



---

**cCSAus certificate:**

EN

**70198728**

**for**


**IPC707**

---



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

**THIS PAGE INTENTIONALLY LEFT BLANK**




# Certificate of Compliance

**Master Contract:** 175074  
**Date Issued:** 2018-12-07

**Certificate:** 70198728  
**Project:** 70198728  
**Issued to:** Meggitt SA  
 Rte de Moncor 4  
 Villars-sur-Glane, Fribourg 1752  
 SWITZERLAND  
**Attention:** Carlo Pellegrinelli

**Issued by:** *Hossein Saleh*  
 Hossein Saleh



*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*


**PRODUCTS**

**CLASS 2258 04** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations  
**CLASS 2258 84** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations - Certified to US Standards  
**Class I, Division 1, Groups A, B, C, and D T6...T4**  
**Ex ia IIC T6...T4 Ga**  
**Class I, Zone 0, AEx ia IIC T6...T4 Ga**

IPC 707 Signal Conditioner is an analog electronic conditioner which converts the electrical charges coming from a piezoelectric sensor (sensor side) into an analog voltage or current signal (signal side). The electronic circuitry of the IPC 707 signal conditioner is fully potted and incorporated into an aluminum enclosure.

IPC 707/signal Conditioner is equipped with terminals (sensor side and signal side) and with an optional clip for DIN rail mounting. Signal side output configurations could be one of the following:

- Voltage output: 3-wires transmission mode,
- Current output: 2-wires transmission mode.



**Master Contract:** 175074  
**Date Issued:** 2018-12-07

**Certificate:** 70198728  
**Project:** 70198728

**Entity Parameter Values:**

Terminal	Intrinsic Safety Electrical Parameters
J0 (SUP, COM)	U/V <sub>max</sub> : 28 V, I/I <sub>max</sub> : 100 mA, P/P <sub>max</sub> : 700 mW C: 2.2 nF, L: 1 uH
J0 (OUT, COM)	C: 9.6 nF, L: 565 uH
J1 (IN+, COM) (IN-, COM)	Uo/Vos: 6.6 V, Io/Isc: 66 mA, Po/Pmax: 107 mW, Co/Cr: 5.69 uF, L <sub>o</sub> /L <sub>r</sub> : 3.435 mH

**Temperature Table:**

Temperature Class / Code	Ambient Temperature Range
T6	-40 °C ≤ T <sub>AMB</sub> ≤ +70 °C
T5	-40 °C ≤ T <sub>AMB</sub> ≤ +80 °C
T4	-40 °C ≤ T <sub>AMB</sub> ≤ +85 °C

**Notes:**

- The above model is fixed connection, Pollution Degree 2 (Micro Environment), Overvoltage Category I.
- Mode of operation: Continuous.
- Environmental Conditions: Extended, Indoor use, -40°C to +85°C, altitude up to 4000m, RH% of 0-95% (non-condensing).
- The sensor that can be attached to the IPC707 Signal Conditioner has not been assessed under this certification. The suitability of the combination as a system is to be determined.


**Conditions of Acceptability:**

- The intrinsic safety terminal blocks (IS boards) must be connected only to an Intrinsically Safe certified apparatus.
- The equipment housing contains more than 10% of aluminum. It must be mounted in such a manner as to eliminate the risk of sparks caused by friction or impact.
- The grounding of the Intrinsically Safe circuits must be in accordance with the requirements of CEC and NEC.
- End-use shall ensure the device is properly connected to Earth upon installation.

**CLASS 2258 02** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations  
**CLASS 2258 82** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards  
**Class I, Division 2, Groups A, B, C, and D T6...T4**  
**Ex ec IIC T6...T4 Gc**  
**Class I, Zone 2, AEx ec IIC T6...T4 Gc**

IPC 707 Signal Conditioner is an analog electronic conditioner which converts the electrical charges coming from a piezoelectric sensor (sensor side) into an analog voltage or current signal (signal side). The electronic circuitry of the IPC 707 signal conditioner is fully potted and incorporated into an aluminum enclosure.

IPC 707/signal Conditioner is equipped with terminals (sensor side and signal side) and with an optional clip for DIN rail mounting. Signal side output configurations could be one of the following:



**Certificate:** 70198728      **Master Contract:** 175074

**Project:** 70198728      **Date Issued:** 2018-12-07

- Voltage output: 3-wires transmission mode,  
- Current output: 2-wires transmission mode.

Electrical Rating: U<sub>MAX</sub>: 30 V, I<sub>MAX</sub>: 20 mA

Temperature Table:


Temperature Class / Code	T6	T5	T4
Ambient Temperature Range	-40 °C ≤ T <sub>AMB</sub> ≤ +70 °C	-40 °C ≤ T <sub>AMB</sub> ≤ +80 °C	-40 °C ≤ T <sub>AMB</sub> ≤ +85 °C

Notes:

1. The above model is fixed connection, Pollution Degree 2 (Macro Environment), Installation Category I.
2. Mode of operation: Continuous.
3. Environmental Conditions: Extended, Indoor use, -40°C to +85°C, altitude up to 4000m, RH% of 0-95% (non-condensing).
4. The sensor that can be attached to the IPC707 Signal Conditioner has not been assessed under this certification. The suitability of the combination as a system is to be determined.

Conditions of Acceptability:

1. To be supplied by a Class 2 or limited-energy source on the signal side according to CSA 61010-1-12/UL 61010-1 3rd Edition.
2. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
3. The equipment shall be used in an area of not more than pollution degree 2 as defined in IEC 60664-1.
4. For Zone 2 application, this device shall be installed within a fixed end-use enclosure that provides a degree of protection not less than IP54 according to CSA/UL 60079-0 and CSA/UL 60079-7. The suitability of the enclosure is subject to acceptance by the local authorities having jurisdiction at the time of installation.
5. For Division 2 application, this device shall be installed within a fixed end-use enclosure that provides a degree of protection Type 4. The suitability of the enclosure is subject to acceptance by the local authorities having jurisdiction at the time of installation.
6. The final enclosure must bear the following warning marking both in French and English: "Do not connect or disconnect when an explosive atmosphere is present".
7. The final installation of the device shall meet the requirements of CEC (for Canada) and NEC (for USA) for wiring method in Division 2 and Zone 2 and is subject to acceptance of local authority having jurisdiction.
8. End-use shall ensure the device is properly connected to Earth upon installation.




**Certificate:** 70198728      **Master Contract:** 175074

**Project:** 70198728      **Date Issued:** 2018-12-07

**APPLICABLE REQUIREMENTS**

CAN/CSA C22.2 No. 61010-1-12	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements - Third Edition
CSA Std. C22.2 No. 213-17	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA-C22.2 No. 60079-0:15	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-7:16	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
CAN/CSA-C22.2 No. 60079-11:14	Explosive Atmospheres - Part 11: Equipment protection by intrinsic safety "i"
ANSI/UL 61010-1 3rd Edition	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements - Third Edition
ANSI/UL 121201 Edition 9	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
ANSI/UL 60079-0:13	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-7:17	Explosive Atmospheres - Part 7: Equipment Protection by Increased Safety "e"
ANSI/UL 60079-11:13	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"



**Supplement to Certificate of Compliance**

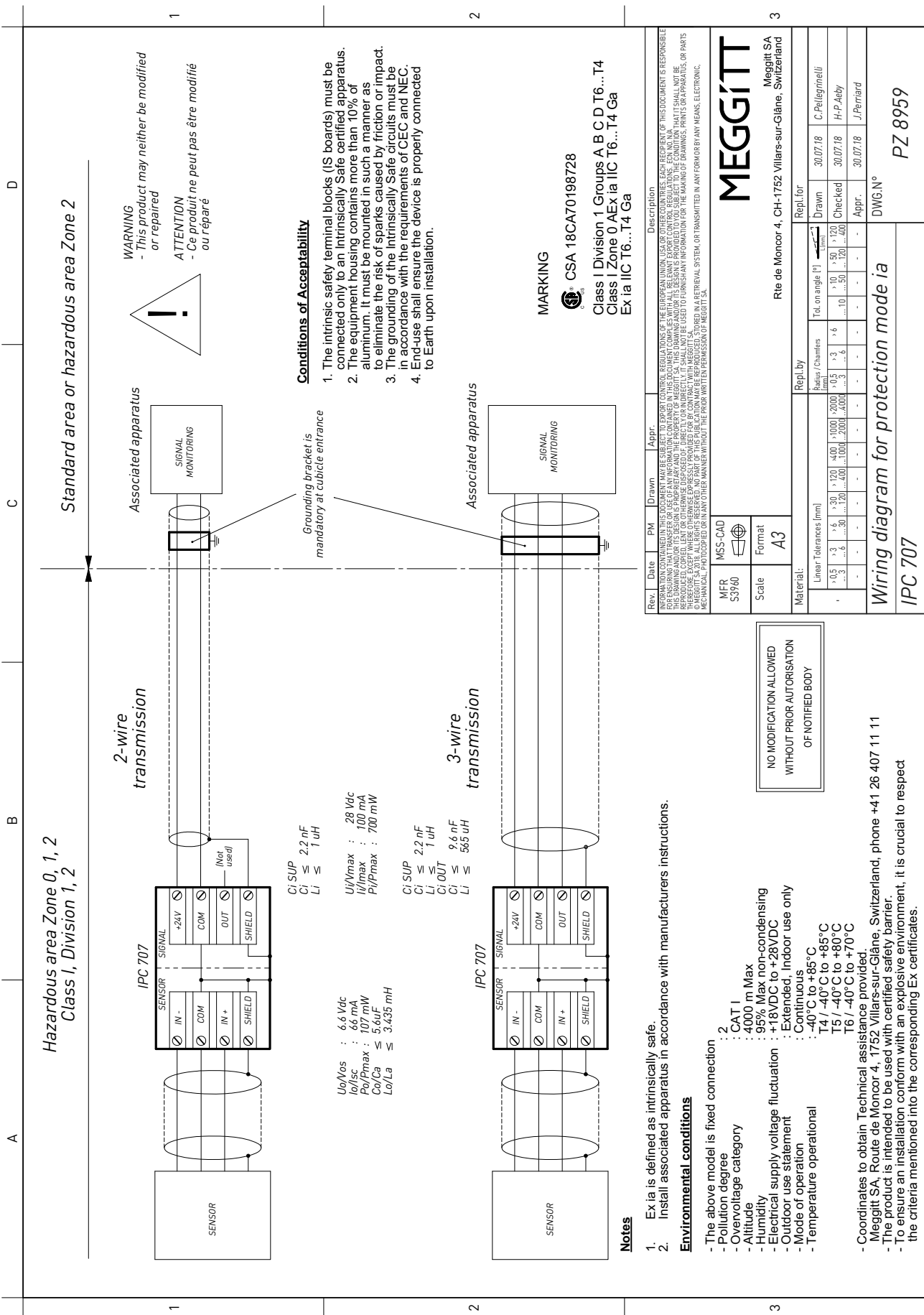
Master Contract: 175074

Certificate: 70198728

*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

<b>Product Certification History</b>	
Project	Description
70198728	2018-12-07 Original North American certification of IPC707 Signal Conditioner with Model Number 244-707-000-XXX based on acceptance of existing IEC and IECEx reports for the following markings: Class I, Division 1, Groups A, B, C, D T6...T4; Ex in IIC T6...T4 Gc; Class I, Zone 0, AEx in IIC T6...T4 Gc; and Class I, Division 2, Groups A, B, C, and D T6...T4; Ex in IIC T6...T4 Gc; Class I, Zone 2, AEx in IIC T 6...T4 Gc.

DOD 507 Rev 2018-11-12 © 2018 CSA Group. All rights reserved. Page 1



Rev.	Date	PM	Drawn	Appr.	Description
MFR					MEGGITT
S3940					Meggitt SA Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland
					Scale: A3
					Material: Linear Tolerances (mm)
					Repl. for
					Drawn: 30.07.18 C. Pellegrinelli
					Checked: 30.07.18 H-P. Aebi
					Appr.: 30.07.18 J. Perriard
					DWG N°: PZ 8959

NO MODIFICATION ALLOWED  
WITHOUT PRIOR AUTHORISATION  
OF NOTIFIED BODY

- Notes**
- Ex ia is defined as intrinsically safe.
  - Install associated apparatus in accordance with manufacturers instructions.
- Environmental conditions**
- The above model is fixed connection
  - Pollution degree : CAT 1
  - Overvoltage category : 4000 m Max
  - Altitude : 95% Max non-condensing
  - Humidity : +18VDC to +28VDC
  - Electrical supply voltage fluctuation : Extended, indoor use only
  - Outdoor use statement : Continuous
  - Mode of operation : -40°C to +85°C
  - Temperature operational : T4 / -40°C to +85°C  
T5 / -40°C to +80°C  
T6 / -40°C to +70°C
- Coordinates to obtain Technical assistance provided:  
Meggitt SA, Route de Moncor 4, 1752 Villars-sur-Glâne, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with certified safety barrier.
- To ensure an installation conform with an explosive environment, it is crucial to respect the criteria mentioned into the corresponding Ex certificates.



THIS PAGE INTENTIONALLY LEFT BLANK