



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 20.0014X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-10-13

Applicant: **DonadonSDD S.r.l.**
Via Franceschelli, 7
Corbetta (MI) I - 20011
Italy

Equipment: **Burst detectors for rupture disks**

Optional accessory:

Type of Protection: **Equipment protection by intrinsic safety "i"**

Marking:

Ex ia IIC T6 ... T2 Ga

Ex ia IIIC T₂₀₀ 80 °C ... T₂₀₀ 290 °C Da

Ambient temperature range:

-40 °C ≤ Ta ≤ +70 °C

Local (process) temperature ranges:

-196 °C ≤ T_P ≤ +70 °C

-196 °C ≤ T_P ≤ +85 °C

-196 °C ≤ T_P ≤ +125 °C

-196 °C ≤ T_P ≤ +185 °C

-196 °C ≤ T_P ≤ +280 °C

Temperature classes:

T6

T5

T4

T3

T2

Maximum surface temperatures:

T₂₀₀ 80 °C

T₂₀₀ 95 °C

T₂₀₀ 130 °C

T₂₀₀ 195 °C

T₂₀₀ 290 °C

These process local temperature values are related only to burst detection flexible PCB (sensitive element subjected to breaks due to rupture disk opening); the connection cable and terminals are subjected to an ambient temperature range from -40 °C to +70 °C.

Approved for issue on behalf of the IECEx
Certification Body:

Dionisio Bucchieri

Position:

Head of IECEx Certification Body

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



Product Testing



IECEX Certificate of Conformity

Certificate No.: **IECEX EUT 20.0014X**

Page 2 of 3

Date of issue: 2021-10-13

Issue No: 0

Manufacturer: **DonadonSDD S.r.l**
Via Franceschelli, 7
Corbetta (MI) I - 20011
Italy

Additional
manufacturing
locations:

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/ExTR20.0014/00](#)

Quality Assessment Report:

[IT/EUT/QAR20.0003/00](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX EUT 20.0014X**

Page 3 of 3

Date of issue: 2021-10-13

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The IR series devices are a rupture discs burst indicators that use a break in electrical continuity of a circuit to signal the opening of the disc.

The sensors are designed to operate in a normally closed electrical circuit; a polymer membrane is used to support and isolate them.

The indicator consists of an insulated flexible circuit made up of a copper foil laminated between two membranes of Kapton® and may have a fluoropolymer diaphragm or actuator strip mounted across a ring that may be assembled with gaskets.

When the burst event occurs the deformation and opening of the disk places the polymer membrane in tension, causing the break of the electrical conductor and changing the electrical status of the sensors in open.

This open circuit condition can be used to activate alarms or signal to be used by the remote process control systems.

The equipment codes and variants are defined in the annex of this certificates.

Safety Parameters

U_i : 24 V

I_i : 50 mA

P_i : 0.3 W

L_i : 7.2 μ H

C_i : 780 pF

Routine tests

None.

Warning label

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Potential electrostatic charging hazard – see instructions
- In the marking plate of the equipment are present multiple temperature classes and maximum surface temperatures.

It is related to the maximum local process temperatures to which burst indicators can be subjected.

The information needed to define the temperature classes and maximum surface temperatures for the specific maximum local process temperature are present in this certificate and in the safety instructions.

Annex:

[EPT.21.REL.04_2013121_0.pdf](#)

Model Reference

The characteristics of The IR* series burst indicators are codified according to the following schema:

[a]	[b]	[c]	-	[d]	[e]	[f]	[g]
IR	■	■	-	72	■■■■■	K	■■■

Number of digits (■)

[a]	Equipment Type:	IR	: Burst indicator
[b]	Equipment Type:	2	: Burst indicator version IR2
[c]	Type of installation on rupture disk:	P	: Directly assembled on panel or disk.
		A	: Directly assembled on actuator.
		E	: Assembled with gaskets and perforated protection membrane (one-way)
		L	: Assembled with gaskets and non-perforated diaphragm.
		C	: Version for clamp connections.
[d]	Invariant part of code:	72	: Invariant internal code related to this type of product.
[e]	Type of printed circuit installed, identified by size:	1000	: Flexible printed circuit with length of 100 mm.
		1200	: Flexible printed circuit with length of 120 mm.
		1500	: Flexible printed circuit with length of 150 mm.
		2100	: Flexible printed circuit with length of 210 mm.
		3000	: Flexible printed circuit with length of 300 mm.
		4000	: Flexible printed circuit with length of 400 mm.
[f]	Insulation material of flexible printed circuit:	K	: Insulation made by Kapton®.
[g]	Presence of a connector and length of the connecting cable:	A0+15	: Version with connector and variable cable length from 0.4 m (A00) to 15 m (A15)
		01+15	: Version without connector and variable cable length from 1 m to 15 m.