

[1]

PRODUCTION QUALITY ASSURANCE NOTIFICATION



[2]	Equipment intended	for use in potentially	explosive atmospheres	Directive 2014/34/EU -	Annex IV
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Notification Number:

EPT 24 ATEX 5449 Q

Issue 0

Equipment: [4]

Explosion venting devices

Burst detectors for rupture disks

Types of protection:

Explosion venting devices EN 14797

Equipment protection by intrinsic safety "i"

Manufacturer:

DonadonSDD S.r.l.

Sites of manufacture:

Via Franceschelli, 7 - 20011 Corbetta (MI) - Italy

- Eurofins Product Testing Italy S.r.I., Notified Body N. 0477 in accordance with Article 21 of Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, notifies that the Manufacturer has a production quality system which complies with Annex IV of the Directive. The quality system, in compliance with Annex IV of the Directive, also meets the requirements of Annex VII.
- This Notification is based on Audit Report N. EPT.24.REL.01/2313102 issued on 20-12-2023 that includes also the list of the EU-Type Examination Certificates covered by this Notification. This Notification can be withdrawn if the Manufacturer no longer satisfies the requirements of Annex IV. The results of periodic re-assessment of the quality system are part of this Notification.
- This Notification can be withdrawn if the Manufacturer does not satisfy the production quality assurance [9] re-assessment.

Date of first issue: (DD-MM-YYYY)

03-01-2011

Place and date of issue: (DD-MM-YYYY)

Torino, 20-05-2024

This Notification is valid until: (DD-MM-YYYY)

02-01-2027

Dionisio Bucchieri

Paolo Trisoglio Directive Responsible Product Test Managing Director

eurofins

Votified Body N. 04

PRD Nº 119B ignatory of EA, IAF and ILAC Mutual Recognition Agreements

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This Notification is composed of 3 page and it is reproducible only in its entirely. The validity conditions are indicated in this Notification.



[11]

ANNEX PRODUCTION QUALITY ASSURANCE NOTIFICATION N. EPT 24 ATEX 5449 Q Issue 0



[12] Scope and products cover by this Notification

Eurofins Product Testing Italy S.r.I. has carried out the Manufacturer's QS assessment to verify that relevant requirements relating to the following products have been implemented.

Product	EU-Type Examination	Date
Pannello di sfogo dell'esplosione	DNV-MUNO 08 ATEX 3742	27-08-2008
Pannello di sfogo dell'esplosione PS-C/V/PSC/EX, PS-R/V/PSC/EX	DNV-MUNO 10 ATEX 4931	30-04-2010
Indicatore di rottura IRx IRP, IRA, IRE, IRL, IRC	CEC 15 ATEX 039	16-12-2015
Burst detectors for rupture disks type: IR*	EPT 21 ATEX 4570 X	13-10-2021

[13] Terms and conditions

The system approval is only valid for the equipment listed above, each one covered by the EU-Type Examination Certificate (quoted aside in the above column). For any other equipment an application for extension of the Certificate must be sent to Eurofins Product Testing Italy S.r.l.

Eurofins Product Testing Italy S.r.l. must be informed about any critical suppliers for part inherent this Certificate object.

Periodical audits and unexpected visits will be held in order to verify that the Manufacturer's obligations to maintain the validity of this Certificate are fulfilled.

The Manufacturer must give information of any intended adjustments to the quality system to Eurofins Product Testing Italy S.r.l., who will assess the changes and take decisions on the Certificate validity.

The Manufacturer of the equipment complying with directive 2014/34/EU is allowed to affix the CE mark followed by the Notified Body identification number 0477.

This Certificate does not replace in any way the declaration of conformity, nor relieve the Manufacturer from any other legal obligations with regard to product liability. This Certificate does not refer to other Directives applicable to the product.

The product liability remains with the Manufacturer, his representative or, in the absence of the representative, the importer as defined in Directive 2001/95/EC "General Product Safety".

[14] Certificate History

Date	Certificate	rtificate Notified Body	
03-01-2011 EUM1 11 ATEX 0360 Q		2049 Eurofins – Modulo Uno S.p.A.	Initial audit.
30-10-2013	EUM1 11 ATEX 0360.1 Q	0477 Eurofins – Modulo Uno S.p.A.	Change Body number.
10-01-2015	EPT 15 ATEX 1985 Q	0477 Eurofins Product Testing Italy S.r.l.	Re-assessment audit, inclusion of flame arresters, change Body name.



CP-ATEX-MOD-32-00

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Page 2 of 3 20-05-202

Dionisio Bucchieri



[11]

ANNEX PRODUCTION QUALITY ASSURANCE NOTIFICATION N. EPT 24 ATEX 5449 Q Issue 0



[14] Certificate History (continued)

Date	Certificate	Notified Body	Description
30-03-2015	-03-2015 EPT 15 ATEX 1985 Q 0477 Supplement N.1 Eurofins Product Testing Italy S.r.I.		Extension audit for inclusion of alarm indicators.
23-12-2015	EPT 15 ATEX 2357 Q	0477 Eurofins Product Testing Italy S.r.I.	Surveillance audit, change issuer signature.
02-01-2017	EPT 15 ATEX 2357 Q Issue 1	0477 Eurofins Product Testing Italy S.r.l.	Surveillance audit, change business name of Manufacturer.
29-12-2017	EPT 17 ATEX 2881 Q Issue 0	0477 Eurofins Product Testing Italy S.r.I.	Re-assessment audit, cancellation of flame arresters.
14-01-2021	EPT 21 ATEX 4159 Q Issue 0	0477 Eurofins Product Testing Italy S.r.I.	Re-assessment audit.
22-12-2021	EPT 21 ATEX 4159 Q Issue 1	0477 Eurofins Product Testing Italy S.r.I.	Surveillance audit, inclusion of Burst detectors for rupture disks type IR*.
20-05-2024	EPT 24 ATEX 5449 Q Issue 0	0477 Eurofins Product Testing Italy S.r.l.	Re-assessment audit on manufacturer site carried out in date 20-12-2024. This issue is in continuity with the previous one without interruption of its validity.



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CP-ATEX-MOD-32-00

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End of Certificate

Page 3 of 3 20-05-2024



EU-TYPE EXAMINATION CERTIFICATE

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Certificate Number: [3]

EPT 21 ATEX 4570 X

issue 0

[4] Equipment:

[1]

Burst detectors for rupture disks type:

IR*

Manufacturer: [5]

DonadonSDD S.r.l.

[6] Address: Via Franceschelli, 7 – I-20011 Corbetta (MI) – Italia

[7] This equipment and its accepted variations are specified in the annex to this Certificate.

Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive [8] 2014/34/EU of the European Parliament and of the Council of 26th February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive. The examination and test results are recorded in the confidential Report N° EPT.21.REL.03/2013121

[9] Compliance with the essential health and safety requirements is assured through the verification of them and by compliance with the following harmonized standards:

EN IEC 60079-0:2018, EN 60079-11:2012

- [10] If the sign "X" is placed after the Certificate number, it indicates that the equipment is subject to the special conditions for safe use specified in the annex to this Certificate.
- [11] This EU -TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified equipment. Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this equipment. These requirements are not object of this Certificate.
- [12] The equipment shall include the sign $\langle \xi_{x} \rangle$ and the following strings:

II 1 G Ex ia IIC T6 ... T2 Ga

Ambient temperature range

+70 °C -40 °C

II 1 D Ex ia IIIC T200 80 °C ... T200 290 °C Da

+280 °C Process (local) temperature range -196°C ≤Tp≤

Place and date of issue: (DD-MM-YYYY)

Torino, 13-10-2021

Dionisio Bucchieri Directive Responsible

Paglo Trisoglio Managing Director

Votified Body N. 0

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This Certificate has 6 pages and it is reproducible only in its entirely. Conditions of validity are reported below.

CP-ATEX-MOD-26-00



[13]

[14]

ANNEX EU-TYPE EXAMINATION CERTIFICATE N. EPT 21 ATEX 4570 X ISSUE 0



[15] Equipment description

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 Model Reference section of this certificate.

Detail of Markings

- (a) II 1G Ex ia IIC T6 ... T2 Ga

Ambient temperature range:

-40 °C ≤ Ta ≤ +70 °C

Local (process) temperature ranges:	Temperature classes:	Maximum surface temperatures:
-196 °C ≤ Tp ≤ +70 °C	T6	T ₂₀₀ 80 °C
-196 °C ≤ Tp ≤ +85 °C	T5	T ₂₀₀ 95 °C
-196 °C ≤ Tp ≤ +120 °C	T4	T ₂₀₀ 130 °C
-196 °C ≤ Tp ≤ +185 °C	Т3	T ₂₀₀ 195 °C
-196 °C ≤ Tp ≤ +280 °C	T2	T ₂₀₀ 290 °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.



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CP-ATEX-MOD-26-00

Dionisio Bucchieri Directive Responsible

Page 2 of 6 13-10-2021



[13]

[14]

ANNEX EU-TYPE EXAMINATION CERTIFICATE N. EPT 21 ATEX 4570 X ISSUE 0



[15] Equipment description

(Continue)

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
		Р	: Directly assembled on panel or disk.
		Α	: Directly assembled on actuator.
[c]	Type of installation on rupture disk:	E	: Assembled with gaskets and perforated protection membrane (one-way)
		L	 Assembled with gaskets and non-perforated diaphragm.
	*	С	: Version for clamp connections.
[d]	Invariant part of code:	72	: Invariant internal code related to this type of product.
	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.
[e]		1500	: Flexible printed circuit with length of 150 mm.
[e]		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 [®] .
	Presence of a connector	A0÷15	: Version with connector and variable cable length from 0.4 m (A00) to 15 m (A15)
[g]	and length of the connecting cable:	01÷15	: Version without connector and variable cable length from 1 m to 15 m.



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Page 3 of 6 13-10-2021

CP-ATEX-MOD-26-00



[13]

[14]

ANNEX EU-TYPE EXAMINATION CERTIFICATE N. EPT 21 ATEX 4570 X ISSUE 0



[15] Equipment description

(Continue)

Safety Parameters

Ui: 24 V

Ii: 50 mA

Pi: 0.3 W

Li: 7.2 µH

Ci: 780 pF

NOTE: The internal capacitance and inductance are based on cable parameters and its maximum length of 15 m.

Warning label

WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS

Routine tests

None.

[16] Assessment Report n° EPT.21.REL.03/2013121

This EC-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this certificate performed by the Notified Body Eurofins Product Testing Italy S.r.I., and reported in the Assessment Report above cited.

[17] Special condition for a safe use

- 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.

[18] Essential Health and Safety Requirements

Assured by compliance with harmonized standards.

ACCREDIA 5

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CP-ATEX-MOD-26-00

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Directive Responsible

Page 4 of 6 13-10-2021



[13]

[14]

ANNEX EU-TYPE EXAMINATION CERTIFICATE N. EPT 21 ATEX 4570 X ISSUE 0



[19] Descriptive documents

The equipment object of this Certificate are described by the following documents that are scheduled documents and therefore they cannot be modified without the explicit authorization of the Notified Body.

Type of document	Document identification		Rev.	Date
Type of document	Title	Code	Nev.	Date
Device technical specifications	IR2 Description	DTS00	0	24-09-2021
Mechanical drawing	SENSORE KAPTON PER INIDCATORE DI ROTTURA IRX2020 LUNGHEZZA 100 mm	70S100KA0	0	25-11-2020
Mechanical drawing	SENSORE KAPTON PER INIDCATORE DI ROTTURA IRX2020 LUNGHEZZA 120 mm	70S120KA0	0	25-11-2020
Mechanical drawing	SENSORE KAPTON PER INIDCATORE DI ROTTURA IRX2020 LUNGHEZZA 150 mm	70S150KA0	0	23-11-2020
Mechanical drawing	SENSORE KAPTON PER INIDCATORE DI ROTTURA IRX2020 LUNGHEZZA 210 mm	70S210KA0	0	12-01-2021
Mechanical drawing	SENSORE KAPTON PER INIDCATORE DI ROTTURA IRX2 LUNGHEZZA 300 mm	70S300KA0	0	15-01-2021
Mechanical drawing	SENSORE KAPTON PER INIDCATORE DI ROTTURA IRX2020 LUNGHEZZA 400 mm	70S400KA0	0	15-01-2021
Mechanical drawing	PCB SENSORE IRX2020 45x14x1.5 mm	720000015	5	27-01-2020
Mechanical drawing	SCATOLA SENSORE 50x18x7 mm	720000016	0	18-11-2019
Mechanical drawing	PIASTRINA ISOLANTE PTFE 1.5mm	720000018	5	11-06-2021
ATEX marking label	IR2 LABEL INFORMATION	TAR00	0	24-09-2021
Safety instructions	IR2 Safety instruction	ISTR00	0	24-09-2021



PRD N° 119B
Signatory of EA, IAF and ILAC Mutual Recognition Agreements
CP-ATEX-MOD-26-00

Dionisio Bucchieri
Directive Responsible

Page 5 of 6 13-10-2021



[13]

[14]

ANNEX EU-TYPE EXAMINATION CERTIFICATE N. EPT 21 ATEX 4570 X ISSUE 0



[20] Terms and conditions

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- changes in the design or construction of the product;
- · changes or amendments to the Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

[21] History

Issue	Description	Date
0	First Emission.	13-10-2021



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Page 6 of 6 13-10-2021

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CP-ATEX-MOD-26-00

End of Certificate