EU TYPE-EXAMINATION CERTIFICATE

1. **EU type-examination Certificate (Module B)**
2. **Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)**
3. **EU type examination certificate Nr** **ITS-I 19 ATEX 24540X**
4. **Product:** Hermetic Panel Mount Receptacle
5. **Manufacturer:** Amphenol Industrial Operations
6. **Address:** 40-60 Delaware St
   Sidney, New York. 13838
   USA
7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.
8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

   The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 103810434CRT-001T dated 7th of July 2020.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0: 2018 EN 60079-1:2014, EN 60079-7:2015, and EN 60079-31:2014 except in respect of those requirements referred to at item 16 of the Schedule.
10. If the sign X is placed after the certificate number, it indicates that the product is subject to Special Conditions for Safe 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 the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
12. The marking of the product shall include the following:

II 2G Ex db eb IIC T6 Gb
II 2G Ex db eb IIC T5 Gb
II 2G Ex db eb IIC T4 Gb
II 2D Ex tb IIIC T85°C Db IP66/68
II 2D Ex tb IIIC T95°C Db IP66/68
II 2D Ex tb IIIC T135°C Db IP66/68

July 16, 2020

Certificate issue date

Alessandro Savio
Certification Officer
Intertek Italia S.p.A. (NB 2575)

PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

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13. **DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM**

Hermetic Panel Mount Receptacle EXS-17***, EXS -18***, 'Starline' EX Range Panel Mounted Receptacle.
These receptacles are a stainless steel body intended to be mounted on a pressurized panel box.
The receptacles and mating connectors form a plain spigot joint with their associated flameproof apparatus

The Shell bodies range in size (12, 16, 20, C20, 24, C24, 28, C28) each contain an insert assembly [insulator with contacts (pins/sockets)] at one end and a certified cable gland at the other. The plug and socket, when connected, form a flame path and are mechanically interlocked by means of a threaded nut retained by a grub screw. The connector shell size, pin configuration and rating are reflected in the individual type designations.
The 'Ex e' part of the coding really only applies to the interface so that the equipment can be connected to an Ex e enclosure.
Amperage is always limited to 1135A, if the shell size admits an Amperage that is higher than 1135A the temperature class is T4 and the limit is 1135A.
A de-rating is required for equipment with more than 3 conductors as indicated in the following tables and in section 15.

Standard Range
Ta = -40 ˚C to +45 ˚C = T6 (Amperage range: 0-259A), IIIC T85 ˚C
Ta = -40 ˚C to +55 ˚C = T5 (Amperage range: 259-408A), IIIC T95 ˚C
Ta = -40 ˚C to +55 ˚C = T4 (Amperage range: 408-1135A), IIIC T135 ˚C

Arctic Range
Ta = -60 ˚C to +45 ˚C = T6 (Amperage range: 0-259A), IIIC T85 ˚C
Ta = -60 ˚C to +55 ˚C = T5 (Amperage range: 259-408A), IIIC T95 ˚C
Ta = -60 ˚C to +55 ˚C = T4 (Amperage range: 408-1135A), IIIC T135 ˚C

	Connector Style	Description	Ambient temp (C)	Temp Class	Gas Marking	Dust Marking	Amperage restriction	CABLE/COND. RATING (MIN. TEMP.) DWG 10-838527-000
Non Arctic Range	17-H	Square flange	-40 to +40	T6	Ex db eb IIC T6 Gb	Ex tb IIIC T80°C Db IP66/68	0-259A Note A, B and C	90°C
	18-H6	Round flange, 6 hole						
	18-H8	Round flange, 8 hole						
	17-H	Square flange	-40 to +55	T5	Ex db eb IIC T5 Gb	Ex tb IIIC T95°C Db IP66/68	259-408A Note A, B and C	90°C
	18-H6	Round flange, 6 hole						
	18-H8	Round flange, 8 hole						
	17-H	Square flange	-40 to +55	T4	Ex db eb IIC T4 Gb	Ex tb IIIC T135°C Db IP66/68	408-1135A Note A, B and C	135°C
	18-H6	Round flange, 6 hole						
	18-H8	Round flange, 8 hole						
Arctic Range	17-H	Square flange	-60 to +40	T6	Ex db eb IIC T6 Gb	Ex tb IIIC T80°C Db IP66/68	0-259A Note A, B and C	90°C
	18-H6	Round flange, 6 hole						
	18-H8	Round flange, 8 hole						
	17-H	Square flange	-60 to +55	T5			259-408A	90°C

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	18-H6	Round flange, 6 hole			Ex db eb IIC T5 Gb	Ex tb IIIC 95°C Db IP66/68	Note A, B and C	
	18-H8	Round flange, 8 hole						
	17-H	Square flange	-60 to +55	T4	Ex db eb IIC T4 Gb	Ex tb IIIC T135°C Db IP66/68	408-1135A Note A, B and C	135°C
	18-H6	Round flange, 6 hole						
	18-H8	Round flange, 8 hole						
NOTE A:	**WHEN USING CABLES WITH 3 CONDUCTORS OR LESS: AMPERAGE LIMITED TO SHELL SIZE AND NEVER GREATER THAN 1135A IN ANY CASE.**							
NOTE B:	**WHEN USING CABLES WITH 3 CONDUCTORS OR MORE: MAXIMUM CURRENT IS DERATED ACCORDING TO NEC TABLE 310.15(B)(3)(a)**							
NOTE C:	**AMPERAGE RESTRICTION IS BASED ON SINGLE PIN CONFIGURATION AND USED FOR DERATING ACCORDING TO CABLE TEMPERATURE AND AMBIENT TEMPERATURE**							

Electrical Ratings of the 'Starline' and EX-*-17/ EX-*-18 'Starline' Connectors

Shell Size	Max. Total Current
12	**210 A**
16	**570 A**
20/C20	**1110 A**
24/C24	**1740 A**
28/C28	**1420 A**

Pin Size	Max. Current
18 AWG	3 A
16 AWG	16 A
12 AWG	30 A
10 AWG	40 A
8 AWG	50 A
4 AWG	90 A
1/0 AWG	155 A
4/0 AWG	225 A
350 MCM	325 A
500 MCM	750 A
646 MCM	940 A
777 MCM	1135 A

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Model Number Break Down

Ex	#	-	##	-	#	-	#	-	##	-	###	-	#	-	#	-	##
1	2		3		4		5		6		7		8		9		10

1	Starline Ex series Identification
2	Material S- Stainless Steel Omit for aluminum
3	Shell Type 17 RCPT Panel mount (potting adapter) 18 RCPT Circular panel mount 6 hole 18 RCTP Circular panel mount 8 hole (nonthreaded potting adapter)
4	omit
5	H- Hermetic H6 Hermetic 6 Hole H8 Hermetic 8 hole
6	Shell size – 12, 16, 20, C20, 24, C24, 28, C28
7	Contact insert
8	Contact gender P – Pin
9	Termination Style N- Crimp Omit for solder
10	Omit for Standard AR – Arctic temperature range

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

14. **DRAWINGS AND DOCUMENTS**

TITLE	DOCUMENT Nr	LEVEL	DATE
Amphenol Star-line Ex Assembly Instructions	L-2120-3	Rev J	11/13/2017
HERMETIC EXPLOSION PROOF PLUG-RECEPTACLE ASSEMBLY	10-756552	B	10/9/2019
Software, Label, Format ATEX/IECEx Starline IECEx Series	10-718222	A	8/20/2019

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

15. **SPECIAL CONDITIONS FOR SAFE USE**

i. The panel mounted variants may be installed in suitably certified and dimensioned flameproof equipment providing that the certification of this flameproof equipment will allow such installation. The plug connectors that mate with the EX Hermetic Receptacles, are covered under SIRA certificates, IECEx SIR 10.0064X / Sira 03ATEX1101X

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ii. The panel mounted variants may be fitted in an increased safety enclosure when the free internal space is filled with epoxy resin and providing the certification of the enclosure will allow such installation. An electric strength test in accordance with IEC 60079-7:2007 Clause 7.1 will be performed on each unit after installation of the epoxy resin.

iii. The EXS-17 and EXS-18 range of panel-mounted variants may be installed in a suitably certified and dimensioned flameproof equipment providing that the certification of this flameproof equipment will allow such installation. They have the following dimensioned spigot joints and are suitable for Group IIA, IIB or IIC, dependent upon the associated apparatus entry dimensions.

iv. The Ex-18 range connector does not incorporate an external earth facility. It is the responsibility of the user or installer to ensure adequate earth continuity by means of guidance given within the manufacturer's installation instructions.

v. If an application requires special, continuity features, within certain connector components, seek factory opinion regarding conductive hardware options. Final configurations are the electrical system designers responsibility, as they best understand the intricacies that make up their particular electrical system, and the environment in which they exist.

vi. the rate current shall be reduced as per following indication:

- WHEN USING CABLES WITH 3 CONDUCTORS OR MORE: MAXIMUM CURRENT IS DERATED ACCORDING TO NEC TABLE 310.15(B)(3)(a)

Table 310.15(B)(3)(a) Adjustment Factors for More Than Three Current-Carrying Conductors

Number of Conductors[1]	Percent of Values in Table 310.15(B)(16) through Table 310.15(B)(19) as Adjusted for Ambient Temperature if Necessary
4–6	80
7–9	70
10–20	50
21–30	45
31–40	40
41 and above	35

- WHEN USING CABLES WITH 3 CONDUCTORS OR LESS: AMPERAGE LIMITED TO SHELL SIZE AND NEVER GREATER THAN 1135A IN ANY CASE
- AMPERAGE RESTRICTION IS BASED ON SINGLE PIN CONFIGURATION AND USED FOR DERATING ACCORDING TO CABLE TEMPERATURE AND AMBIENT TEMPERATURE

16. **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS**

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. 103810434CRT-001T (ATEX EU Type Examination Report)

17. **ROUTINE (FACTORY) TESTS**

None

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18. **DETAIL OF CERTIFICATE CHANGES**

None