



# Technická inšpekcia, a.s.

Trnavská cesta 56, 821 01 Bratislava  
Slovenská republika

## [1] EU-TYPE EXAMINATION CERTIFICATE



- [2] Equipment or Protective System Intended for use in potentially explosive atmospheres  
Directive 2014/34/EU
- [3] EU-Type Examination Certificate Number:  
**TI21ATEX 1122 X**
- [4] Product: **ATCAB® REDUCER**  
Type: **TYPE - A and TYPE - B**
- [5] Manufacturer: **ATLAS METAL INDUSTRIES PRIVATE LIMITED**
- [6] Address: **INDUSTRIAL PLOT NUMBER 1 AND 2, R.S.NO 472, AT VILLAGE CHANGA, JAMANGAR LALPUR HIGHWAY, CHANGA, TALUKA JAMNAGAR, GUJARAT, 361012**
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of product intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The examination and test results are recorded in confidential report No. 825/5/2017.
- [9] Compliance with the Essential Health and safety Requirements has been assured by compliance with: **EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-31:2014** except in respect of those requirements listed at item 18 of the Schedule.
- [10] If the sign "X" is placed after the certificate number, it indicate that the product is subject to the Specific conditions of Use specified in the schedule to this certificate.
- [11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of this Directive apply to the manufacturing process and supply of this product.
- [12] The marking of the product shall include the following:



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

**-60°C ≤ Tamb ≤ +125°C  
-60°C ≤ Tamb ≤ +125°C**

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Bratislava, August 16<sup>th</sup>, 2021

*Vladimír Jurík*  
JUDr. Vladimír Jurík  
General Director

This Certificate has cancelled Certificate No. TI21ATEX 104 X dated January 28<sup>th</sup>, 2021.  
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NB 1354



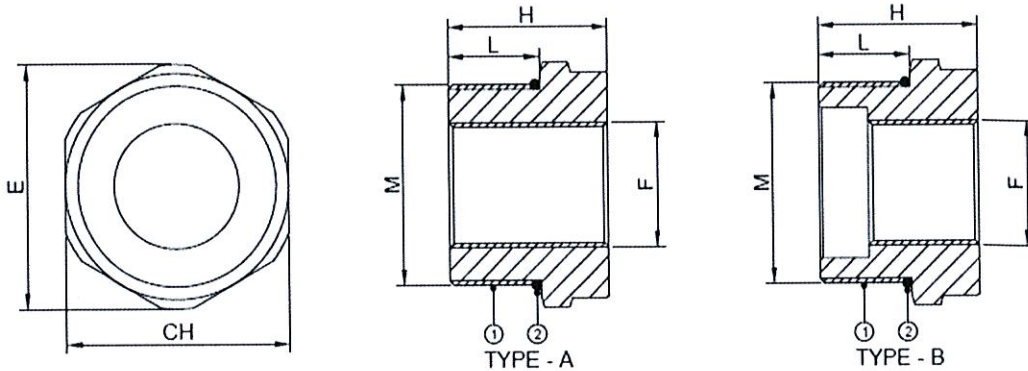
[13] **Schedule**

[14] **EU-Type Examination Certificate Number: TI21ATEX 1122 X**

[15] Description of product:

**ATCAB® REDUCER, TYPE - A and TYPE - B**

The ATCAB® REDUCER is intended for outdoor use in the appropriate Hazardous areas providing environmental protection IP67 with entry thread of Metric, BSP (BS Pipe Threads), NPT (Taper Threads) And ET (BS Conduit Thread). They are suitable for normal industrial environmental of temperature, humidity and vibration. The ATCAB® REDUCER is available to suit explosive atmosphere applications as well as general purpose and industrial. The ATCAB® REDUCER used for thread conversion and available in a wide range of thread & sizes. The ATCAB® REDUCER consist of Reducer and Sealing ring. Reducer is made from Brass, Stainless Steel or Mild Steel. Sealing Ring is made of SILICON. The ATCAB® REDUCER is suitable for operating temperature in the range -60°C to +125°C.



BILL OF MATERIAL				
Sr.No.	Part Name	Material	Supplier Detail	Qty.
1	Reducer	Brass : BS 2784 CZ121 or IS 319 gr.1 , SS: ASTM A314 gr. 304/316 L , Mild Steel	In - House	1
2	Sealing Ring	SILICON	Kesaria Rubber	1

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ATCAB® REDUCER Dimension Chart:

Sr. No.	Code	CH	E	L	H	Sr. No.	Code	CH	E	L	H
1	R01	20	22	15	26	17	R17	40	44	15	26
2	R02	24	26	15	26	18	R18	50	55	15	29
3	R03	30	33	15	26	19	R19	60	66	20	34
4	R04	36	39	15	26	20	R20	65	71	20	34
5	R05	45	49	15	26	21	R21	24	26.4	18	29
6	R06	55	60	15	29	22	R22	27	29.7	18	29
7	R07	69	75	15	29	23	R23	36	39.6	22	33
8	R08	80	88	20	34	24	R24	45	49.5	22	33
9	R09	95	105	20	34	25	R25	50	55	24	38
10	R10	26	28.6	15	26	26	R26	69	75	24	38
11	R11	36	39.6	16	27	27	R27	80	88	28	42
12	R12	45	49.5	17	28	28	R28	98	105	28	42
13	R13	50	55	17	31	29	R29	36	39.6	23	34
14	R14	69	74	18	32	30	R30	45	49.5	23	34
15	R15	98	105	20	34	31	R31	80	88	28	42
16	R16	32	35	15	26						



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ATCAB® REDUCER Selection Chart (1):

	ISO 262 (MM)										USAS 2.1.1968 (NPT)									
	MALE	FEMALE									3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	1.1/4" NPT	1.1/2" NPT	2" NPT	2.1/2" NPT	3" NPT	
	M12X1.5	M16X1.5	M20X1.5	M25X1.5	M32X1.5	M40X1.5	M50X1.5	M63X1.5	M75X1.5	M90X1.5										
ISO 262 (MM)	M12X1.5																			
	M16X1.5	R01																		
	M20X1.5	R02	R02								R02									
	M25X1.5	R03	R03	R03							R03	R03								
	M32X1.5		R04	R04	R04						R04	R04	R04							
	M40X1.5			R05	R05	R05						R05	R05	R05						
	M50X1.5				R06	R06	R06	R06				R06	R06	R06	R06					
	M63X1.5					R07	R07	R07	R07				R07	R07	R07	R07				
	M75X1.5						R08	R08	R08	R08					R08	R08	R08	R08		
M90X1.5										R09					R09	R09	R09	R09		
USAS 2.1.1968 (NPT)	3/8" NPT	R01																		
	1/2" NPT	R21	R21																	
	3/4" NPT	R22	R22	R22							R22	R22								
	1" NPT		R23	R23	R23						R23	R23	R23							
	1.1/4" NPT			R24	R24	R24						R24	R24	R24						
	1.1/2" NPT				R25	R25	R25						R25	R25	R25					
	2" NPT					R26	R26	R26							R26	R26				
	2.1/2" NPT						R27	R27	R27							R27	R27			
3" NPT							R28	R28	R28	R28						R28	R28			
ISO 7/UNI 6125 (BSPT)	3/8"	R01																		
	1/2"	R21	R21								R21									
	3/4"	R22	R22	R22							R22	R22								
	1"		R29	R29	R29						R29	R29	R29							
	1.1/4"			R30	R30	R30						R30	R30	R30						
	1.1/2"				R25	R25	R25						R25	R25	R25					
	2"					R26	R26	R26						R26	R26	R26				
	2.1/2"						R31	R31	R31					R31	R31	R31				
3"							R28	R28	R28						R28	R28	R28			
DIN 40430 (PG)	PG7																			
	PG9																			
	PG11	R02																		
	PG13.5	R10	R10																	
	PG16	R10	R10																	
	PG21		R16	R16																
	PG29			R17	R17	R17														
	PG36				R18	R18	R18													
PG42					R19	R19														
PG48						R20	R20													
ISO 228 (BSP)	G3/8"	R01																		
	G1/2"	R02	R02								R02									
	G3/4"	R03	R03	R03							R03	R03								
	G1"		R04	R04	R04						R04	R04	R04							
	G1.1/4"			R05	R05	R05						R05	R05	R05						
	G1.1/2"				R06	R06	R06						R06	R06	R06					
	G2"					R07	R07	R07						R07	R07	R07				
	G2.1/2"						R08	R08	R08					R08	R08	R08				
G3"							R09	R09	R09					R09	R09	R09				
B.S. CONE (ET) CONDUIT TO BS31	ET1/2"																			
	ET5/8"	R01																		
	ET3/4"	R02	R02																	
	ET1"	R03	R03	R03							R03	R03								
	ET1.1/4"		R04	R04	R04						R04	R04	R04							
	ET1.1/2"			R05	R05	R05						R05	R05	R05						
	ET2"				R06	R06	R06						R06	R06	R06					
	ET2.1/2"					R07	R07	R07						R07	R07	R07				
ET3"						R08	R08	R08					R08	R08	R08					
ET3.1/2"							R09	R09	R09					R09	R09	R09				

This Certificate has cancelled Certificate No. T121ATEX 104 X dated January 28<sup>th</sup>, 2021.  
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# ATCAB® REDUCER Selection Chart (2):

	ISO 7/UNI 6125 (BSPT)										DIN 40430 (PG)											
	MALE	FEMALE	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	PG7	PG9	PG11	PG13.5	PG16	PG21	PG29	PG36	PG42	PG48	
ISO 262 (MM)	M12X1.5																					
	M16X1.5											R01										
	M20X1.5		R02									R02	R02									
	M25X1.5		R03	R03								R03	R03	R03								
	M32X1.5		R04	R04	R04							R04	R04	R04	R04							
	M40X1.5			R05	R05	R05									R05	R05	R05					
	M50X1.5				R06	R06	R06									R06	R06	R06				
	M63X1.5					R07	R07	R07										R07	R07	R07		
	M75X1.5							R08	R08										R08	R08	R08	
M90X1.5									R09	R09										R09		
USAS 2.1.1968 (NPT)	3/8" NPT																					
	1/2" NPT																					
	3/4" NPT		R22	R22																		
	1" NPT		R23	R23	R23																	
	1.1/4" NPT		R24	R24	R24	R24																
	1.1/2" NPT					R25	R25	R25														
	2" NPT				R26	R26	R26	R26														
	2.1/2" NPT						R27	R27	R27													
3" NPT								R28	R28													
ISO 7/UNI 6125 (BSPT)	3/8"																					
	1/2"		R21																			
	3/4"		R22	R22																		
	1"		R29	R29	R29																	
	1.1/4"			R30	R30	R30																
	1.1/2"				R25	R25	R25															
	2"					R26	R26	R26														
	2.1/2"						R31	R31	R31													
3"								R28	R28	R28												
DIN 40430 (PG)	PG7																					
	PG9																					
	PG11											R02										
	PG13.5											R10	R10									
	PG16											R10	R10	R10								
	PG21													R16	R16							
	PG29														R17	R17	R17					
	PG36															R18	R18	R18				
	PG42																R19	R19	R19			
PG48																	R20	R20	R20			
ISO 228 (BSP)	G3/8"																					
	G1/2"		R01																			
	G3/4"		R03	R03																		
	G1"		R11	R11	R11																	
	G1.1/4"			R12	R12	R12																
	G1.1/2"				R13	R13	R13															
	G2"					R14	R14	R14														
	G2.1/2"						R08	R08	R08													
G3"								R15	R15	R15												
B.S. CONE (ET) CONDUIT TO BS31	ET1/2"																					
	ET5/8"																					
	ET3/4"																					
	ET1"		R03	R03																		
	ET1.1/4"		R04	R04	R04																	
	ET1.1/2"			R05	R05	R05																
	ET2"				R06	R06	R06															
	ET2.1/2"					R07	R07	R07														
	ET3"						R08	R08	R08													
ET3.1/2"								R09	R09	R09												

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**ATCAB® REDUCER Selection Chart (3):**

		ISO 228 (BSP)									B.S. CONE (ET) CONDUIT TO BS31										
		G3/8"	G1/2"	G3/4"	G1"	G1.1/4"	G1.1/2"	G2"	G2.1/2"	G3"	ET1/2"	ET5/8"	ET3/4"	ET1"	ET1.1/4"	ET1.1/2"	ET2"	ET2.1/2"	ET3"	ET3.1/2"	
MALE	FEMALE																				
ISO 262 (MM)	M12X1.5																				
	M16X1.5																				
	M20X1.5	R02									R02										
	M25X1.5	R03	R03								R03	R03									
	M32X1.5	R04	R04	R04							R04	R04	R04								
	M40X1.5			R05	R05							R05	R05								
	M50X1.5				R06	R06							R06	R06							
	M63X1.5					R07	R07							R07	R07	R07					
	M75X1.5						R08	R28						R08	R08	R08	R08				
M90X1.5							R09	R09								R09	R09	R09			
USAS 2.1.1968 (NPT)	3/8" NPT																				
	1/2" NPT	R21									R21										
	3/4" NPT	R22	R22								R22	R22									
	1" NPT	R23	R23	R23							R23	R23	R23								
	1.1/4" NPT		R24	R24	R24							R24	R24	R24							
	1.1/2" NPT			R25	R25	R25							R25	R25	R25						
	2" NPT				R26	R26	R26							R26	R26	R26					
	2.1/2" NPT					R27	R27	R27							R27	R27	R27				
3" NPT						R28	R28	R28								R28	R28	R28			
ISO 7/UNI 6125 (BSPT)	3/8"																				
	1/2"	R21									R21										
	3/4"	R22	R22								R22	R22									
	1"	R29	R29	R29							R29	R29	R29								
	1.1/4"		R30	R30	R30							R30	R30	R30							
	1.1/2"			R25	R25	R25							R25	R25	R25						
	2"				R26	R26	R26							R26	R26	R26					
	2.1/2"					R31	R31	R31							R31	R31	R31				
3"						R28	R28	R28								R28	R28	R28			
DIN 40430 (PG)	PG7																				
	PG9																				
	PG11																				
	PG13.5																				
	PG16																				
	PG21																				
	PG29																				
	PG36																				
	PG42																				
PG48																					
ISO 228 (BSP)	G3/8"																				
	G1/2"																				
	G3/4"	R03	R03								R03	R03									
	G1"	R11	R11	R11							R11	R11	R11								
	G1.1/4"		R12	R12	R12							R12	R12	R12							
	G1.1/2"			R13	R13	R13							R13	R13	R13						
	G2"				R14	R14	R14							R14	R14	R14					
	G2.1/2"					R08	R08	R08							R08	R08	R08				
G3"						R15	R15	R15								R15	R15	R15			
B.S. CONE (ET) CONDUIT TO BS31	ET1/2"																				
	ET5/8"																				
	ET3/4"										R02										
	ET1"	R03	R03								R03	R03									
	ET1.1/4"	R04	R04	R04							R04	R04	R04								
	ET1.1/2"		R05	R05	R05							R05	R05	R05							
	ET2"			R06	R06	R06							R06	R06	R06						
	ET2.1/2"				R07	R07	R07							R07	R07	R07					
	ET3"					R08	R08	R08							R08	R08	R08				
ET3.1/2"							R09	R09	R09							R09	R09	R09			

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**Materials of ATCAB® REDUCER:**

Material composition of Brass BS 2874 CZ121 or IS 319 gr.1:

Contituent	As Per IS - 319 (Grade 1)
Copper (Cu)	56.00 to 59.00 %
Lead (Pb)	2.00 to 3.50 %
Iron (Fe)	0.35%
Aluminium (Alu.)	*
Zinc	Remainder
Total Impurity Max.	0.70%

Material composition of Stainless Steel SS304 or SS316 L:

Contituent	ASTM/ASME 316L	ASTM/ASME 304
Carbon (C)	0.03 Max.	0.08 Max.
Silicon (Si)	0.75 Max.	0.75 Max.
Maganese (Mn)	2.00 Max.	2.00 Max.
Sulfur (S)	0.03 Max.	0.03 Max.
Phosphorus (P)	0.045 Max.	0.045 Max.
Chromium (Cr)	16.0 Min. to 18.0 Max.	18.0 Min. to 20.0 Max.
Nickel (Ni)	10.0 Min. to 14.0 Max.	8.0 Min. to 12.0 Max.
Other	Remainder	Remainder

Material composition of Mild Steel:

Contituent	ASTM/ASME
Carbon (C)	0.475
Silicon (Si)	0.249
Maganese (Mn)	0.570
Sulfur (S)	0.0120
Phosphorus (P)	0.0210
Chromium (Cr)	0.0220
Nickel (Ni)	0.0230
Iron (Fe)	98.6

Silicon material for Sealing Ring:

S. No.	Particulars	Unit	Values
1	Polymer/Rubber	SILICON	
2	Hardness	Shore-A	60 (+3/-3)
3	Specific Gravity	----	1.19±0.02
4	Minimum Tensile Strength	Mpa	7
5	Minimum Elongation at Break	%	280
6	Operating Temperature Range	°C	(-60 To +230)
7	Shelf Life	Month	24

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[16] Report Number:  
 Inspection report No: 825/5/2017  
 Final Test Report No: 825/5/2017  
 Inspection report No.: 1122/5/2021 about verification of change legal status of manufacturer only.

[17] Specific Conditions of Use:

- The REDUCER shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening shall be prevented.
- The REDUCER shall be installed in such a way that temperatures at the mounting point will remain within the following temperature range  $-60^{\circ}\text{C} \leq T_{\text{amb}} \leq +125^{\circ}\text{C}$ .
- Only one REDUCER shall be used per cable entry.
- The IP 67 grade of protection comply with the requirements of the standards listed in the certificate when the REDUCER is fitted to an enclosure having a smooth flat mounting surface. In practice the interface between the male threaded portion of the REDUCER and associated enclosure cannot be defined, therefore it is the user responsibility to ensure that the appropriate ingress protection level is maintained at these interface.
- Please read Installation Instructions for Use ATCAB® REDUCER supplied with the product before installing the product.
- Installation shall be in accordance with requirements of EN60079-14.

[18] Essential Health and Safety Requirements:  
 The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.  
 Additional information: None.

[19] Drawings and Documents:

Number	Sheet	Issue	Date	Description
3001-05	1pg	Rev. No. 00	26.07.2017	Drawing- ATCAB Reducer Selection Chart
3001-06	1pg	Rev. No. 00	26.07.2017	Drawing- ATCAB Reducer Selection Chart
3001-07	1pg	Rev. No. 00	26.07.2017	Drawing- ATCAB Reducer Selection Chart
3001-09	1pg	Rev. No. 00	26.07.2017	Drawing- ATCAB Reducer
3001-10	1pg	Rev. No. 00	26.07.2017	Drawing- ATCAB Reducer - Thread Chart and Declaration
6929	1pg	REV. 00,	22.03.2017	Brass Material Test Report
454	1pg	Rev. No. 00	24.04.2017	Material Test Report- Mild Steel
SIL1960	1pg	Rev. No. 00		Material Data Sheet- Silicon
1256	1pg	Rev. No. 00	01.06.2017	Material Test Report- Stainless Steel
051	1pg		25.07.2017	Factory Test Report- Over pressure Test
046	1pg		25.07.2017	Factory Test Report- Torque test
056	1pg		25.07.2017	Factory Test Report- Impact Test
E-1181	6pgs		27.07.2017	IP rating Test Report- Elca Laboratories
3001-13	1pg	Rev. No. 00	26.07.2017	Installation Instructions ATCAB® REDUCER
24AAVCA2635B1ZW	3pgs	-	07.06.2020	Registration Certificate with new legal status

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Bratislava, August 16<sup>th</sup>, 2021

*V. J.*  
 JUDr. Vladimír Jurík  
 General Director

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