



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX CML 19.0110X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-04-22

Applicant: **AMPHENOL EEC, INC.**
1701 Birchwood Ave
Des Plaines, Illinois 60018
United States of America

Equipment: **Type EX-50* and EX-55* Range of Cable Glands**

Optional accessory:

Type of Protection: **Ex db, Ex eb, Ex ta**

Marking: Ex db IIC Gb
Ex eb IIC Gb
Ex ta IIIC Da

Approved for issue on behalf of the IECEx
Certification Body:

A Snowdon MIET

Position:

Assistant Certification Manager

Signature:
(for printed version)

A Snowdon

Date:

2021-04-22

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Page 2 of 3

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Manufacturer: **AMPHENOL EEC, INC.**
1701 Birchwood Ave
Des Plaines, Illinois 60018
United States of America

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/CML/ExTR19.0208/00](#)

Quality Assessment Report:

[GB/SIR/QAR08.0010/09](#)



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Certificate No.: **IECEX CML 19.0110X**

Page 3 of 3

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The EX-55 may be used with any cable type where sealing and retention is required by gripping the outer sheath (this includes armoured/ screened/braided cables, the armour/screen/braid being clamped inside the terminating equipment).

The EX-50 model has an additional clamp to grip copper braid and woven steel wire armour, which seals and grips the inner and outer sheaths.

Refer to Annex for full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for Specific Conditions of Use.

Annex:

[Certificate Annex IECEx CML 19.0110X Iss0.pdf](#)

Annexe to: IECEx CML 19.0110X, Issue 0
Applicant: Amphenol EEC, Inc.
Apparatus: Type EX-50* and EX-55* Range of Cable Glands



Description

These cable glands are intended for use with flat profile cables.

The EX-55 may be used with any cable type where sealing and retention is required by gripping the outer sheath (this includes armoured/screened/braided cables, the armour/screen/braid being clamped inside the terminating equipment).

The EX-50 model has an additional clamp to grip copper braid and woven steel wire armour, which seals and grips the inner and outer sheaths.

Construction materials are brass, mild steel or stainless steel. In all cases, the seal materials are silicone. Glands are available in the size range 20S, 20R and 20 with an M20 x 1.5 and M25 X 1.5 metric entry thread. Alternative equivalent size entry thread forms are available. The glands have an ingress protection rating of IP66 and IP68 (50 metres 7 days).

The EX-55F and EX-55M model series variant to the EX-55 series additionally provides, via an alternative cap component, male or female connection to solid rigid conduit or flexible metallic conduit The EX-55C model series variant to the EX-55 series additionally provides, via an alternative compression bush component, male connection to galvanised steel or stainless steel, unsheathed or protective sheathed, flexible metallic conduit.

The EX-50F and EX-50M model series variant to the EX-50 series additionally provide, via an alternative cap component, male or female connection to solid rigid conduit or flexible metallic conduit.

Type EX-55 / EX-55F and EX-55M Cable Glands

Gland Size	Standard Entry Threads		Outer Sheath Data			
	Metric	NPT	Min		Max	
			A	B	A	B
20S	M20	½"	6.3	4.0	11.7	7.0
20	M20	½"	10.3	5.6	13.5	9.0
20R	M20	½"	8.1	5.8	13.5	6.2
25	M25	¾"	10.6	4.0	16.2	7.0

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Type EX-55C Cable Glands:

Gland Size	Standard Entry Threads		Outer Sheath and Conduit Data					
	Metric	NPT	Cable Sheath Data				Conduit Data	
			Min		Max		Typical Conduit ID	Max Conduit OD
			A	B	A	B		
20S-1	M20	1/2"	6.3	4.0	11.2	7.0	13.0	17.1
20S-2	M20	1/2"	6.3	4.0	11.7	7.0	15.0	19.3
20S-3	M20	1/2"	6.3	4.0	11.7	7.0	16.9	21.5
20-1	M20	1/2"	10.3	5.6	11.2	9.0	13.0	17.1
20-2	M20	1/2"	10.3	5.6	13.5	9.0	15.0	19.3
20-3	M20	1/2"	10.3	5.6	13.5	9.0	16.9	21.5
20R-1	M20	1/2"	8.1	5.8	11.2	6.2	13.0	17.1
20R-2	M20	1/2"	8.1	5.8	13.5	6.2	15.0	19.3
20R-3	M20	1/2"	8.1	5.8	13.5	6.2	16.9	21.5
25-1	M25	3/4"	10.6	4.0	16.2	7.0	16.9	23.8
25-2	M25	3/4"	10.6	4.0	16.2	7.0	18.7	24.8
25-3	M25	3/4"	10.6	4.0	16.2	7.0	21.1	26.8
25-4	M25	3/4"	10.6	4.0	16.2	7.0	20.7	27.8

Type EX-50 / EX-50F and EX-50M Cable Glands:

Gland Size	Standard Entry Threads		Inner Sheath Range				Outer Sheath Range				Armour Wire Dia.	
	Metric	NPT	Min		Max		Min		Max		Min	Max
			A	B	A	B	A	B	A	B		
20S	M20	1/2"	6.3	4.0	11.7	7.0	7.9	4.5	11.7	7.0	0.1	0.3
20	M20	1/2"	10.3	5.6	13.5	9.0	11.0	4.5	13.5	9.0	0.1	0.3
20R	M20	1/2"	8.1	5.8	13.5	6.2	10.7	5.4	16.1	8.3	0.1	0.3

Note: A = width and B = thickness



Notes:

Certificate IECEX SIR 07.0106X is superseded by certificate IECEX CML 19.0110X.

The product covered by Issue 0 of this certificate remains identical to that previously covered by IECEX SIR 07.0106X.

Where IECEX SIR 07.0106X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required

Conditions of Manufacture

None.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. The EX-55, EX-55F, EX-55M, EX-55C, EX-50, EX-50F and EX-50M ranges of cable glands shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -60°C to +180°C.
- ii. The EX-55, EX-55F, EX-55M, EX-55C, EX-50, EX-50F and EX-50M ranges of cable glands shall only be used for fixed installations, in addition, the cables shall be effectively clamped to prevent pulling or twisting.
- iii. The EX-55, EX-55F, EX-55M, EX-55C, EX-50, EX-50F and EX-50M ranges of cable glands, when installed in accordance with the manufacturer's instructions and with an appropriate enclosure on which they are fixed, are capable of providing an ingress protection of IP66 and IP68 (50 metres 7 days).
- iv. The threaded entry component threads without interface O-ring seals installed in an explosive dust atmosphere, within threaded entries, shall only be fitted into enclosures that have either:
 - parallel entries that will ensure that a minimum of 5 full threads of contact will be maintained, this is in accordance with clause 5.1.2 of IEC 60079-31:2013.
 - tapered entries that will ensure that a minimum of 3 ½ full threads of contact will be maintained, this is in accordance with clause 5.1.2 of IEC 60079-31:2013.

Components covered by Ex Certificates issued to older editions of Standards

None.