



[1]

EU-TYPE EXAMINATION CERTIFICATE

 [2] **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU – Annex III**

 [3] Certificate Number: **EPT 23 ATEX 5340 X** **issue 0**

 [4] Equipment: **SOLDO™ Proximity sensor
BX (BM301A)**

 [5] Manufacturer: **Rotork Instruments Italy s.r.l.**

 [6] Address: **Via Portico 17 - 24050 Orio al Serio (BG) - Italy**

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

[8] Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 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.24.REL.03/2313021


[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  and the following string:

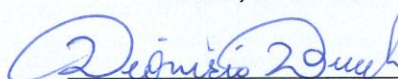
II 1G Ex ia IIC T6...T4 Ga	or	II 1GD Ex ia IIC T6...T4 Ga Ex ia IIIC T ₂₀₀ 135°C Da	or	II 2G Ex ib IIC T6...T4 Gb	or	II 2G 1D Ex ib IIC T6...T4 Gb Ex ia IIIC T ₂₀₀ 135°C Da
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II 2D Ex ib IIIC T115°C Db	or	II 2GD Ex ib IIC T4 Gb Ex ib IIIC T95°C, T115°C Db	or	II 1D Ex ia IIIC T ₂₀₀ 135°C Da
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Note : The relationships between the safety related electrical parameters, ambient temperature ranges and temperature limits are reported in the equipment description.

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

Torino, 25-01-2024


Dionisio Bucchieri
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This Certificate has 5 pages and it is reproducible only in its entirety. Conditions of validity are reported below.

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[15] **Equipment description**

The proximity sensors BX series (also referred to BM301A) are suitable for industrial field where it is necessary to take over the position of a metal target by means of electromagnetic sense without the use of physical contact.

The device consists of the following main parts:

- Equipment body machined from solid stainless steel.
- Proximity sensor (covered by separate equipment certificate).
- PCB.
- 4-poles terminal block.

The sensing element included in the device consists of an inductive proximity sensor; the field connection of the device is made possible by the use of a four-poles terminal block (mounted on a support PCB) pre-wired on one side to the sensor by a factory wiring.

The internal earth connection is allowed by a dedicated terminal and the external bonding is guaranteed by mounting the equipment on a conductive metallic structure connected to earth. The equipment body provides an entry point with ISO M20x1.5 or 1/2" NPT threads; an already certified cable gland shall be used for this purpose.

The equipment shall be powered up by an intrinsically safe barrier and it can be used in presence of potential explosive atmospheres belonging to gas group IIC and dust group IIIC; the reference EPLs are strictly related to the internally installed proximity switch.

The extended ambient temperature range of the equipment is $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +100^{\circ}\text{C}$; the relationships between the maximum ambient temperature, temperature limits and types of protections are reported below:

Table 1 - Equipment featuring proximity sensor brand Pepperl+Fuchs

Proximity model	EPL	Ci [nF]	Li [uH]	Supply Type 1			Supply Type 2			Supply Type 3			Supply Type 4		
				T6	T5	T4	T6	T5	T4	T6	T5	T4	T6	T5	T4
NCB2-12GM...-NO... Marking: Ex ia IIC T6...T4 Ga	Ga	90	100	76	91	100	73	88	100	62	77	81	54	63	63
NCB2-12GM...-NO... Marking: Ex ia IIC T6...T4 Ga Ex ia IIIC T ₂₀₀ 135°C Da	Ga / Da	90	100	76	91	100	73	88	100	62	63	63	N/A	N/A	N/A
NJ2-12GK-N... Marking: Ex ib IIC T6...T4 Gb	Gb	45	50	73	88	100	69	84	100	51	66	80	39	54	61
NJ2-12GK-N... Marking: Ex ib IIC T6...T4 Gb Ex ia IIIC T ₂₀₀ 135°C Da	Gb / Da	45	50	73	88	100	69	84	100	51	62	62	N/A	N/A	N/A
NJ2-12GM-N... Marking: Ex ia IIC T6...T4 Ga	Ga	30	50	76	91	100	73	88	100	62	77	81	54	63	63
NJ2-12GM-N... Marking: Ex ia IIC T6...T4 Ga Ex ia IIIC T ₂₀₀ 135°C Da	Ga / Da	30	50	76	91	100	73	88	100	62	63	63	N/A	N/A	N/A
NJ2-12GK-SN... Marking: Ex ia IIC T6...T4 Ga	Ga	50	150	73	88	100	69	84	100	51	66	80	39	54	61
NJ2-12GK-SN... Marking: Ex ia IIC T6...T4 Ga Ex ia IIIC T ₂₀₀ 135°C Da	Ga / Da	50	150	73	88	100	69	84	100	51	62	62	N/A	N/A	N/A

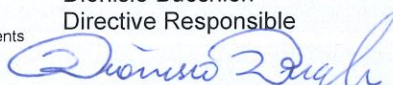
Note: The minimum ambient temperature of the equipment featuring the proximity sensor brand Pepperl+Fuchs is -40°C



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Table 2 - Equipment featuring proximity sensor brand Hans Turck

Proximity model	EPL	Ci [nF]	Li [uH]	Supply Type 5			Supply Type 6			Supply Type 7		
				T6	T5	T4	T6	T5	T4	T6	T5	T4
BI2-G12-Y1X Marking: Ex ia IIC T6... T4 Ga	Ga	150	150	70	N/A	N/A	N/A	70	N/A	N/A	N/A	70
BI2-G12-Y1X Marking: Ex ia IIC T4 Ga Ex ia IIIC T200135°C Da	Ga / Da	150	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70
BI2-G12-Y1X Marking: Ex ib IIIC T115°C Db	Db	150	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70 Only Dust Application
BI2-P12-Y1X/S97 Marking: Ex ib IIC T6... T4 Gb	Gb	150	150	70	N/A	N/A	N/A	70	N/A	N/A	N/A	70
BI2-P12-Y1X/S97 Marking: Ex ib IIC T4 Gb Ex ib IIIC T115°C Db	Gb / Db	150	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70
BI2-P12-Y1X/S97 Marking: Ex ia IIIC T200135°C Da	Da	150	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70 Only Dust Application
BI2-P12-Y1/S100 Marking: Ex ib IIC T6... T4 Gb	Gb	150	150	N/A	N/A	N/A	N/A	N/A	N/A	70	85	100
BI2-P12-Y1/S100 Marking: Ex ib IIC T4 Gb Ex ib IIIC T95°C Db	Gb / Db	150	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70
BI2-P12-Y1/S100 Marking: Ex ia IIIC T200135°C Da	Da	150	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70 Only Dust Application

Note: The minimum ambient temperature of the equipment featuring the proximity sensor brand Hans Turck is -25°C

Safety related electrical parameters:

The safety related electrical parameters are grouped by "supply type" as described below:

Supply Type 1	Supply Type 2	Supply Type 3	Supply Type 4	Supply Type 5	Supply Type 6	Supply Type 7
U _i = 16 V	U _i = 16 V	U _i = 16 V	U _i = 16 V	U _i = 20 V	U _i = 20 V	U _i = 20 V
I _i = 25 mA	I _i = 25 mA	I _i = 52 mA	I _i = 76 mA	I _i = 20 mA	I _i = 40 mA	I _i = 60 mA
P _i = 34 mW	P _i = 64 mW	P _i = 169 mW	P _i = 242 mW	P _i = 200 mW	P _i = 200 mW	P _i = 200 mW
C _i = See the reference values in Table 1				C _i = See the reference values in Table 2		
L _i = See the reference values in Table 1				L _i = See the reference values in Table 2		

Warning label

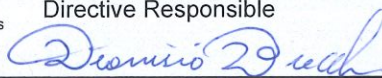
- Due to risk of static hazard the enclosure must be cleaned with a damp cloth
- See IOM for wiring details



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None

[16] **Assessment Report n° EPT.24.REL.03/2313021**

This EU-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.l., and reported in the Assessment Report above cited.

[17] **Special condition for a safe use**

- In order to guarantee the earth bonding connection, the device must be installed in such a way as to guarantee the electrical contact of the body to earth by means of the mechanical connection of the M16 threaded stem of the device to the structure on which it shall be mounted or by using an equivalent reliable method as long as a minimum contact cross-section of 4 mm² is guaranteed. See the instruction for further details.

- Potential electrostatic charging hazard, see instruction manual for details.

[18] **Essential Health and Safety Requirements**

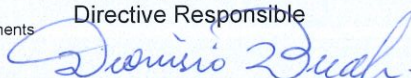
Assured by compliance with harmonized standards.



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**EU-TYPE EXAMINATION CERTIFICATE
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[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
Technical note	230207	0	07-02-2023
Datasheet of material important for safety and certification	A02	0	07-02-2023
Datasheet of component important for safety and certification	A03	0	07-02-2023
Schedule drawings and wiring diagrams	A04	0	25-08-2023
Installation & Operating Manual	DOC-11823	0	12-01-2024
Labels	A11	0	06-12-2023

[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

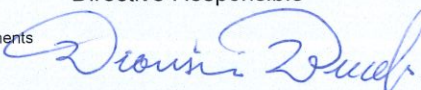
Issue	Description	Date
0	First Emission.	25-01-2024



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End of Certificate

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