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 QPS 12.0002X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 4	Issue 3 (2017-07-07) Issue 2 (2016-02-26) Issue 1 (2015-04-26) Issue 0 (2012-06-06)
Date of Issue:	2020-12-22		
Applicant:	**AMPHENOL EEC, INC.** 1701 Birchwood Ave Des Plaines, IL 60018 **United States of America**		
Equipment:	**EFP Series Electrical Connectors**		
Optional accessory:			
Type of Protection:	**'d' "e"**		
Marking:	IECEx QPS 12.0002X Ex db IIC T5 or T6 Gb or Ex db eb IIC T5 or T6 Gb IP68 1000 V Max, 2157A Max ta= -55°C/-40°C to 40°C/50°C/60°C		

Approved for issue on behalf of the IECEx Certification Body: **Dave Adams**

Position: **Manager, Hazardous Locations Department [Ex Equipment]**

Signature: (for printed version)

Date:

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:

QPS
Evaluation Services Inc.
81 Kelfield St
Unit 8
Toronto, Ontario M9W 5A3
Canada

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Date of issue: 2020-12-22

Issue No: 4

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

Additional manufacturing locations:

DRAKA MARINE OIL AND GAS, PRYSMAIN GROUP
1610 GREENS ROAD, SUITE 300
HOUSTON, TX 77032
United States of America

CCS Connector and Cable Specialties
4325 FM 2351
Building 2, Ste 200
Friendswood, TX 77546
United States of America

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 60079-0:2007-10 Explosive atmospheres - Part 0:Equipment - General requirements
Edition:5

IEC 60079-1:2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

IEC 60079-7:2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

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 Reports:

CA/QPS/ExTR11.0001/02 CA/QPS/ExTR11.0001/03 CA/QPS/ExTR11.0001/04

Quality Assessment Reports:

CA/QPS/QAR15.0001/03 NO/PRE/QAR15.0023/04

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

EFP Series

EFP-1-22-33-444444-55-66667899-10-11

Where:

1-Connector Style

2-Shell Type

3-Cable Adaptor Styles

4-Sealing Method

5-Shell Size

6-Conductor Size

7 Contact Gender

8 Termination Style

9-Insert Orientation

10-Color Coding

11-Variations

Note: Connector Style “T” is not permitted

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Cable Glands used in the assembly shall be IECEx certified components with equivalent or superior ratings to those marked on the connectors and suitable for the supplied cable

2. The connectors must be electrically isolated before connecting or disconnecting the connector halves

3. Protective covers must be secured when the connectors are not engaged

4. End user shall verify creepage and clearance requirements from IEC 60079-7 are satisfied based on the working voltage of the intended installation when used with an Ex e rated device

5. End user shall ensure that the dielectric strength test from IEC 60079-7 clause 7.1 is satisfied before installation when used with an Ex e rated device

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Equipment (continued):

The temperature class and ambient temperature can be varied based on the maximum wattage in the connector. The maximum wattage is determined from the maximum current and resistance values of the conductors used in the connector using ohm's law and industry standards for resistive values of the conductors.

Connector	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
12	23.8	31.7	17	24.3	10.7	18.7
16	39.6	52.8	30.2	43.2	14.6	25.6
20	52.1	69.4	37.2	53.1	17.1	29.8
24	64.3	85.1	47	67.1	24.1	42.1
28	79.5	106.1	57.3	81.8	29.8	52.2

Note: the ambient temperature can be extended down to -55°C when potted with Hysol EE4183

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
issue 4:change in Applicant's/Manufacturer's address and addition of "CCS Connector and Cable Specialties" as additional manufacturing location and revise marking label to include new manufacturer address and include "db" and "eb" marking.