – RPT

Hand ratchet tool to crimp push-on un-insulated flat-tab or open barrel terminals 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup>. Improved ergonomic design for easy crimping. Length: 230mm Weight: 0.6kg

## Crimp Tool for Un-insulated Terminals – RP625

Hand ratchet tool to indent crimp un-insulated terminals 6mm<sup>2</sup> - 25mm<sup>2</sup>. Length: 350mm Weight: 0.7kg

## **Crimp Tool for Un-insulated Terminals – RP1516**

Hand ratchet tool to indent crimp un-insulated terminals 1.5mm<sup>2</sup> - 16mm<sup>2</sup>. Length: 280mm

Weight: 0.47kg

# **SWA**



## **Hand Ratchet Crimping Tools**



To see a video explaining techniques and best practice scan the QR code



For illustration purposes

## Crimp Tool for Un-insulated Terminals – RP16

Hand ratchet tool to indent crimp un-insulated terminals 10mm<sup>2</sup> - 16mm<sup>2</sup>. Length: 260mm Weight: 0.6kg

## Crimp Tool for Bootlace Ferrules – SPB0525

Small non-ratchet plier to crimp bootlace ferrules 0.5mm<sup>2</sup> - 2.5mm<sup>2</sup>. Length: 145mm Weight: 0.16kg

## **Crimp Tool for Bootlace** Ferrules – SPB07510

Small non-ratchet plier to crimp bootlace ferrules 0.75mm<sup>2</sup> - 10mm<sup>2</sup>. Length: 145mm Weight: 0.16kg

## Crimp Tool for Bootlace Ferrules – RPB01425

Small hand ratchet tool to crimp bootlace ferrules 0.14mm<sup>2</sup> - 2.5mm<sup>2</sup>

Improved ergonomic design for easy crimping. Length: 145mm Weight: 0.16kg



## **Hand Ratchet Crimping Tools**

## **Crimp Tool for Bootlace** Ferrules – RPB0525

Small hand ratchet tool to crimp bootlace ferrules 0.5mm<sup>2</sup> - 2.5mm<sup>2</sup> with unique single front or side loading die.

Improved ergonomic design for easy crimping. Length: 205mm

Weight: 0.40kg

## **Crimp Tool for Bootlace Ferrules – RPB56**

Small hand ratchet tool to crimp bootlace ferrules 0.5mm<sup>2</sup> - 6mm<sup>2</sup>. Improved ergonomic design for easy crimping. Length: 230mm Weight: 0.6kg



## **Crimp Tool for Bootlace Ferrules – RPB616**

Small hand ratchet tool to crimp bootlace ferrules 6mm<sup>2</sup> - 16mm<sup>2</sup>. Improved ergonomic design for easy crimping. Length: 230mm Weight: 0.6kg



## **Crimp Tool for Bootlace** Ferrules – RPB2550

Small hand ratchet tool to crimp bootlace ferrules 25mm<sup>2</sup> - 50mm<sup>2</sup>. Improved ergonomic design for easy crimping. Length: 235mm Weight: 0.6kg

### **Crimp Tool for Bootlace** Ferrules – RPB0256

Small hand ratchet tool to crimp bootlace ferrules 0.25mm<sup>2</sup> - 6.0mm<sup>2</sup> with unique self-adjusting, single entry, side loading die. Length: 175mm Weight: 0.35kg



## **Crimp Tool for Bootlace** Ferrules – RPB07510

Small hand ratchet tool to crimp bootlace ferrules 0.75mm<sup>2</sup> - 10mm<sup>2</sup> with unique self-adjusting, single entry, side loading die.

Length: 175mm Weight: 0.35kg

## **Crimp Tool for Bootlace** Ferrules – RPB1635

Small hand ratchet tool to crimp bootlace ferrules 16mm<sup>2</sup> - 35mm<sup>2</sup>. Improved ergonomic design for easy crimping. Length: 235mm Weight: 0.6kg



## **Crimp Tool for Bootlace** Ferrules – RPB50-95

Small hand ratchet tool to crimp bootlace ferrules 50mm<sup>2</sup> - 95mm<sup>2</sup>. Length: 240mm Weight: 0.8kg



## **Hand Cutting Tools**



To keep up to date with **new products** and **special offers** go online at

www.swaonline.co.uk

For illustration purposes

### Non-ratchet Cable Cutter – CC35

Small hand cable cutter up to 35mm<sup>2</sup> single core copper/aluminium cable with wire stripping facility. Length: 210mm Weight: 0.3kg

N.B. Not suitable for armoured cable

## Non-ratchet Cable Cutter – CC50

Small hand cable cutter up to 50mm<sup>2</sup> single core copper/aluminium cable. Length: 235mm Weight: 0.4kg

N.B. Not suitable for armoured cable

### Non-ratchet Cable Cutter – CC240

Large heavy duty cable cutter up to 240mm<sup>2</sup> single core copper/aluminium cable. Length: 600mm Weight: 1.8kg

N.B. Not suitable for armoured cable

#### Non-ratchet Cable Cutter – CC500

Large heavy duty cable cutter up to 500mm<sup>2</sup> single core copper/aluminium cable. Length: 810mm Weight: 1.25kg

N.B. Not suitable for armoured cable



## Hand Wire Strippers / Conduit Cutters / Cable Tie Tools

## Wire Stripper – ESI

Sprung handle wire stripper for twin and earth cable up to 2.5mm<sup>2</sup> complete with crimping and cutter facility up to 6mm<sup>2</sup>.



#### Wire Stripper – WS4

Sprung handle wire stripping tool for single cable 0.5mm<sup>2</sup> - 4mm<sup>2</sup>.



### Wire Stripper / Cutter / Pliers – WSC6

Sprung wire stripper/cutter/pliers for single cable 0.5mm<sup>2</sup> - 6mm<sup>2</sup> complete with lockable jaws.

## Cable Stripper – CCS359

Universal cable stripper for multi-conductor cable 3.2mm- 9mm diameter.



### Wire Stripper – WS026

Automatic wire stripper with adjustable stripping length and jaw tension control. Selfadjusting with hardened steel blades. Integral wire cutter (for single wires). Suitable for cables 0.2mm<sup>2</sup> - 6mm<sup>2</sup>.



### Cable Tie Tensioning Tool – CTG2248

Moulded cable tie tensioning tool complete with cut-off facility for nylon ties 2.2mm- 4.8mm width.



### Cable Tie Tensioning Tool – CTG3690

Metal cable tie tensioning tool with cut-off facility for nylon cable ties 3.6mm - 9.0mm width.



## Trunking / Conduit Cutter – M42

Hand ratchet cutter for both mini trunking and round PVC conduit up to maximum diameter 32mm. Complete with mitre block for mini trunking.

### Cable Tie Tensioning Tool – CTG2248MET

Metal cable tie tensioning tool with cut-off facility for nylon ties 2.2mm - 4.8mm width.



### Cable Tie Tensioning Tool – SSTCT1

Cable tie tensioning tool complete with cut-off facility for stainless steel cable ties up to 9mm diameter. Semi-auto model which tightens/tensions the tie. After tensioning the tie, press down the steel bar and the excess tie is cut cleanly leaving a flush fitting.



## **Impact & Data Tools**

## Impact and Punch Down Tool – IPDT-KR

Impact action inserts and trims the wire simultaneously when inserting in IDC terminals as found on telephone line boxes, the BT ADSL adaptors and most professional telephony fittings, network/telecom patch panels and sockets, and all over the professional telecom world.

Set the wire in the terminal blades and press down gradually. At a preset pressure the tool head impact action triggers and completes the insertion (with a metal insertion blade), while a small cutting blade trims the excess wire off.

Part No.	Suitable for terminal block type
IPDT-KR	Krone





## **Modular Crimp Tool Kit – MCK**

Modular crimp tool kit contains: **MCT** modular crimping tool for 8P8C/RJ-45, 6P/RJ-12, RJ-11 & 6P2C PLUG **CCS359** coaxial cable stripper 3.5 - 9mm max. **IPDT-KR** impact and punch down tool.

Tools available seperately:





## **Large Hand Crimping Tools**

## Large Hand Crimp Tool – CT650H

Mechanical crimp tool with integral revolving hexagonal crimp dies 6mm<sup>2</sup> - 50mm<sup>2</sup>. With insulated grip handles. Length: 380mm

Weight: 1.5kg

### Large Hand Crimp Tool – CT1095i

Mechanical indent crimp tool 10mm<sup>2</sup> - 95mm<sup>2</sup>. Change die size by a screw adjustment. Length: 570mm

Weight: 3.2kg

## Large Hand Crimp Tool – CT10240i

Mechanical indent crimp tool 10mm<sup>2</sup> - 240mm<sup>2</sup>. Change die size by screw adjustment. With insulated extendable grip handles. Length: 520mm Weight: 4kg

## Large Hand Crimp Tool – CT25150H

Mechanical crimp tool with revolving hexagonal crimp dies 25mm<sup>2</sup> - 150mm<sup>2</sup>. With insulated grip handles. Length: 650mm Weight: 3.9kg



### Large Hand Crimp Tool Kit – COP650TOOL-KIT

Hex crimp tool complete with 10 sizes of Copper Tube T.Q. terminals 6mm<sup>2</sup> - 50mm<sup>2</sup>.



## Large Hand Crimp Tool – CT6120H

Mechanical crimp tool with integral revolving hexagonal crimp dies 6mm<sup>2</sup> - 120mm<sup>2</sup>. With insulated grip handles. Length: 650mm Weight: 3.8kg

## Hand Ratchet Crimp Tool – RT10150H-C

Hand ratchet hexagon crimp tool 10mm<sup>2</sup> - 150mm<sup>2</sup>. 5 pairs of hexagonal profile dies make up full set. Tool is supplied with case and full die set.

Length: 420mm Weight: 2.0kg

For replacement dies see page 180



## **Large Hand Cutting Tools**

## **Ratchet Cable Cutter – RCC240**

Hand ratchet cable cutter. Suitable for cables up to 240mm<sup>2</sup> single core copper/aluminium cable.

Length: 260mm Weight: 0.58kg

N.B. Not suitable for armoured cable.



Hand ratchet heavy duty cable cutter with extendable handles. Suitable for cables up to 400mm<sup>2</sup> single core copper/aluminium cable.

Length: 240mm (290mm with handles extended)

Weight: 0.98kg

N.B. Not suitable for armoured cable.

## **Ratchet Cable Cutter – RCC32A**

Ratchet cable cutter with extendable handles suitable for armoured cables up to 32mm diameter. Supplied in a case. Length 310mm (380mm when handles extended) Weight: 3.0kg

## Ratchet Cable Cutter – RCC70A

Ratchet cable cutter with extendable handles suitable for armoured cables from 11.5mm to 39mm diameter (up to 70mm<sup>2</sup> 4 core PVC/SWA/PVC). Supplied in a case. Length: 380mm (485mm when handles extended) Weight: 3.2kg





## **Hydraulic Crimping Tools**

### Hydraulic Crimp Tool – HH1070H

Hand hydraulic crimp tool for copper tube terminals 10mm<sup>2</sup> - 70mm<sup>2</sup>.

Supplied in moulded one-piece case complete with hexagonal crimp dies.

Length: 310mm

Weight: 1.9kg



#### Hydraulic Crimp Tool – HT10150MC

Hand operated hydraulic crimp tool complete with hexagonal profile dies 10mm<sup>2</sup> - 150mm<sup>2</sup>.

Supplied in moulded one-piece case complete with hexagonal crimp dies. Handle lever releases when fully crimped.

CE



### **Hydraulic Crimp Tool – HH10150H**

Lightweight and compact hand hydraulic hexagon crimp tool 10mm<sup>2</sup> - 150mm<sup>2</sup>. Head rotates 180°, ideal for close quarter work.

Supplied complete with case and a full set of hexagonal profile dies.

Output: 5.2 Ton Length: 370mm Weight: 2.0kg

### Hydraulic Crimp Tool – HH10400H

Hand hydraulic hexagon crimp tool 10mm<sup>2</sup> - 400mm<sup>2</sup>. Head rotates 180°. Supplied complete with case and a full set of hexagonal profile dies. Output: 13 Ton Oil capacity: 200cc

Length: 650mm Weight: 7.4kg

For replacement dies see page 180



#### How does it work?

- Call our tool hire helpline 01453 844 333
- Tell us what you need & for how long and to whom you would like it delivered
- Provide SWA with an order number
- SWA can deliver directly to site and arrange collection back to SWA on completion of the tool hire
- SWA will then raise an invoice to cover the total hire charge



Our experienced team are on call to help and advise you with everything from ordering, delivery, collection and health and safety requirements.

See page 175-178 for a listing of tools that can be hired.



## Hydraulic Cutting Tools / Crimping Heads / Cutting Heads

## Hydraulic Cable Cutter – HHC50

Hand hydraulic cable cutter suitable for cable up to 50mm diameter – copper/aluminium cable and armoured cable up to 40mm diameter. Supplied in steel case.

Cutting force: 12 Ton Length: 630mm Weight: 7.1 kg



## Hydraulic Crimp Head – HCH10400

Hydraulic C head only to accept hexagon profile die sets 10mm<sup>2</sup> - 400mm<sup>2</sup>.

Dies ordered as required, 13 pairs make full set and can be used with hydraulic, electric and pneumatic pump (see page 179). Output: 12 Ton Jaw opening: 30mm Length: 260mm Weight: 4.6kg



## Cordless Crimp & Cutting Tool – BCCT10300

Battery operated crimp tool complete with hexagonal profile dies 10 - 300mm<sup>2</sup>.

Supplied with interchangeable cable cutting blades for copper and aluminium cable up to 40mm diameter (up to 70mm<sup>2</sup> 4 core PVC/SWA/PVC cable).

Supplied with all dies, cutting blade, 2 x li-on 18v batteries and charger, carry strap and case.

## Hydraulic Crimp Head – HCH10630

Hand held hydraulic crimp head to accept hexagon profile die sets 10mm<sup>2</sup> - 630mm<sup>2</sup>.

To crimp 10mm<sup>2</sup> - 400mm<sup>2</sup>, 13 pairs of C dies required. To crimp 500mm<sup>2</sup> & 630mm<sup>2</sup> you will also require: D410-500

(500mm<sup>2</sup>) cast die set, D410-630 (630mm<sup>2</sup>) cast die set.

DA630 adaptor is required to use with C dies 10mm<sup>2</sup> - 400mm<sup>2</sup>. For use with hydraulic, electric and

pneumatic pump (see page 179). Output: 23 Ton Length: 320mm Weight: 5.6kg



CE

## Hydraulic Cable Cutting Head – HC85

Suitable for cable up to 85mm diameter – copper/aluminium cable and armoured cable up to 50mm diameter. Supplied in steel case.

For use with hydraulic, electric and pneumatic pump (see page 179).

Cutting force: 7.5 Ton Length: 465mm Weight: 7.9kg



## Hydraulic Cable Cutting Head – HC100

Suitable for cable up to 100mm diameter – copper/aluminium cable and armoured cable up to 75mm diameter. Supplied in steel case.

For use with hydraulic, electric and pneumatic pump (see page 179). Cutting force: 7.5 Ton Length: 515mm Weight: 8.4kg

For replacement dies see page 180



## Hydraulic Pump – HFP1

Two stage foot operated hydraulic pump with automatic release when 700bar/10,000psi pressure is achieved. Complete with 2m hose, male quick release connector and case.

For use with the SWA range of hydraulic crimping heads and cable cutters.

#### Output: 700bar/10,000psi

Length: 710mm

Weight: 13.7kg





## Hydraulic Air Pump – PFP

A lightweight single speed efficient pneumatic hydraulic foot pump suitable for the SWA range of hydraulic crimping heads and cable cutters. Supplied with 2m hydraulic hose and 3/8" quick release male coupling.

**Hydraulic & Electric Pumps** 

Dimensions: 380mm x 150mm x 205mm

Weight: 6.7kg

Max. pressure: 1st stage air pressure 70-120psi (6-10kg/cm<sup>2</sup>) 2nd stage 700kg/cm<sup>2</sup>

Output per stroke: Oil delivery/ ICC stroke 300CC/min

Resevoir capacity: 700CC Oil Port Thread: 1/4 NPT



### **Electric Pump – HEP110**

110v electric pump. Can be used with **HCH10400** and **HCH10630** Crimp Heads, **HC85** and **HC100** Cutting Heads. Supplied with 3/8" BSP coupling thread. Optional foot pedal also available.

## **Electric Pump – HEP240**

240v electric pump. Can be used with **HCH10400** and **HCH10630** Crimp Heads, **HC85** and **HC100** Cutting Heads. Supplied with 3/8" BSP coupling thread. Optional foot pedal also available.

Supplied with pressure gauge and hand control.



To keep up to date with new products and special offers go online at

www.swaonline.co.uk



## Power Tools (battery) / Batteries / Chargers

## **Cordless Cutting Tool – BCC50A**

Battery operated cutting tool. Cable cutting blades for copper and aluminium cable up to 50mm diameter armoured or 85mm un-armoured.

Tool complete with LCD display to show force, cutting times, battery level and fault indication.

Supplied with cutting blade, 2 x li-ion 18v batteries and charger, carry strap and case.



## Cordless Hydraulic Crimp Tool – BCT10240

Battery operated crimp tool complete with hexagonal profile dies 10 - 240mm<sup>2</sup>. Auto cut-off when optimum crimping pressure reached. 180° rotatable head. Ergonomic design grip. Lightweight – only 3.3kg (tool only).

Tool complete with LED light, LED battery level indication.

Supplied with all crimp dies, 2 x li-ion 18v batteries and charger, carry strap and case.



## **Cordless Crimp Tool – BCT10300**

Battery operated crimp tool complete with hexagonal profile dies 10 - 300mm<sup>2</sup>.

Tool complete with LCD display to show force, crimping times, battery level and fault indication.

Supplied with all dies, 2 x li-ion 18v batteries and charger, carry strap and case.



## **Cordless Crimp Tool – BCT10400**

Battery operated crimp tool complete with hexagonal profile dies 10 - 400mm<sup>2</sup>.

Tool complete with LCD display to show force, crimping times, battery level and fault indication. Supplied with all dies, 2 x li-ion 18v batteries and charger, carry strap and case.



### Cordless Crimp & Cutting Tool – BCCT10300

Battery operated crimp tool complete with hexagonal profile dies 10 - 300mm<sup>2</sup>.

Supplied with LCD display and interchangeable cable cutting blades for copper and aluminium cable up to 40mm diameter (up to 70mm<sup>2</sup> 4 core PVC/SWA/PVC cable).

Supplied with all dies, cutting blade, 2 x li-ion 18v batteries and charger, carry strap and case.



## **Battery – BC-BAT**

18v li-ion battery for SWA's BCT and BCC tool range.



Charger – BC-CHG Charger for BC-BAT battery.





## **Mains Crimp Tools / Hot Air Guns**

### Electrical Crimping Unit – CRIMPMATIC1

- Bench mounted electric tool for a variety of terminals pre-insulated, un-insulated, flat-tab/ open barrel, bootlace ferrules.
- Consistent crimp performance
- Reduces operator fatigue

### Output Force: 12.7 kn Main Power Connection: 240 volts Power Consumption: 90 W Crimping Time: 1.5 secs. (60Hz) 1.8 secs. (50Hz) Weight: 2.7 kg Dimensions (mm): Length 325, Width 265, Height 150



- Bench mounted, air operated tool for a variety of terminals
- Consistent crimp performance
- Reduces operator fatigue
- Air Pressure: 5 6 bar (80 115psi)

Air consumption: 34L/min at 30 crimps per min Weight: 2.7kg

Dimensions (mm): Length 225, Width 135, Height 90



#### Dies listing for CRIMPAMATIC1 or PCH1

Part No.	Range (mm <sup>2</sup> )	Terminals
PHP156	0.5 - 6	Pre-insulated
PHU156	1.5 - 6	Un-insulated
PHFT156	0.5 - 6	Un-insulated 'Flat tab'
PHBLF4	0.5 - 4	Bootlace/Cord-end Ferrules
PHBLF6	0.75 - 6	Bootlace/Cord-end Ferrules
PHBLF10	6 - 10	Bootlace/Cord-end Ferrules
PHBLF25	10 - 25	Bootlace/Cord-end Ferrules
PHBLF35	16 - 35	Bootlace/Cord-end Ferrules
PHBLF50	25 - 50	Bootlace/Cord-end Ferrules

#### **Hot Air Guns**

- Ideal for the application of heat shrinkable products
- Available in both 240 volt and 110 volt
- Electronically monitored with variable settings for high and low temperatures
- Supplied with reflection and heat reducing nozzles
- Supplied fitted with plugs as standard

Part No.	Voltage	Output	Temperature Range	Air Flow Max
HAG110	110V	1500 watt	50 - 500°C	450 l/min
HAG240	240V	1500 watt	50 - 500°C	450 l/min



N.B. See Heat Shrink range on page 113.



## **Hexagonal Die Sets Selection Chart**

							5		and the second			0	E			2
	Tool Code	10	16	25	35	C 50	onduct 70	or Cros 95	ss Secti 120	ional A 150	rea mm 185	1 <sup>2</sup> 240	300	400	500	630
1	BCCT10300	HCDC10S	HCDC16S	HCDC25S	HCDC35S	HCDC50S	HCDC70S	HCDC95S	HCDC1205	HCDC150S	HCDC1855	HCDC240S	HCDC300S			•
S MAC	BCT10240	HCDC10S	HCDC16S	HCDC25S	HCDC35S	HCDC50S	HCDC70S	HCDC95S	HCDC120S	HCDC150S	HCDC185S	HCDC240S			·	
a contraction of the second se	BCT10300	HCDC10S	HCDC16S	HCDC25S	HCDC35S	HCDC50S	HCDC70S	HCDC95S	HCDC120S	HCDC150S	HCDC185S	HCDC240S	HCDC300S	·	ı	
7	BCT10400	D210-10	D210-16	D210-25	D210-35	D210-50	D210-70	D210-95	D210-120	D210-150	D210-185	D210-240	D210-300	D210-400	•	
	HH10150H	D120-10	D95-16	D70-25	D50-35	D50-35	D70-25	D95-16	D120-10	D150-150		ı	·	•		
all a	HH10400H	D210-10	D210-16	D210-25	D210-35	D210-50	D210-70	D210-95	D210-120	D210-150	D210-185	D210-240	D210-300	D210-400	·	
Car	HCH10400	D210-10	D210-16	D210-25	D210-35	D210-50	D210-70	D210-95	D210-120	D210-150	D210-185	D210-240	D210-300	D210-400	·	
	HCH10630	D210-10*	D210-16*	D210-25*	D210-35*	D210-50*	D210-70*	D210-95*	D210-120*	D210-150*	D210-185*	D210-240*	D210-300*	D210-400*	D410-500	D410-650
E A	НТ10150МС	HCD10MC	HCD16MC	HCD25MC	HCD35MC	HCD50MC	HCD70MC	HCD95MC	HCD120MC	HCD150MC		·			·	
CO HA	RT10150H	D120-10	D95-16	D70-25	D50-35	D50-35	D70-25	D95-16	D120-10	D150-150						

\*Denotes adaptor required (code: DA630)





## **Earthing components & accessories**

- Earthing protection 181-184
- Earthing accessories 185-186



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

## **Copper Bonded Earth Rod**

Manufactured from low carbon steel of grade BS970 or AISI 1018 with a high tensile strength of at least 600N/mm<sup>2</sup>. Low carbon steel cores are molecularly bonded with a 99.9% pure electrolytic copper up to a thickness of 0.25mm.

#### Features

- Perfectly bonded rod will last longer, drive easier and will not crack
- Corrosion resistance while providing the lowest resistance to ground
- Threads are rolled by roll threading process, which ensures that an even copper covering is maintained, even at the root of the thread providing greater strength than a cut thread
- Thread rolling process raises the surface of the rod so that the thread diameter is greater than the shank diameter



Solid copper rods available on request. Recommend install with driving stud and coupler.

Clamps - see page 182.

	Dimensions in mm						
Part No.	Rod Size Dia. x Length	Rod Dia. 'S'	Thread Dia. 'T'				
CER95-1200	9.5 x 1200	9.5 (3/8")	Unthreaded				
CER16-1200	16 x 1200	14.2 (5/8")	16 (5/8″)				

## **Driving Stud**

Used to drive the earth rod into the ground Material: High tensile steel

Part No.	Size (mm)
ERDS16	16 (5/8")



### Coupler

Counter bored to enclose threads and protect from damage and corrosion Material: Gunmetal

Part No.	Size (mm)
ERC16	16 (5/8″)







## **Copper Alloy Clamps**

Made from copper alloy to provide a strong resistance to corrosion.

#### **Rod to Tape Clamp**

Part No.	Size (mm)	Max Conductor
ERTC16	16 x (5/8")	26 x 12



#### Rod to Cable Clamp

Part No.	Size (mm)	Max Conductor
ERCC95	9.5 x (3/8")	35mm <sup>2</sup>
ERCC16	16 x (5/8")	50mm <sup>2</sup>

## Rod To Cable Lug Clamp

Part No.	Size (mm)	Max Conductor
ERCLC95	9.5 x (3/8")	35mm <sup>2</sup>
ERCLC16	16 x (5/8")	50mm <sup>2</sup>



## **Earth Clamps**

- Safety clamps
- Manufactured in brass for indoor use or phosphor bronze for outdoor use
- Manufactured to BS 951:2009
- Embossed tags 'safety electrical connection do not remove'

Part No.	Tag Colour	Description	Max Earth Conductor	Box Qty
SEC14	Red	Indoor use - dry, non corrosive to suit pipe dia. 12-32mm	1 x 10mm <sup>2</sup>	25
SEC14/3	Red	Indoor use - dry, non corrosive to suit pipe dia. 50-75mm	1 x 10mm <sup>2</sup>	20
SEC15	Blue	For outdoor corrosive, humid conditions to suit pipe dia. 12-32mm	1 x 10mm <sup>2</sup>	25
SEC15/3	Blue	For outdoor corrosive, humid conditions to suit pipe dia. 50-75mm	1 x 10mm <sup>2</sup>	20
SEC16	Green	For outdoor corrosive, humid conditions to suit pipe dia. 12-32mm	2 x 16mm <sup>2</sup>	25
SEC16/3	Green	For outdoor corrosive, humid conditions to suit pipe dia. 50-75mm	2 x 16mm²	20

## DC Tape Clamp

Used for supporting bare copper tape Material: Brass

Part No.	Conductor Size (mm)	

25 x 3

50 x 6

Square	Tape	Clamp	1

Used for supportir	ng
bare copper tape	VI -
Material: Brass	1
	1

Part No.

ESTC253

ESTC506

## **Oblong Test Clamp**



Part No.	Conductor Size (mm)
EOTC253	25 x 3
EOTC506	50 x 6

### DC Tape Clamp – Aluminium

**ETC253** 

**ETC506** 



Material: Aluminium

Part No.	Conductor Size (mm)
ETC253-ALU	25 x 3

## Plastic DC Clamp - High Impact PVC

Conductor Size (mm)

25 x 3

50 x 6

Used for supporting bare copper tape Material: PVC

Part No.	Conductor Size (mm)
EPTC253-GREY	25 x 3
EPTC253-GREEN	25 x 3
EPTC253-BROWN	25 x 3





## **Earth Bars and Disconnecting Links**

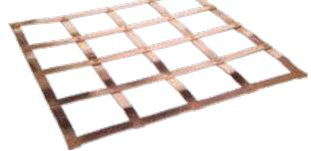
Bar: 50mm x 6mm hard drawn copper bar, having 99.9% purity Base: uPVC Fitting: M10 hexagon head screws Tested to: IEC 62561-1:2018

Part No.	Description	Length (mm)	Width (mm)	Total Height (mm)
IBRI	Insulated black round insulator c/w M10 hexagonal head nuts	-	-	-
EBDL	Disconnecting Link	125	90	90
EB-4	Four way earth bar	300	90	90
EB4-S	Four way earth bar with single disconnecting link	475	90	90
EB6-S	Six way earth bar with single disconnecting link	475	90	96
EB6-T	<b>EB6-T</b> Six way earth bar with twin disconnecting link		90	96
EB-6	<b>6</b> Six way earth bar		90	90
EB8-S	disconnecting link		90	96
EB8-T	EB8-T Eight way earth bar with twin disconnecting link		90	96
EB10-S	Ten way earth bar with single disconnecting link	725	90	96
EB10-T	<b>EB10-T</b> Ten way earth bar with twin disconnecting link		90	96
EB12-S	<b>EB12-S</b> Twelve way earth bar with single disconnecting link		90	96
EB12-T	Twelve way earth bar with twin disconnecting link	900	90	96

N.B. Other combinations available on request.

## **Earth Plate – Lattice Copper**











Earth Bar – Single (S-type)



Earth Bar – Twin (T-type)

To see a video explaining techniques and best practice scan the QR code





## **Copper Tape**

High conductivity copper tape to BS 1432:1987. Available in bare copper or PVC insulated.

Part No.	PVC Colour	Size (mm)	Coil Size (m)
BCT253-25	n/a	25 x 3	25
BCT253-50	n/a	25 x 3	50
BCT506-25	n/a	50 x 6	25
GECT253-25	Green	25 x 3	25
BROECT253-25	Brown	25 x 3	25
GRYECT253-25	Grey	25 x 3	25



Available by the metre in pre-cut lengths.

### **Aluminium Tape**

Bare aluminium tape to BS 2898-1350.

Part No.	PVC Colour	Size (mm)	Coil Size (m)	
BAT253-25	n/a	25 x 3	25	

Available by the metre in pre-cut lengths.







## Earthing components and accessories

## **Earthing Accessories**

## **Earth Rod Inspection Box**

Part No.	Size (mm) width x length x height
GEB-UK	95 x 95 x 55
GEB	95 x 95 x 55

Material: Polyamide 6/6. Complete with fixing screws.

**GEB-UK** 



300mm

256mm

O 200mm Nominal

O 70mm

## **Earth Pit**

Used to allow access to the connection between the earth rod and conductor.

#### **PLASTIC EARTH PIT**

The lightweight, heavy duty inspection pit with its unique design has resulted in performance capabilities superior to the traditional concrete pit, at a similar cost. Manufactured from a high performance polymer, the pit is UV stable and chemical resistant. In addition, the features incorporated within its design ensure ease of storage, reduced transportation costs, ease of installation and ease of subsequent inspection and testing of the earth electrode system, therefore providing significant practical benefits to both installers and specifiers alike.

#### **Features and benefits**

- Lockable iam free lid: Once installed the lid can be Allen Key locked to prevent tampering with equipment. Once locked, the design of the lid is such that debris cannot become jammed between the lid and the surround. Supplied with Allen Key.
- Screw retention facility: The stainless steel, rustproof screws are snapped into the lid, preventing loss whilst in storage or on site. The screws may also be used to lift off the lid using special sockets.
- Shatterproof material: The high performance polymer is significantly less brittle than concrete, reducing the likelihood of wastage due to breakages.

- Chemical resistance: Resistant to most substances. including petrol, oil, diesel, bitumen and concrete.
- UV Stability: UV additive minimising the effects of direct sunlight.
- Wide temperature applications: Capable of withstanding a wide range of external temperatures.
- Central 70mm diameter rod location hole: This ensures that the earth rod is centrally positioned, simplifying earth clamp connection.
- Quality guarantee: Fully compliant to BS EN 62305-3 and tested to BS EN 62561-5.

#### Plastic





#### CONCRETE **EARTH PIT**

- Suitable for most types of earthing and lightening protection installations
- The inspection pit protects the earth rod connection and makes it accessible for inspection

Dimensions: 275mm (W) x 275mm (D) x 130mm (H)

## **Earthing Accessories**

## Terminal Kit Box – EK1016

Terminal kit box complete with hand ratchet crimp tool and a selection of 10mm<sup>2</sup> & 16mm<sup>2</sup> copper tube terminals.

See also page 33.



## **Earth Clamp Set**

Ideal for radiators, sink units, ducting and display units. Easy to install, versatile, safe and reliable. For metal thickness: 2.5 - 6.0mm Packs comprise of: 10 clamps 10 nylon cable ties 10 safety labels 1 Allen Key



## 4 Way and 8 Way Earth Terminal Blocks



Part No.	Cable Entry Hole Diameters	Length (mm)	Width (mm)
4TB	1 x 6.5mm 3 x 5.5mm	54	19
8TB	2 x 6.5mm 6 x 5.5mm	88	19

## Braided Earth Straps and Lead Assemblies



Braided earth straps & lead assemblies made to order to suit all requirements or to your specifications.

When placing an enquiry, please supply details of:

- Cross sectional area of cable or braid (inc. voltage or amp rating)
- Terminals or stud hole dimensions required.
- Required hole centre to hole centre dimensions.
- Any special requirements such as restricted palm width for terminals.
- Supplied with BS EN 61238-1:2003 TQ lugs.

## Flexible Flat Tinned Copper Earthing Braid

Part No.	Current Rating Amps	Nominal CSA mm <sup>2</sup>	Nominal Dimensions mm	Reel Qty (m)
BRDPL30	30	1.7	4 x 0.75	50
BRDPL60	63	7.5	10 x 1.5	50
BRDPL100	90	10	14 x 1.5	50
BRDPL125	125	16	19 x 2.0	50
BRDPL200	200	35	25 x 3.5	50
BRDPL60-INS	63	7.5	10 x 1.5	50
BRDPL100-INS	90	10	14 x 1.5	50

N.B. INS denotes 'Insulated' (please state required colour).

#### Typical uses

- Earthing connections
- Power interconnection
- Lightning protection

Available by the metre.





# Tapes, sealants, lubricants & hole saws

- LLFA<sup>®</sup> compression tape 187-188
  - **Tapes** 189-191
  - Compounds 192
    - Lubricants 193
- Hole saws and accessories 194



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

# ΔFA



Industrial

Saving time, this rapidly applied solution is saving money. Multipurpose industrial grade solution used to create high tension seals with exceptionally long life. This is one product that will deliver every time.



Maintenance

Repairs, seals and insulates. One product with many uses. For a multitude of applications, LLFA Tape is an effective yet robust repair that is waterproof, weatherproof, easily applied and endures extreme conditions.

## LLFA<sup>®</sup> Compression Tape



## Electrical

Outstanding performance for high or low voltage insulation. Long lasting, water tight and robust. Used for bus bar insulation, cable jointing, connection weather proofing, and

#### Compression Tape combines ultra-fast, self-fusion with high tensile strength

Approvals: BS EN 50393:2006, BS EN150 4589-2:1999, BS 6920:2000

- Water tight electrical cable jointing and termination
- Leaking pipe repair without reducing the pressure or turning off the flow
- High voltage insulation
- Highly UV resistant
- Exceptional lifespan even when buried or submersed
- Functions in low or high temperatures

- Non-toxic, safe for use in direct contact with drinking water
- Easily applied, instant repair
- Environmentally responsible, replacing hazardous materials
- Saves time and money

SEAL – stretch to Maximum (300%) FINAL LAYER – Minimum Stretch WRAS

cable repair.



To see a video demonstrating the LLFA tape for **plumbing** situations scan the QR code or go to: www.youtube.com/ watch?v=tiAb4kVYOQA&t=1s



To see a video demonstrating the LLFA tape for **electrical** situations scan the QR code or go to: www.youtube.com/ watch?v=3efcErF0O4w&t=1s





## Tapes, sealants and lubricants

## LLFA<sup>®</sup> Compression Tape

## LLFA<sup>®</sup> Compression Tape

A self-fusing tape ideal to insulate and seal electrical cable splices where high and low temperature stability is needed. Inconjunction with LLFA Smooth can be used to repair outer sheath of cable, and where moisture, weather and radiation resistance is required.

Mechanically it provides a high tension wrap that creates an enduring seal under extreme environmental conditions. Due to its remarkable properties, it is also used to repair punctured water and air pipes that are subject to pressure and temperature variants.

Part No.	Length (m)	Width (mm)
LLFA 40/1 Black	10.9	25.4
LLFA 40/1 Red	10.9	25.4
LLFA 12/1 Black	3.6	25.4
LLFA 12/1 Red	3.6	25.4



ΔFA

LLFA 12/1

Free dispenser supplied with 10 rolls of LLFA 12/1 (red or black)

## LLFA® 1m Dispenser Pack

1m length of LLFA 40 / 1 black / red tape cut into 3 equal lengths.



Single Pack Part No.	Box of 25 Packs Part No.
L40PK1M Black	L40PK1MBLK-BX (Black)
L40PK1M Red	L40PK1MRED-BX (Red)

## LLFA<sup>®</sup> Smooth

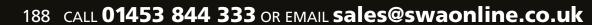
An insulating putty that is soft enough to mould into any cavity or change in diameter, yet consistent enough to hold its shape once applied.

It is primarily used to prepare a ready surface to which LLFA® TAPE can be applied.

Part No.	Pack Wgt (g)	
LSP320	113	









## Tapes

## **PVC Electrical Insulation Tape**

Based on a 0.11 mm soft PVC film, coated with an aggressive rubber-resin adhesive with flame retardancy and good ageing characteristics. Excellent conformability and high elongation at break. This tape is designed to comply with BS EN 60454 standard.

For use as electrical insulation on joints and splices on wires and cables, bundling, reinforcing, and colour identification.

Properties	Unit	Spec
Total thickness	mm	0.132 +/- 10%
Adhesion to steel	kg/25mm	> 0.45
Adhesion to backing	kg/25mm	> 0.45
Tensile strength	kg/25mm	> 5.0
Elongation	%	> 125
Unwinding force	g/19mm	> 400
Dielectric breakdown	kv	> 5
Flammability	sec	< 15
Temp range	°C	0 - 80

#### Test method: EN 60454-1 / ASTM D-1000

**Shelf life**: 12 months when stored in original carton at 23°C and 65% relative humidity.

Availability: Standard 20 & 33m rolls.

Above figures are for reference and cannot be treated as warranties.

Customers are advised to test the material to determine the suitability against intended applications.

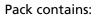
## Smartypak™

For use as electrical insulation on joints and splices. Ideal for bundling, reinforcing and colour identification.

PVI

100

- Complies to BS EN 60454 standard
- Flame retardant



- 2 x Black 2 x White 1 x Yellow 1 x Blue 1 x Grev
- 1 x Brown 1 x Green/Yellow
- 1 x Red



PVC



Part No.	Width (mm)	Length (m)	Pack Qty
PVCT1920-*	19	20	10
PVCT1933-*	19	33	8

\*suffix black, blue, brown, green, grey, red, white, yellow, green/yellow

Part No.	Width (mm)	Length (m)	Pack Qty
PVCT2533-*	25	33	6

\*suffix black, blue, brown, grey, red, white, yellow, green/yellow

Part No.	Width (mm)	Length (m)	Pack Qty
PVCT5033-*	50	33	1

\*suffix black, blue, brown, green, grey, red, white, yellow, green/yellow



Part No. Length (m)		Width (mm)
PVCT1920SP	20	19



## Tapes

## Self-Fusing Tape

- Pliable
- Also known as self-amalgamating tape

#### Application

- Insulation of power and distribution cables up to 26kV
- Repair and bonds between numerous insulating & sheathing materials e.g. PE, XLPE, EPR, PVC, butyl, neoprene
- Sealing of moulds and reinforcing cable insulation

Part No.	Width (mm)	Length (m)	Thickness (mm)
SFT19	19	9	0.76

Tensile strength	250 PSI
Elongation at break	800%
Dielectric strength	26KV / mm
Temperature range – short-time up to	-20°C to + 80°C 95°C

## Denso Tape

- Self-adhesive petrolatum tape
- British Gas approved
- Requires minimal preparation
- Flexible
- Effective long term sealing and protection

#### Applications

Corrosion protection of pipes, valves, joints, metal surfaces, and cable above and below ground or under water.

Part No.	Width (mm)	Length (m)
DENSO TAPE 1050	50	10

Safety data sheet available on request.



## **Gaffer Tape**

Vinyl cloth reinforced tape with adhesive backing.

- The ideal maintenance aid a must for temporary repair work
- Extra high performance, heavyduty used in the engineering, aerospace and motor industries
- Very good temperature and UV stability
- Can be used inside or outdoors

#### Features

- Excellent physical and electrical properties that guarantee long life
- Good dielectric properties
- Extremely ductile
- Welds quickly to a homogeneous mass without cavities
- Non-tacky
- Easy to handle and apply
- Cleanly removable when cut



Part No.	Colour	Width (mm)	Length (m)
GT5050	Grey	50	50



## Tapes, sealants and lubricants

## Tapes

## **Underground Marking Tape**



Part No.	Length (m)	Width (mm)	Colour	Tape Description
UMT-EL	365	150	Yellow	Electrical Cable Below
UMT-STL	365	150	Yellow	Street Lighting Cable Below
UMT-TEL	365	150	Green	Telephone Cable Below

Other types and languages available to order.

## **Barrier and Hazard Warning Tape**

A non-adhesive polythene barrier tape with highly contrasting coloured stripes which serve as a clear and visual warning and also present a barrier to areas that require to be cordoned off.

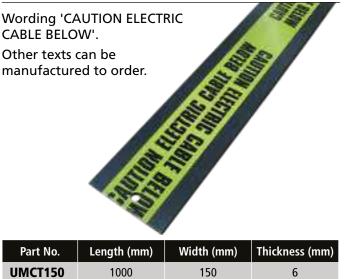
Suitable for a wide range of uses that include construction sites, factories or warehouses and many other situations where safety of personnel is of a priority.

Available in red/white and black/yellow diagonal stripes.

Part No.	Length (m)	Width (mm)	Colour
BT100RW	100	75	Red/White
BT500RW	500	75	Red/White
BT100BY	100	75	Black/Yellow
BT500BY	500	75	Black/Yellow

Adhesive versions available to order.

## **Cable Protection Tiles**



$\frown$	

To keep up to date with new products and special offers go online at

www.swaonline.co.uk



## Compounds

## **Electrical Weatherproof Compound**

- EWC1 Also known as R391

#### **Seals and Protects**

- Protects electrical connections from moisture and corrosive vapours and is widely used for a variety of electrical applications including work on junction and conduit boxes
- Possesses good insulating properties and helps to prevent short circuits due to dampness
- Is non-hardening and doe not shrink, crack or peel thereby allowing the compound to be readily removed and replaced safely by hand

does eel		
		0

Specific gravity at 15.5°C	1.70
Flash point	+210°C
Operating temperature	-20°C to +80°C
Working voltage	1000 Volts max.
Volume resistivity at 20°C	8 x 10 <sup>11</sup> ohm-m
Weight	500g

## Sealing Compound – RMX

For filling cavities and making airtight and watertight joints, especially in electrical equipment to exclude moisture.

Type: Non oxidizing resin/oil based compound suitably filled with inert mineral fillers.

Appearance: Grey putty-like finish.

Consistency: Putty-like.

Flash Point: Minimum 200°C

Temp. Range: 150°C continuous.

Breakdown Strength: When tested in a cell with a 4mm gap at 18°C the compound withstood 25kV for 1 minute.

Part No.	Pack Size
RMX	100g

## Sealing Compound – DUCTSEAL454

Duxseal is a universal sealing putty based on butyl rubber.

#### Applications

- Wall ducts
- Cable ducts
- Electrical devices
- Drains
- Water installation

#### Features

- Ease of use
- Excellent sealing on almost every material

   including metal, concrete, stone, wood, glass, ceramics, enamel
- Firm consistency and easy modeling
- Extreme high resistance to water, gas, sand and condensation
- Temperature resistivity permanently up to 80°C (short-term up to 120°C)
- Excellent ageing characteristics
- Unlimited shelf life

Colour: Grey Pack quantity: 454g

## Electrical Joint Compound – Unial Paste

Recommended for use on aluminium to aluminium and aluminium to copper connections, on all bare conductors and busbars.

Assumes a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film.

Part No.	Volume
UN225	225ml





## Lubricants

## **Cellpack Easy-Glide**

#### Time-saving and secure

Pulling new cables or wires in cable channels is tough – with Easy-Glide you get a perfect lubricant.

Not only saving time, it also protects cable sheaths from damage, it is biologically safe and harmless to health. You can increase your productivity thanks to Easy-Glide. Easy-Glide eases and accelerates the pulling of cables and wires through cable channels. Damage to the outer sheath will be avoided.

#### **Properties**

- Improved sliding effect
- Resistant to temperatures up to 82°C
- Non-corroding
- Non-flammable
- Pleasant smell
- Harmless composition
- Neither sticks or generates flakes
- Skin-friendly and easily washable
- Bio-degradable
- Non-stain to fabric and furnishings
- Bucket version available



Part No.	Contents	Container
EASY-GLIDE250	250ml	Plastic Bottle
EASY-GLIDE1050	1050ml	Plastic Bottle

#### Tests

Conforms to UL and CSA norms

#### Recommendations

Close after use. Store in a cool and dry place **Tips** Easy-Glide can be applied by hand. Apply uniformly.





## Hole saws and accessories

## **Hole Saws and Accessories**

### **Hole Saws**

SWA offer a comprehensive range of quality hole saws specifically designed for the trade professional. Using premium quality materials, each hole saw is of bi-metal construction for fast and effective performance.

The range is further complemented with the addition of a 6pc and 9pc kit supplied in a hand carry case.

- Full range from 14mm to 200mm (subject to M.O.Q)
- Professional quality
- Variable pitch teeth for high speed clean cutting
- Strong and durable
- Value for money

-			
Part No.	Hole Saw Sizes		
BMHS16	16mm	5/8"	B
BMHS20	20mm	25/32"	B
BMHS22	22mm	7/9"	B
BMHS25	25mm	1"	B
BMHS32	32mm	1 1/4"	B
BMHS38	38mm	1 1/2"	B
BMHS40	40mm	1 9/16"	B
BMHS44	44mm	1 3/4"	

Part No.	Hole Saw Sizes	
BMHS51	51mm	2"
BMHS57	57mm	2 1/4"
BMHS64	64mm	2 1/2"
BMHS73	73mm	2 7/8"
BMHS76	76mm	3"
BMHS83	83mm	3 1/4"
BMHS102	102mm	4"

## **Electricians Hole Saw Kits**

Professional bi-metal hole saw kits with variable pitch teeth.

#### HSK1

9 piece kit contains: 16mm, 20mm, 25mm, 32mm, 40mm and 51 mm hole saws plus 1 x ARBOR1 plus 1 x ARBOR10 plus 1 x 1/4" x 4" spare HSS pilot drill

#### HSK2

6 piece kit contains: 64mm, 76mm, 89mm and 102mm holes saws plus 1 x ARBOR10 plus 1 x 1/4 x 4" spare HSS pilot drill

## Hole Saw Arbors and Drills

For use with bi-metal hole saws. Arbors supplied with pilot drill.

#### Arbors

Part No.	Size
ARBOR1	14 - 30mm
ARBOR10	32 - 152mm

#### **Pilot Drills**

Part No.	Size
HSSPD1	1/4" x 3"
HSSPD2	1/4" x 4"



SWA







## **Industrial aerosol products**

- Lubricants and protection sprays 195
- **Cleaning sprays and line marking paint** 196



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

## **Industrial aerosol products**

## **Lubricants and Protection Sprays**

## Silicone Lubricant

#### Part No. SS400

- Multi-purpose lubricant
- Plastic injection mould release
- Lubricates in clean areas
- Ideal for assembly work: i.e. wiring looms, plastic components, furniture, plumbing, electrical components
- Conveyer and curtain rails
- Clean lubricant
- Long lasting
- Invisible lubricant
- Prevents sticking
- Contents: 400ml



## **Cold Zinc Galv Spray**

#### Part No. GLV400

- Protects against rust and corrosion
- Formulated to use as a touch up for marred, hot galv. surfaces
- Protects all iron and steel industrial equipment: piping ducts, water tanks, auto and marine parts
- Welds on both bare and previously galvanised surfaces
- Ideal for making good cut trunking: cable tray, channel etc
- Contents: 400ml



## **Cutting & Tapping Spray**

#### Part No. CTS400

- Drilling, tapping, reaming all metals
- Rotary broaching
- Substitution of soluble oil for difficult metal cutting on machine tools
- Suitable for fine and difficult metal cutting operations
- Longer tool and drill life
- Improves finish
- Reduces downtime
- Superior to soluble and spindle oils
- Improves productivity
- Contents: 400ml



### **Clear Penetrating Oil**

#### Part No. CPO400

- Rapid penetration for all threaded components / locks etc
- Good corrosion protection
- Clean to use
- Both lubricates and penetrates components affected by corrosion
- Multiple uses
- Contents: 400ml



Material Safety Data Sheets available on request, visit www.swaonline.co.uk



## Pa • F

## **Industrial aerosol products**

## **Cleaning Sprays and Line Marking Paint**

## **Line Marking Paint**

A lead free, resin based line marking paint in 750ml tins. These paints produce a hard wearing, fast drying line, and can be used on concrete, tarmacadam, wood and composites.

Part No.	Colour	Contents (ml)	
LMP750-Y	Yellow	750	
LMP750-R	Red	750	
LMP750-W	White	750	
LMP750-B	Blue	750	



## **Electrical Cleaner**

#### Part No. CBC400

- Cleans and degreases electrical contacts and sensitive components
- Leaves no residue
- Plastic compatible
- Switch cleaning
- Fast acting
- Contents: 400ml





Material Safety Data Sheets available on request, visit www.swaonline.co.uk





## **Sundries**

- **Stud extensions / screws / warning labels** 197
  - **Constant force springs / hose clamps** 198



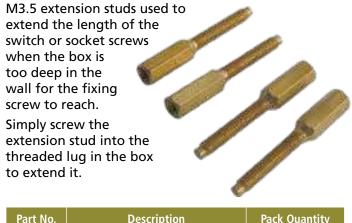
All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

## Sundries

## **Stud Extensions / Screws / Warning Labels**

## **Brass Stud Extensions**



Part No.	Description	Pack Quantity	
BSE-50	3.5mm brass stud extension	50	

## Warning Label



## **Long Metric Screws**



Part No.	Description	Pack Quantity	
ZPS25	25mm x 3.5mm zinc plated screws	100	
ZPS35	35mm x 3.5mm zinc plated screws	100	
ZPS40	40mm x 3.5mm zinc plated screws	100	
<b>ZPS50</b> 50mm x 3.5mm zinc plated screws		100	
ZPS75	75mm x 3.5mm zinc plated screws	100	



Part No.	Description	Pack Quantity
NPFS50	50 mm x 3.5mm steel nickel plated flat countersunk head screws	100

Screws and Stud Extensions also available in Selekt-A-Box™ Range (see page 31)



## **Sundries**

## **Constant Force Springs / Hose Clamps**

## **Constant Force Springs**

A tightly coiled wound band, manufactured from type 310 stainless steel. When extended, a constant force is exerted and this is maintained as the spring is allowed to close. The full force is effective until the spring is in the fully closed position.

Constant force springs are used to provide reliable solderless continuity in earthing in low and medium voltage joints and termination systems.



22

24

32

40

AISI 430 stainless steel general purpose clamp with zinc plated carbon steel screw for connecting pipes and hoses.

**Hose Clamps** 



Part No.	Range in mm	Pack Quantity		
JC13-20	13-20	100		
JC18-25	18-25	100		
JC25-35	25-35	100		
JC27-40	27-40	100		
JC35-50	35-50	100		
JC40-55	40-55	100		
JC55-70	55-70	100		
JC70-90	70-90	100		
JC85-100	85-100	Each		
JC160-180	160-180	Each		

Sold in eaches

Part No.

**CFS10** 

**CFS16** 

**CFS17** 

CFS22

CFS24

CFS32

CFS40

24-37

32-50

44-70

58-94



19

19

19

19

0.25

0.35

0.50

0.50

Hose Clamps and Constant Force Springs also available in Selekt-A-Box™ Range (see page 31)





## Definitions

- **Degree of ingress protection (IP rating)** 199
  - Hazardous area classifications /
    - protection concepts 200
    - Terms & conditions of sale 201



All the right connections!®

CALL 01453 844 333 EMAIL sales@swaonline.co.uk GO ONLINE AT www.swaonline.co.uk

## **Degree of Ingress Protection (IP Rating)**

In accordance with EN 60529:1991.

SWA cable glands comply with the requirements of EN 60529:1991 (IEC 529) in respect of IP ratings. Some cable gland types have been tested to IP66, whilst other types have been tested to IP66, IP67, and IP68, to a depth of 30 metres.

#### **Protection Against Solid Foreign Objects**

	IP	Details			
Tests	1st Figure	Designation	Scope of protection Explanation		
	0	Non-protected	Non-protected		
Ø 50mm	1	Protected against solid foreign objects of 50mm diameter and greater	Protected against access to hazardous parts with the back of a hand		
Ø 12.5mm	2	Protected against solid foreign objects of 12.5mm diameter and greater	Protected against access to hazardous parts with a finger		
Ø 2.5mm	3	Protected against solid foreign objects of 2.5mm diameter and greater	Protected against access to hazardous parts with a tool		
Ø 1.0mm	4	Protected against solid foreign objects of 1.0mm diameter and greater	Protected against access to hazardous parts with a wire		
$\odot$	5	Dust protected	Protected against access to hazardous parts with a wire		
$\odot$	6	Dust-tight	Protected against access to hazardous parts with a wire		

#### **Protection Against Water**

	IP	Details	
Tests	2nd Figure	Designation	
	0	Non-protected	
픵	1	Protected against drops of water falling vertically.	
O*	2	Protected against drops of water falling at up to 15° from the vertical	
5	3	Protected against spraying water at 60° from the vertical.	
0	4	Protected against splashing water from all directions	
*	5	Protected against jet of water from all directions	
	6	Protected against jet of water of similar force to heavy seas	
	7	Protected against the effect of immersion	
-	8	Protected against prolonged effects of immersion under pressure to a specified depth.	

#### **Protection Against Impact**

Tests		15 cm	20 cm	40 cm	40 cm	40 cm
IK	0	2	4	7	8	10
Details	Non-protected	Shock energy: 0.225 joule	Shock energy: 0.500 joule	Shock energy: 2.00 joule	Shock energy: 6.00 joules	Shock energy: 20.00 joules



## **Hazardous Area Classifications / Protection Concepts**

## **Hazardous Area Classifications**

#### Zone 0

Zone in which an explosive atmosphere is constantly present, or present for long periods.

(Rough guide: hazard present for more than 1,000 hours / year)

#### Zone 1

Zone in which an explosive atmosphere is likely to occur in normal operation.

(Rough guide: hazard present between 10 & 1,000 hours / year)

#### Zone 2

Zone in which an explosive atmosphere is not likely to occur in normal operation and if it occurs it will exist only for a short time.

(Rough guide: hazard present for less than 10 hours / year)

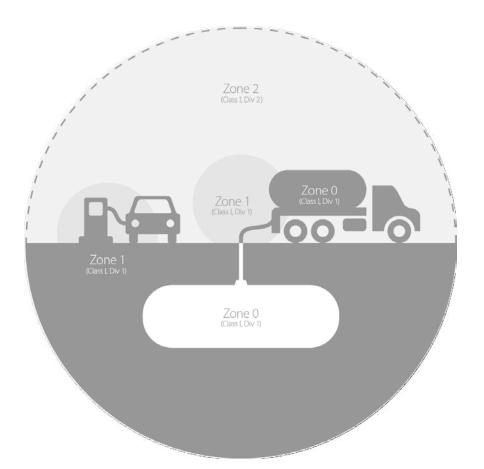
Guidance in the classification of hazardous areas is given in BS EN 60079-10:1996 IEC79-10

### **Protection Concepts**

#### Zone Type of Protection Allowed

- 0 EEx ia intrinsically safe apparatus or system
   Ex s special protection (specifically certified for use in Zone 0)
- Any type of protection suitable for Zone 0.
   EEx d flameproof enclosure
   EEx ib intrinsically safe apparatus or system
   EEx p pressurised apparatus
   EEx e increased safety
   EEx m encapsulation
- Any type of protection suitable for Zone 0 and/or Zone 1
   \*EEx a – oil immersion
  - \*EEx q powder filling
  - Ex N non-sparking

\*In some countries the methods of protection against oil and powder are allowed in Zone 1. Please check before installation.





## **Terms & Conditions of Sale**

#### DEFINITIONS

'You' the person who buys or agrees to buy the goods from SWA Ltd.

Conditions the terms and conditions of sale as set out in this document and any special terms and conditions agreed in writing by SWA Ltd.Goods the articles which you agree to buy from SWA Ltd.

'Us'/'We' means SWA Ltd of Abbey Mills, Charfield Road, Kingswood, Wotton-Under-Edge, Gloucestershire GL12 8RL.

#### 1. Price

Prices are recommended prices for the quantity stated and changes in quantity may affect price. We reserve the right to vary prices without notice and to charge you the price ruling at date of despatch. All prices are exclusive of VAT, which will be charged at the appropriate rate.

#### 2. Orders

All orders for Goods will be deemed to be an offer by you to purchase Goods from us pursuant to these Conditions.

Unless confirmation of telephone orders is clearly marked on the official orders we will accept no responsibility for duplication of despatch.

#### 3. Delivery

Every endeavour will be made to maintain quoted delivery dates but no responsibility for later delivery due to circumstances beyond our control will be accepted. In no case shall delay be a ground for rejecting goods or terminating the contract. Items quoted ex-stock are subject to prior sale.

If for any reason we fail to deliver the goods you must give us notice of non-delivery within three days of receipt of our invoice.

#### 4. Catalogues and Brochures

No responsibility is accepted for contingencies arising from errors and omissions in quotations or catalogues produced by us.

#### 5. Cancellation and Return

No cancellation of an order will be effective unless it is in writing and accepted by us. Upon the agreed cancellation of any order you may be liable to a cancellation charge. Amendments may also be subject to a similar liability. On no account will cancellation be accepted for items specially purchased on your behalf.

In no circumstances may goods correctly supplied against a firm order be returned without you having first applied for and obtained our written consent. Returns Authorisation Numbers may be issued via the Sales Office and must be clearly marked on the outer packaging of any consignment being returned to us.

We reserve the right to apply a handling charge where goods are returned for credit.

#### 6 Claims

Where is it apparent on a reasonable inspection that the goods do not conform with the order (other than by short delivery or damage) you must advise us within three working days. If you fail to give us notice within that time the goods will be deemed to have been accepted and you shall not be entitled and irrevocably and unconditionally waive any right to reject the goods.

Any goods which are found to our reasonable satisfaction to be defective after normal use due to faulty design or manufacture will, at our sole discretion, be replaced free of charge or repaired free of charge provided that:

- (a) 'Normal use' is following any British Standard Institute guidelines as to use and/or any instructions also supplied with the goods
- (b) In the case of defect apparent upon inspection you notify us within three working days of the date of delivery.
- (c) In the case of defect not apparent on inspection you notify us within six months of the date of delivery.
- (d) The goods are made available for inspection at a time and place reasonably arranged by SWA.
- (e) The goods have not been misused, mishandled, modified or repaired other than with our written consent.
- (f) The defect in the goods does not arise from any instruction or specifications supplied by you.

(g) The charges for the goods have been paid by the due date.

In no circumstances will we be liable for any defect arising from fair wear and tear.

#### 7. Payment

A credit account may be opened for you subject to satisfactory references.

Settlement terms are strictly net 30 days account unless otherwise agreed.

Credit facilities may be withdrawn or reduced at any time at our sole discretion. Even if we have previously agreed to give you credit, we reserve the right to refuse to execute any order or contract if the arrangements for payment or your credit rating are not satisfactory to us. We may require security or payment for each consignment when it is available and before it is despatched, in which case delivery may be delayed until we are satisfied that payment has been received.

We understand and may exercise our statutory right to take legal action and claim interest and compensation for debt recovery costs under the late payment legislation if we are not paid according to agreed credit terms.

#### 8. Risk and Title

Risk shall pass on delivery of the Goods to the delivery address. The ownership of the goods shall remain with SWA until such time as payment in full has been received.

If for whatever reason the goods remaining at any premises of yours have been paid for either partly or in full, we have the right to repossess such goods in lieu of payment for any outstanding invoices which remain unpaid in the event of your going into receivership or ceasing to trade.

#### 9. Carriage

Carriage will be charged on all sales unless otherwise agreed. Rates vary according to the delivery service requested and the delivery address.

#### 10. Limited Liability

Any liability we may incur to you in contract or tort (including liability in negligence) arising out of or as a result of:

- a) any failure to supply or deliver goods
- b) any delay in delivery of goods
- any defect in any goods or service shall be limited to the purchase price of the goods in question. Your statutory rights are not affected

#### 11. Liability to third parties

You shall indemnify us in respect of any liability and all losses, costs, charges and expenses which we may suffer or incur by reason of any claim (including for liability in negligence) made by third parties in respect of or arising out of the state conditions or use of goods including without limitations, goods resold to third parties whether or not despatched directly to third parties at your request) or in any other way relating to the goods.

#### 12. Force Majeure

These conditions of sale shall be construed in accordance with the laws of England and both parties agree to submit to the exclusive jurisdiction of the English Courts.

We shall incur no liability for failure to perform our obligations hereunder due to the existence of circumstances which we have not caused and which are beyond our control.

All SWA products must be installed by a qualified person to the latest relevant standards, guidelines and best practice.



## Notes





# All the right connections!®

SPECIALISED WIRING ACCESSORIES LTD



Abbey Mills, Wotton under Edge, Glos, GL12 8RL, UK Tel: **01453 844 333** Fax: **01453 842 224** Email: **sales@swaonline.co.uk** 

www.swaonline.co.uk