



IECEx certificate:

LCIE 16.0054X


for CP7xx

EN



Meggitt SA
Route de Moncor 4
PO Box 1616
CH - 1701 Fribourg
Switzerland

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**IECEX Certificate
of Conformity**

Certificate No: **IECEX LCIE 16.0054X** Issue No: 0
 Date of Issue: **2017-02-09** Page 2 of 3
 Manufacturer: **MEGGITT SA**
 Route de Moncor 4
 1752 Villars-sur-Glâne
Switzerland

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Explosive atmospheres - Part 0: General requirements
 Edition:6.0
IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
 Edition:6.0
IEC 60079-15 : 2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
 Edition:4

This Certificate does not indicate compliance with electrical 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:
 FR/LCIE/EXTR/16.0086/00
 Quality Assessment Report:
 FR/LC/QR06.0006/09



**IECEX Certificate
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**INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres**
 for rules and details of the IECEx Scheme visit www.iecex.com


Certificate No.: **IECEX LCIE 16.0054X** Issue No: 0 Certificate history: Issue No. 0 (2017-02-09)
 Status: **Current** Page 1 of 3
 Date of Issue: **2017-02-09**
 Applicant: **MEGGITT SA**
 Route de Moncor 4
 1752 Villars-sur-Glâne
Switzerland

Equipment: **Dynamic Pressure Sensor - Type: 145-7XX-000-YYY**
 Optional accessory:

Type of Protection: **Ex Ia, Ex nA**
 Marking:
 Ex ia IIC T6..714°C Gc
 Ex nA IIC T6..714°C Gc
 (Refer to attachment for full marking)


Approved for issue on behalf of the IECEx Certification Body: **Julien GAUTHIER**
 Position: **Certification Officer**

Signature: *(for printed version)*
 Date: **2017-02-09**



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 the Official IECEx Website.

Certificate issued by:
Laboratoire Central des Industries Electriques (LCIE)
 33 Avenue du General Leclerc
 FR-92280 Fontenay-aux-Roses
 France





**Annex 01 to Certificate
IECEX LCIE 16.0054X issue 00**



ADDITIONAL EQUIPMENT DESCRIPTION

Ex ia protection:			
N°	Description	Reference	Rev.
1	Technical file	DT-1072	00
2	Instructions notice	PZ8779	00
Ex nA protection:			
N°	Description	Reference	Rev.
1	Technical file	DT-1073	00
2	Instructions notice	PZ8779	00

Ex ia protection:			
N°	Description	Reference	Rev.
1	Technical file	DT-1072	00
2	Instructions notice	PZ8779	00
Ex nA protection:			
N°	Description	Reference	Rev.
1	Technical file	DT-1073	00
2	Instructions notice	PZ8779	00

MARKING

Ex ia protection:

Full marking:
MEGGITT SA or MFR S3960
Address:
Type: 143-7XX-000-YYY
Serial number: ...
Ex ia IIC T6...714°C Ga (1)
IECEX LCIE 16.0054X
Linear source:
U: 28V; I: 100mA; P: 0.7W; C: 300pF + 250pF/m; Li: 1µH/m or Li/R: 30µH/Q
Non linear source:
U: 28V; I: 25mA; P: 0.7W; C: 300pF + 250pF/m; Li: 1µH/m
(1): see temperature class in Condition of certification.

Reduced marking:

MEGGITT SA or MFR S3960
Type: 143-7XX-000-YYY
Ex ia IIC T6...714°C Ga (1)
IECEX LCIE 16.0054X
(1): see temperature class in Condition of certification.

Ex nA protection:

Full marking:
MEGGITT SA or MFR S3960
Address:
Type: 143-7XX-000-YYY
Serial number: ...
Year of construction: ...
Ex nA IIC T6...714°C Gc (1)
IECEX LCIE 16.0054X
WARNING – DO NOT SEPARATE WHEN ENERGIZED
(1): see temperature class in Condition of certification.

Reduced marking:

MEGGITT SA or MFR S3960
Type: 143-7XX-000-YYY
Ex nA IIC T6...714°C Gc (1)
IECEX LCIE 16.0054X
(1): see temperature class in Condition of certification.

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This Annex is valid only in combination with certificate mentioned above and may only be reproduced in its entirety and without any change. CERT-A-TEK-FORM-14 Rev. 01

**IECEX Certificate
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Certificate No: IECEX LCIE 16.0054X Issue No: 0
Date of Issue: 2017-02-09 Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The apparatus is a dynamic pressure sensor with piezoelectric crystal. It is equipped with a cable or a connector which is linked to an external power source. Sensor head and connector are made of metallic materials. Metallic armored cable includes mineral insulation.

CONDITIONS OF CERTIFICATION: YES as shown below:

For both Ex ia and Ex nA protection:

- Ambient temperature range: -200°C to +704°C.
- The mounting of the apparatus into an installation must be carried out in such a way that metallic body of the sensor is reliably connected to the system earth.
- Temperature class depends on ambient temperature. Refer to attachment for detail.

For Ex ia protection:

- The equipment must be only connected to a certified associate intrinsically safe equipment. This combination must be compatible as regards intrinsic safety rules (see intrinsic safety parameters).
- Cable length must be defined in such a way that total capacitance of sensor and cable does not exceed the maximum capacitance permitted of certified power supply.

For Ex nA protection:

- The equipment must only be connected to an external source with 32VDC maximum voltage.
- The connector of the equipment presents a reduced protection degree. According to the clause 6.3.1 of IEC 60079-15 standard, the connection shall be made in location providing adequate protection against the entry of solid foreign objects or water capable of impairing safety.
- WARNING – DO NOT SEPARATE WHEN ENERGIZED

Annex

LCIE 16.0054X - Issue 00 - Annex 01.pdf



**Annex 01 to Certificate
 IECEx LCIE 16.0054X issue 00**



RATINGS

Ex ia protection:

IS parameters for linear source:
 U_i: 28V; I_i: 100mA; P_i: 0.7W; C_i: 300pF + 250pF/m; L_i: 1μH/m or L_i/R_i: 30μH/Ω
 IS parameters for non-linear source:
 U_i: 28V; I_i: 25mA; P_i: 0.7W; C_i: 300pF + 250pF/m; L_i: 1μH/m

Ex nA protection:

Maximum input voltage U_{max}: 32V_{dc}

RANGE DETAILS

Type is 143-7XX-000-YYY (XX and YYY variable parts)

- XX define the shape of the sensor head (x = 0 to 9)

- YYY depends on the connector type or cable length (y = 0 to 9)

ADDITIONAL CONDITIONS OF CERTIFICATION

Temperature class depends on the maximum ambient temperature as follows:

T _{amb max}	Temperature class
-200°C to +80°C	T6
+81°C to +95°C	T5
+96°C to +130°C	T4
+131°C to +185°C	T3
+186°C to +290°C	T2
+291°C to +440°C	T1
+441°C to +xxx°C (xxx°C ≤ 704°C)	xxx+10°C (≤ 714°C)

ROUTINE TESTS

Ex ia protection: None

Ex nA protection: Each equipment shall be submitted to the dielectric strength test according to the clause 23.2.1 of IEC 60079-15:2010, Edition 4. Test voltage shall be applied between active electrical signals and the enclosure.

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