



EU Type Examination Certificate CML 16ATEX1069X Issue 2

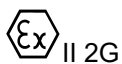
- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **HDE Series Connectors - Plugs and Receptacles**
- 3 Manufacturer **Amphenol EEC Inc.**
- 4 Address 1701 Birchwood Ave.
Des Plaines, IL 60018,
USA
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, 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 equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012 + A11:2013

EN 60079-1:2014

EN 60079-7:2015

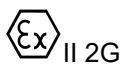
- 10 The equipment shall be marked with the following:



II 2G

Ex db IIC T5 or T6 Gb

Ta = -55/-20°C to +40/+50/+60°C



II 2G

Ex db eb IIC T5 or T6 Gb

Ta = -55/-20°C to +40/+50/+60°C



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11 Description

The HDE Series Connectors are Plugs and Receptacles with quick snap action intended for industrial applications. The connectors are available in aluminium or 316 grade stainless steel. Male and Female connectors are available in multiple pin configurations. The series includes an optional junction box for fixed applications. The following models are covered by this certificate,

HDE1-22-3-44-55-66678-99-10-L11

Where:

- 1 - Material
- 2 - Shell Style
- 3 - Cable Retention Style
- 4 - Gland Size/Grommet/Junction Box
- 5 - Shell Size
- 6 - Insert Configuration
- 7 - Contact Gender
- 8 - Contact Termination Style
- 9 - Optional Alternate Insert Key Position
- 10 - Color Coding
- L11 - Pigtail Length

The permitted temperature class and ambient temperature is dependent on the maximum power dissipated by the connector.

Connector Shell Size Code	Maximum Permitted Power Dissipation					
	Upper Ambient Temperature of +40°C		Upper Ambient Temperature of +50°C		Upper Ambient Temperature of +60°C	
	Temperature Class		Temperature Class		Temperature Class	
	T6	T5	T6	T5	T6	T5
16	39.6W	52.8W	30.2W	43.2W	14.6W	25.6W
20	52.1W	69.4W	37.2W	53.1W	17.1W	29.8W
24	64.3W	85.1W	47.0W	67.1W	24.1W	42.1W
28	79.5W	106.1W	57.3W	81.8W	29.8W	52.2W



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Variation 1

This issue introduced the following changes:

1. To update the manufacturers address

To:	From:
1701 Birchwood Ave.	4050 North Rockwell Street,
Des Plaines, IL 60018,	Chicago, IL 60618
USA	USA

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	17/05/2017	R1175A/00	Issue of prime certificate
1	10/02/2021	R13833A/00	To introduce Variation 1
2	12/08/2021	-	Re-issued to correct a typographic error

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

None

14 Specific Conditions of Use (Special Conditions)

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

- 14.1 Cable Glands and blanking plugs used in the assembly shall be separately certified ATEX equipment, marked Ex db IIC Gb and Ex eb IIC Gb, suitable for at least the lower ambient temperature and an upper service temperature of +85°C.
- 14.2 The connectors must be electrically isolated before connecting or disconnecting the connector halves.
- 14.3 Protective covers must be secured when the connectors are not engaged.
- 14.4 End user shall verify creepage and clearance requirements from EN 60079-7:2015 are satisfied based on the working voltage of the intended installation when used in an Ex e application.
- 14.5 End user shall ensure that the dielectric strength test from EN 60079-7:2015 Clause 7.1 is satisfied before installation when used with in an Ex e application.

Certificate Annex

Certificate Number CML 16ATEX1069X
Equipment HDE Series Connectors - Plugs and Receptacles
Manufacturer Amphenol EEC Inc.



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
GB10-4004-29	1 of 1	-	17/05/2017	CONTACT, COMPONENT - PRESSURE PAD ASSEMBLY #4 WIRE
GB-3016-23F	1 of 1	-	17/05/2017	MALE INSULATION FRONT 4-POLE, SIZE 16
GB-4004-28	1 of 1	-	17/05/2017	CONTACT, COMPONENT – WIRE CLAMP ASSEMBLY #4 WIRE
GB-4004-28E	1 of 1	A	17/05/2017	CONTACT, COMPONENT – WIRE CLAMP ASSEMBLY #4 WIRE
GB-4004-29E	1 of 1	-	17/05/2017	PRESSURE PAD #4 WIRE CLAMP
GB-4104-36LL	1 of 1	-	17/05/2017	#4 FEMALE LINE CONTACT CRIMP STYLE
GB-4904-39LO	1 of 1	A	17/05/2017	#4 GROUND FEMALE CONTACT CRIMP STYLE
GD-3116-23F	1 of 1	A	17/05/2017	FEMALE INSULATION FRONT 4-POLE, SIZE 16
GD-4004-26LL	1 of 1	-	17/05/2017	LINE CONTACT MALE PRESSURE #4 WIRE
GD-4804-27LOP	1 of 1	-	17/05/2017	GROUND CONTACT MALE PRESSURE #4 WIRE POLARIZING (WITHOUT GROUND CLIP)
HDC-7016-12A	1 of 1	-	17/05/2017	CARRIER, FRONT
HDC-7016-13A	1 of 1	-	17/05/2017	CARRIER, BACK
HDE-1016-11A	1 of 1	D	17/05/2017	PLUG SHELL, MALE
HDE-1016-21A	1 of 1	D	17/05/2017	PLUG SHELL, MALE ('C' LENGTH)
HDE-1016-3716M	1 of 1	-	17/05/2017	PLUG ASSEMBLY EExd IIC T6
HDE-1016-44M	1 of 1	-	17/05/2017	PLUG ASSEMBLY EExd IIC T6
HDE-15-2016-10A	1 of 1	A	17/05/2017	CABLE ADAPTER
HDE-15-2816-10A	1 of 1	-	17/05/2017	CABLE ADAPTER
HDE-15-6-0816-3716FL	1 of 1	-	17/05/2017	IN LINE RECEPTACLE
HDE-1716-11S	1 of 1	-	17/05/2017	RECEPTACLE HOUSING
HDE-1716-3716F	1 of 1	-	17/05/2017	FLAMEPROOF JUNCTION BOX, EExd IIC, T6

Certificate Annex

Certificate Number CML 16ATEX1069X
Equipment HDE Series Connectors - Plugs and Receptacles
Manufacturer Amphenol EEC Inc.



Drawing No	Sheets	Rev	Approved date	Title
HDE-1916-11S-68098	1 of 1	-	17/05/2017	REDUCED NOSE RECEPTACLE HOUSING
HDE-1916-11S	1 of 1	A	17/05/2017	RECEPTACLE HOUSING
HDE-1916-21S	1 of 1	A	17/05/2017	RECEPTACLE HOUSING
HDE-1916-3716F	1 of 1	B	17/05/2017	RECEPTACLE HOUSING, NPT MOUNT AND PLUG SHELL ASSEMBLY EExd IIC T6
HDE-2516-10A	1 of 1	B	17/05/2017	COVER, EXPLOSION PROOF JUNCTION BOX SHELL SIZE #12, #16 & #20 IIC T6
HDE-2416-A	1 of 1	C	17/05/2017	CABLE ADAPTER, NPT GLAND
HDE-5516-20A	1 of 1	-	17/05/2017	PROTECTIVE COVER, PLUG
HDE-5616-13A	1 of 1	-	17/05/2017	PROTECTIVE COVER SLEEVE
HDE-5616-14A	1 of 1	-	17/05/2017	DUST COVER INNER CORE
HDE-5616-N	1 of 1	-	17/05/2017	PROTECTIVE COVER ASSEMBLY, RECEPTACLE
HDE-7016	1 of 1	-	17/05/2017	COUPLING SLEEVE ASSEMBLY EXPLOSION PROOF EExd IIC T6
HDE-7016-11A	1 of 1	-	17/05/2017	COUPLING SLEEVE EXPLOSION PROOF EExd IIC T6
HDE-7516-11A	1 of 1	-	17/05/2017	CIRCULAR FLANGE ADAPTER, EXPLOSION PROOF EExd IIC T6
HDE-7516-12A	1 of 1	-	17/05/2017	NPT ADAPTER EXPLOSION PROOF EExd IIC T6
HDE-7516-13F	1 of 1	-	17/05/2017	INSULATION
HDE-9016-X	1 of 1	B	17/05/2017	EXPLOSION PROOF JUNCTION BOX, SHELL SIZE #12, #16 & #20 IIC T6
SL-16-21	1 of 1	B	17/05/2017	INSULATION PLANFORM #16-21 SHELL SIZE 16, WITH 37 CONTACTS, 16 AWG
HDS-31XX-2XXF	1 of 1	C	17/05/2017	FRONT RIGID INSULATION FEMALE
HDS-39XX-2XXN	1 of 1	-	17/05/2017	BACK CAP, FEMALE
HDS-4016-36L	1 of 1	A	17/05/2017	#16 AWG MALE PIN, LINE CONTACT (CRIMP)
HDS-4116-36L	1 of 1	-	17/05/2017	#16 FEMALE GROUND & LINE CONTACT ASSEMBLY (CRIMP)
P-204975-12BA	1 of 1	A	17/05/2017	BACK ADAPTER
HDS-30XX-2XXF	1 of 1	D	17/05/2017	FRONT RIGID INSULATION MALE

Certificate Annex

Certificate Number CML 16ATEX1069X
Equipment HDE Series Connectors - Plugs and Receptacles
Manufacturer Amphenol EEC Inc.



Drawing No	Sheets	Rev	Approved date	Title
SL-3216-23F	1 of 1	-	17/05/2017	MALE INSULATION, BACK 4-POLE, SIZE 16
SL-3316-10D	1 of 1	-	17/05/2017	CENTER INSULATION, RESILIENT
SL-3316-21D	1 of 1	-	17/05/2017	CENTER INSULATION, RESILIENT
SL-7312-10A	1 of 1	-	17/05/2017	GLAND NUT
SL-7312-11A	1 of 1	A	17/05/2017	GLAND NUT, HEX
HDE-9500-10	1 of 1	A	17/05/2017	LABEL HDE SERIES
HDE-2416-A	1 of 1	B	17/05/2017	CABLE ADAPTER, MECHANICAL CLAMP

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
HDE-9500-10	1 of 1	C	10/02/2021	LABEL HDE SERIES

Issue 2

No new drawings