



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 EUT 15.0007X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2021-03-16\)](#)
[Issue 0 \(2015-10-07\)](#)
Date of Issue: 2021-09-07
Applicant: **EUROSWITCH S.p.A.**
Via Provinciale, 15
Sale Marasino (BS) 25057
Italy
Equipment: **Pressure Switch and Vacuum switch models 30; 31; 387; 48; 49; 80; 81**
Optional accessory:
Type of Protection: **Intrinsic safety "i"**
Marking: Ex ia I Ma
Ex ia IIC TX* Ga
Ex ia IIIC TX**C Da

*The relationship between limit temperatures and process temperature ranges are reported in the equipment description and in the specific condition of use

Approved for issue on behalf of the IECEx
Certification Body:

Dionisio Bucchieri

Position:

Head of IECEx CB

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:

Eurofins Product Testing Italy S.r.l.
Via Cuorgnè
n.21 - 10156 Torino
Italy

 **eurofins** | Product Testing



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Manufacturer: **EUROSWITCH S.p.A.**
Via Provinciale, 15
Sale Marasino (BS) 25057
Italy

Additional manufacturing locations: **EUROSWITCH S.p.A.**
Via del Cottonificio, 1
Pisogne (BS) 25055
Italy

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

[IT/EUT/ExTR15.0011/02](#)

Quality Assessment Report:

[IT/EUT/QAR15.0003/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The vacuum/pressure switch is a device that allows the signalling of the reaching of a threshold pressure/depression of the fluid of a generic process.

The devices are electro-mechanical with two states (over or under a threshold corresponding to opened or closed state of an internal switch); the diaphragm (which is immersed in the fluid) actuates the switch through a spring.

The equipment consists of a metallic body (made of brass or stainless steel) and a plastic connector with its connection cable.

The equipment is suitable for Group I, Group IIC and Group IIIC and has respectively the type of protection "Ex i". The equipment must be connected to an already IECEX certified intrinsically safe barrier.

The equipment is intended to be used in environment having ambient temperature included in the range $-20^{\circ}\text{C} \div +40^{\circ}\text{C}$ and can be interfaced to process having maximum temperature of $+120^{\circ}\text{C}$, the relationships between the temperature class/maximum surface temperature and process temperatures are reported in the "Electrical and mechanical characteristics" section.

The process connection is different for each model, it can be: 1/8" conical gas, 1/8" gas cylindrical, 1/8" NPT, 1/4" conical gas, 1/4" gas cylindrical, M10x1 conical, M10x1 cylindrical; M12x1.5 cylindrical, 1/2" gas cylindrical, M20x1.5 cylindrical, 3/4" 16 UNF.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Potential electrostatic charge hazard - The user must periodically clean the equipment with a damp cloth or antistatic products.
- The equipment must be connected to an already IECEX certified intrinsically safe barrier with suitable output parameters according to the marked EPL and gas/dust group. Refers to the instruction manual for details related to the parameters.
- Temperature class and Maximum surface temperature values are defined according to the maximum ambient and process temperatures as indicated below:

Condition	Temperature classification
T_{Process} and $T_{\text{amb}} \leq 40^{\circ}\text{C}$	T6 and 80°C
$40^{\circ}\text{C} < T_{\text{Process}} \leq 55^{\circ}\text{C}$	T5 and 95°C
$55^{\circ}\text{C} < T_{\text{Process}} \leq 90^{\circ}\text{C}$	T4 and 130°C
$90^{\circ}\text{C} < T_{\text{Process}} \leq 120^{\circ}\text{C}$	T3 and 160°C

When used in mine and where coal dust can form a layer, the process temperature must not exceed 100°C ; where coal dust cannot form a layer, the process temperature must not exceed 120°C .

- The equipment has to be powered only by a single channel of certified intrinsic safety barrier. Where changeover contacts are included, only one contact at time can be used and then no common electrical connection of two intrinsic safety barrier can be achieved.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- The company changed name from EUROSWITCH S.r.l. to EUROSWITCH S.p.A.
- Previous instruction manuals and declarations prepared for each model have been merged into a single document; this document has been updated according to the new company name as well.
- Marking labels have been updated according to the new company name.

Annex:

[EPT 21 REL 01 2113120.pdf](#)

Annex to certificate: IECEX EUT 15.0007 X Issue N. 2**Electrical and mechanical characteristics**

- Degree of protection IP65 (declared by the manufacturer according to IEC 60529)
- The equipment must be connected to an already IECEX certified intrinsically safe barrier with suitable output parameters according to the marked EPL and gas/dust group.

The safe input parameters of the apparatus are:

U _i	I _i	P _i	L _i	C _i
20 V	0.2 A	1 W	≈0 μH	≈0 μF

- Temperature class and Maximum surface temperature values are defined according to the maximum ambient and process temperatures as indicated below:

Condition	Temperature classification
$T_{Process} \text{ and } T_{amb} \leq 40^{\circ}\text{C}$	T6 and 80°C
$40^{\circ}\text{C} < T_{Process} \leq 55^{\circ}\text{C}$	T5 and 95°C
$55^{\circ}\text{C} < T_{Process} \leq 90^{\circ}\text{C}$	T4 and 130°C
$90^{\circ}\text{C} < T_{Process} \leq 120^{\circ}\text{C}$	T3 and 160°C

When used in mine and where coal dust can form a layer, the process temperature must not exceed 100°C; where coal dust cannot form a layer, the process temperature must not exceed 120°C.

Warning label

Not present: the device is a small equipment.

The certificate number contains the symbol "X" in order to specify the special conditions for a safe use.

Routine test:

None