Translation

1 # EU-Type Examination Certificate

2 **Equipment intended for use in potentially explosive atmospheres**
Directive 2014/34/EU

3 EU-Type Examination Certificate Number: **BVS 14 ATEX E 035 X – revision 3**

4 Product: **Pressure transmitter type IS-3**

5 Manufacturer: **WIKA Alexander Wiegand SE & Co. KG**

6 Address: **Alexander-Wiegand-Straße 30, 63911 Klingenberg, Germany**

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 14.2077 EU.

9 The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	**General requirements**
EN 60079-11:2012	**Intrinsic Safety "i"**
EN 60079-26:2015	**Equipment with equipment protection level (EPL) Ga**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 1G Ex ia IIA T4/T5/T6 Ga
II 1G Ex ia IIC T4/T5/T6 Ga
II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb
II 1D Ex ia IIIB T_{200}135°C Da
II 1/2D Ex ia IIIB T_{200}135°C Da/Db
II 1D Ex ia IIIC T135°C Da
II 1/2D Ex ia IIIC T135°C Da/Db
I M1 Ex ia I Ma

This 3rd revision replaces the EU Type Examination Certificate.
BVS 14 ATEX E 035 X including 2nd revision.

DEKRA Testing and Certification GmbH
Bochum, 2019-11-11

Signed: Jörg-Timm Kilisch

Managing Director

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 14 ATEX E 035 X

15 **Product description**

15.1 **Subject and type**

Pressure transmitter type IS-3-x-xxxx-xxx-xxxxxxx-xxxxxxx-xxxx

Type code

IS-3-*-bcde-***-*******-*qrst**-****

* = not relevant to ATEX

Position	Meaning	Fittings
bc	Intended for use in	'11' = II 1G
		'12' = II 1G, I M1
		'13' = II 1G, II 1D
		'14' = II 1G, II 1D, I M1
		'21' = II 1/2G
		'22' = II 1/2G, I M1
		'23' = II 1/2G, II 1/2D
		'24' = II 1/2G, II 1/2D, I M1
d	Approvals	'1' or '3' = with approval for Ex-atmospheres
e	Type of ignition protection	'1' = Intrinsic Safety
q	Adjustability	'Z' = none
		'T' = can be set to zero/range adjustable
rs	Electrical connection	Electrical output with two letters according to Table 1 below
t	Cable material	'Z' = none
		'A' = PUR
		'B' = FEP

15.2 **Description**

The pressure transmitter of type IS-3 converts pressure into electrical current. It is intended for measuring pressures in potentially explosive atmospheres and to be connected to intrinsically safe circuits.

15.3 **Electrical parameters**

Intrinsically safe supply and signal circuit (4 - 20 mA current loop)

Parameter	Group I	Group II	Group III
Voltage U_i	DC 30 V	DC 30 V	DC 30 V
Current I_i	100 mA	100 mA	100 mA
Power P_i	800 mW	800 mW	750 / 650 / 550 mW (IIIC) 800 / 650 mW (IIIB)
Effective internal capacitance C_i -	16.5 nF + 0.2 nF/m	16.5 nF + 0.2 nF/m	16.5 nF + 0.2 nF/m
Effective internal inductance L_i -	0 µH + 2 µH/m	0 µH + 2 µH/m	0 µH + 2 µH/m

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15.4 Ambient temperature range / Assignment to device category / Temperature class

Table 1: Ambient and medium temperature range for medium temperatures ≤ 105 °C

Nomenclature	2014/34/EU (ATEX)	EPL	Group	Ambient and medium temperature range (°C)	Temperature class / Surface temperature (°C)
BAYONET CONNECTOR ACC. TO MIL-DTL-26482 not adjustable IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-****	1/2G 3G	Ga/Gb Gc	IIC	-50 ≤ T_a ≤ +60 -50 ≤ T_a ≤ +75 -50 ≤ T_a ≤ +105	T6 T5 T4
	1/2D	Da/Db	IIIB	-50 ≤ T_a ≤ +85 (800 mW) -50 ≤ T_a ≤ +95 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-50 ≤ T_a ≤ +40 (750 mW) -50 ≤ T_a ≤ +70 (650 mW) -50 ≤ T_a ≤ +100 (550 mW)	T135 °C
BAYONET CONNECTOR ACC. TO MIL-DTL-26482 adjustable IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-****	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +75 -30 ≤ T_a ≤ +105	T6 T5 T4
	1/2D	Da/Db	IIIB	-30 ≤ T_a ≤ +85 (800 mW) -30 ≤ T_a ≤ +95 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +100 (550 mW)	T135 °C
CIRCULAR CONNECTOR M16x0,75 ACC. TO IEC61076-2-106 5-PIN not adjustable IS-3-*-****-***-*******-*ZB4Z**-**** adjustable IS-3-*-****-***-*******-*TB4Z**-****	M1	Ma	I	-30 ≤ T_a ≤ +85	N/A
	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +75 -30 ≤ T_a ≤ +85	T6 T5 T4
	1/2D	Da/Db	IIIB	-30 ≤ T_a ≤ +85 (800 mW) -30 ≤ T_a ≤ +85 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +85 (550 mW)	T135 °C
CIRCULAR CONNECTOR M12x1 ACC. TO IEC61076-2-101 A-COD 4-PIN not adjustable IS-3-*-****-***-*******-*ZM2Z**-**** adjustable IS-3-*-****-***-*******-*TM2Z**-****	M1	Ma	I	-30 ≤ T_a ≤ +105	N/A
	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +75 -30 ≤ T_a ≤ +105	T6 T5 T4
	1/2D	Da/Db	IIIB	-30 ≤ T_a ≤ +85 (800 mW) -30 ≤ T_a ≤ +95 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +100 (550 mW)	T135 °C
CIRCULAR CONNECTOR 7/8-16UN 4-PIN not adjustable IS-3-*-****-***-*******-*ZM6Z**-****	M1	Ma	I	-40 ≤ T_a ≤ +70	N/A
	1/2G 3G	Ga/Gb Gc	IIC	-40 ≤ T_a ≤ +60 -40 ≤ T_a ≤ +70 -40 ≤ T_a ≤ +70	T6 T5 T4
	1/2D	Da/Db	IIIB	-40 ≤ T_a ≤ +70 (800 mW) -40 ≤ T_a ≤ +70 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-40 ≤ T_a ≤ +40 (750 mW) -40 ≤ T_a ≤ +70 (650 mW) -40 ≤ T_a ≤ +70 (550 mW)	T135 °C
ANGULAR CONNECTOR ACC. TO DIN EN175301-803-A adjustable IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-****	M1	Ma	I	-30 ≤ T_a ≤ +105	N/A
	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +75 -30 ≤ T_a ≤ +105	T6 T5 T4
	1/2D	Da/Db	IIIB	-30 ≤ T_a ≤ +85 (800 mW) -30 ≤ T_a ≤ +95 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +100 (550 mW)	T135 °C
CABLE OUTLET IP67 adjustable IS-3-*-****-***-*******-*TDPA**-****	M1	Ma	I	-30 ≤ T_a ≤ +70	N/A
	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +70 -30 ≤ T_a ≤ +70	T6 T5 T4
	1/2D	Da/Db	IIIB	-30 ≤ T_a ≤ +70 (800 mW) -30 ≤ T_a ≤ +70 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +70 (550 mW)	T135 °C
CABLE OUTLET IP68 CABLE GLAND not adjustable IS-3-*-****-***-*******-*ZXPA**-**** adjustable IS-3-*-****-***-*******-*TXPA**-****	M1	Ma	I	-30 ≤ T_a ≤ +70	N/A
	1G 1/2G 3G	Ga Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +70 -30 ≤ T_a ≤ +70	T6 T5 T4
	1D 1/2D	Da Da/Db	IIIB	-30 ≤ T_a ≤ +70 (800 mW) -30 ≤ T_a ≤ +70 (650 mW)	T_{200} 135 °C

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Nomenclature	2014/34/EU (ATEX)	EPL	Group	Ambient and medium temperature range (°C)	Temperature class / Surface temperature (°C)
	1D 1/2D	Da Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +70 (550 mW)	T135 °C
CABLE OUTLET IP68 CABLE GLAND CONDUIT 1/2NPT not adjustable IS-3-*-****-***-*******-*Z5WA**-****	M1	Ma	I	-30 ≤ T_a ≤ +70	N/A
	1G 1/2G 3G	Ga Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +70 -30 ≤ T_a ≤ +70	T6 T5 T4
	1D 1/2D	Da Da/Db	IIIB	-30 ≤ T_a ≤ +70 (800 mW) -30 ≤ T_a ≤ +70 (650 mW)	T_{200} 135 °C
	1D 1/2D	Da Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +70 (550 mW)	T135 °C
CABLE OUTLET IP68 (CONTINUOUS USE IN MEDIUM) PUR not adjustable IS-3-*-****-***-*******-*ZDCA**-****	M1	Ma	I	-30 ≤ T_a ≤ +70	N/A
	1G	Ga	IIA	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +70 -30 ≤ T_a ≤ +70	T6 T5 T4
	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +70 -30 ≤ T_a ≤ +70	T6 T5 T4
	1D 1/2D	Da Da/Db	IIIB	-30 ≤ T_a ≤ +70 (800 mW) -30 ≤ T_a ≤ +70 (650 mW)	T_{200} 135 °C
	1D 1/2D	Da Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +70 (550 mW)	T135 °C
CABLE OUTLET IP68 (CONTINUOUS USE IN MEDIUM) FEP not adjustable IS-3-*-****-***-*******-*ZDCB**-****	M1	Ma	I	-30 ≤ T_a ≤ +95	N/A
	1G	Ga	IIA	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +75 -30 ≤ T_a ≤ +95	T6 T5 T4
	1/2G 3G	Ga/Gb Gc	IIC	-30 ≤ T_a ≤ +60 -30 ≤ T_a ≤ +75 -30 ≤ T_a ≤ +95	T6 T5 T4
	1D 1/2D	Da Da/Db	IIIB	-30 ≤ T_a ≤ +85 (800 mW) -30 ≤ T_a ≤ +95 (650 mW)	T_{200} 135 °C
	1D 1/2D	Da Da/Db	IIIC	-30 ≤ T_a ≤ +40 (750 mW) -30 ≤ T_a ≤ +70 (650 mW) -30 ≤ T_a ≤ +95 (550 mW)	T135 °C
FIELD CASE, CABLE GLAND BRASS NICKEL-PLATED IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** FIELD CASE, CABLE GLAND STAINLESS STEEL IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** FIELD CASE, CONDUIT IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****	M1	Ma	I	-50 ≤ T_a ≤ +105	N/A
	1/2G 3G	Ga/GbG c	IIC	-50 ≤ T_a ≤ +60 -50 ≤ T_a ≤ +75 -50 ≤ T_a ≤ +105	T6 T5 T4
	1/2D	Da/Db	IIIB	-50 ≤ T_a ≤ +85 (800 mW) -50 ≤ T_a ≤ +95 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-50 ≤ T_a ≤ +40 (750 mW) -50 ≤ T_a ≤ +70 (650 mW) -50 ≤ T_a ≤ +100 (550 mW)	T135 °C
FIELD CASE, CABLE GLAND PLASTIC IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	M1	Ma	I	-20 ≤ T_a ≤ +85	N/A
	1/2G 3G	Ga/Gb Gc	IIC	-20 ≤ T_a ≤ +60 -20 ≤ T_a ≤ +75 -20 ≤ T_a ≤ +85	T6 T5 T4
	1/2D	Da/Db	IIIB	-20 ≤ T_a ≤ +85 (800 mW) -20 ≤ T_a ≤ +85 (650 mW)	T_{200} 135 °C
	1/2D	Da/Db	IIIC	-20 ≤ T_a ≤ +40 (750 mW) -20 ≤ T_a ≤ +70 (650 mW) -20 ≤ T_a ≤ +85 (550 mW)	T135 °C

N/A = "not applicable"

Optional cooling elements are provided for medium temperature ranges 105 °C < T_{med} ≤ 200 °C.

The following tables show the maximum medium temperatures at the corresponding ambient temperatures for the respective temperature classes.
The minimum ambient and medium temperatures from table 1 "Ambient and medium temperature range for medium temperatures ≤ 105 °C" remain valid.

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Table 2: Maximum medium and ambient temperature depending on the temperature class when using cooling elements with pressure channel as process connection suitable for medium temperatures 105 °C < T_{med} ≤ 200 °C for Group II (gas atmosphere).

Temperature class	T2	T3				T4		
T (medium,max) / ° C	200	195	175	155	135	130	110	105
Model	T(ambient,max) / ° C							
Circular connector M12x1 IS-3-*-****-***-*******-*TM2Z**-**** IS-3-*-****-***-*******-*ZM2Z**-**** Bayonet connector IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-**** IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-**** Angular connector DIN EN175301-803-A IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-**** Field case, cable gland brass nickel-plated IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** Field case, cable gland stainless steel IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** Field case, conduit IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****	40	45	55	70	85	85	100	105
Cable outlet IP68 (continuous use in medium) FEP IS-3-*-****-***-*******-*ZDCB**-****	40	45	55	70	85	85	85	85
Circular connector M16x0,75 IS-3-*-****-***-*******-*TB4Z**-**** IS-3-*-****-***-*******-*ZB4Z**-**** Field case, cable gland plastic IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	40	45	55	70	70	70	70	70
Circular connector 7/8-16UN IS-3-*-****-***-*******-*ZM6Z**-**** Cable outlets PUR cable IS-3-*-****-***-*******-*TDPA**-**** IS-3-*-****-***-*******-*ZXPA**-**** IS-3-*-****-***-*******-*TXPA**-**** IS-3-*-****-***-*******-*Z5WA**-**** IS-3-*-****-***-*******-*ZDCA**-****	40	45	50	50	50	50	50	50

Table 3: Maximum medium and ambient temperature as a function of power P_i for Group IIIB (dust atmosphere) when using cooling elements with pressure channel as process connection suitable for medium temperatures 105 °C < T_{med} ≤ 135 °C

Power P_i:	800 mW				650 mW			
Group:	IIIB							
Surface Temperature	T_{200} 135 °C							
T (medium,max) / ° C	135	130	110	105	135	130	110	105
Model			T(ambient,max) / ° C					
Circular connector M12x1 IS-3-*-****-***-*******-*TM2Z**-**** IS-3-*-****-***-*******-*ZM2Z**-****	70	70	70	70	75	80	85	85

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Bayonet connector IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-**** IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-**** Angular connector DIN EN175301-803-A IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-**** Field case, cable gland brass nickel-plated IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** Field case, cable gland stainless steel IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** Field case, conduit IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****								
Cable outlet IP68 (continuous use in medium) FEP IS-3-*-****-***-*******-*ZDCB**-****	70	70	70	70	75	80	85	85
Circular connector M16x0,75 IS-3-*-****-***-*******-*TB4Z**-**** IS-3-*-****-***-*******-*ZB4Z**-**** Field case, cable gland plastic IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	70	70	70	70	70	70	70	70
Circular connector 7/8-16UN IS-3-*-****-***-*******-*ZM6Z**-**** Cable outlets PUR cable IS-3-*-****-***-*******-*TDPA**-**** IS-3-*-****-***-*******-*ZXPA**-**** IS-3-*-****-***-*******-*TXPA**-**** IS-3-*-****-***-*******-*Z5WA**-**** IS-3-*-****-***-*******-*ZDCA**-****	50	50	50	50	50	50	50	50

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Table 4: Maximum medium and ambient temperature as a function of the power P_i for Group IIIC (dust atmosphere) when using cooling elements with pressure channel as process connection suitable for medium temperatures 105 °C < T_{med} ≤ 135 °C

Power P_i:	750 mW				650 mW				550 mW			
Group:	IIIC											
Surface Temperature	135 °C											
T (medium,max) / ° C	135	130	110	105	135	130	110	105	135	130	110	105
Model	T(ambient,max) / ° C											
Circular connector M12x1 IS-3-*-****-***-*******-*TM2Z**-**** IS-3-*-****-***-*******-*ZM2Z**-**** Bayonet connector IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-**** IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-**** Angular connector DIN EN175301-803-A IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-**** Field case, cable gland brass nickel-plated IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** Field case, cable gland stainless steel IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** Field case, conduit IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****	0	0	0	0	50	50	50	50	75	80	95	95
Cable outlet IP68 (continuous use in medium) FEP IS-3-*-****-***-*******-*ZDCB**-****	0	0	0	0	50	50	50	50	75	80	85	85
Circular connector M16x0,75 IS-3-*-****-***-*******-*TB4Z**-**** IS-3-*-****-***-*******-*ZB4Z**-**** Field case, cable gland plastic IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	0	0	0	0	50	50	50	50	70	70	70	70
Circular connector 7/8-16UN IS-3-*-****-***-*******-*ZM6Z**-**** Cable outlets PUR cable IS-3-*-****-***-*******-*TDPA**-**** IS-3-*-****-***-*******-*ZXPA**-**** IS-3-*-****-***-*******-*TXPA**-**** IS-3-*-****-***-*******-*Z5WA**-**** IS-3-*-****-***-*******-*ZDCA**-****	0	0	0	0	50	50	50	50	50	50	50	50

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Table 5: Maximum medium and ambient temperature depending on the temperature class when using cooling elements with front flush process connection suitable for medium temperatures 105 °C < T_{med} ≤ 150 °C for Group II (gas atmosphere)

Temperature class	T3		T4		
T (medium,max) / ° C	150	135	130	110	105
Model	T(ambient,max) / ° C				
Circular connector M12x1 IS-3-*-****-***-*******-*TM2Z**-**** IS-3-*-****-***-*******-*ZM2Z**-**** Bayonet connector IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-**** IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-**** Angular connector DIN EN175301-803-A IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-**** Field case, cable gland brass nickel-plated IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** Field case, cable gland stainless steel IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** Field case, conduit IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****	20	50	55	95	105
Cable outlet IP68 (continuous use in medium) FEP IS-3-*-****-***-*******-*ZDCB**-****	20	50	55	85	85
Circular connector M16x0,75 IS-3-*-****-***-*******-*TB4Z**-**** IS-3-*-****-***-*******-*ZB4Z**-**** Field case, cable gland plastic IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	20	50	55	70	70
Circular connector 7/8-16UN IS-3-*-****-***-*******-*ZM6Z**-**** Cable outlets PUR cable IS-3-*-****-***-*******-*TDPA**-**** IS-3-*-****-***-*******-*ZXPA**-**** IS-3-*-****-***-*******-*TXPA**-**** IS-3-*-****-***-*******-*Z5WA**-**** IS-3-*-****-***-*******-*ZDCA**-****	20	50	50	50	50

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Table 6: Maximum medium and ambient temperature as a function of power P_i for Group IIIB (dust atmosphere) when using cooling elements with front flush process connection suitable for medium temperatures 105 °C < T_{med} ≤ 135 °C

Power P_i:	800 mW				650 mW			
Group:	IIIB							
Surface Temperature	T_{200} 135 °C							
T (medium,max) / ° C	135	130	110	105	135	130	110	105
Model			T(ambient,max) / ° C					
Circular connector M12x1 IS-3-*-****-***-*******-*TM2Z**-**** IS-3-*-****-***-*******-*ZM2Z**-**** Bayonet connector IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-**** IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-**** Angular connector DIN EN175301-803-A IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-**** Field case, cable gland brass nickel-plated IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** Field case, cable gland stainless steel IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** Field case, conduit IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****	35	45	75	75	35	45	90	90
Cable outlet IP68 (continuous use in medium) FEP IS-3-*-****-***-*******-*ZDCB**-****	35	45	75	75	35	45	90	90
Circular connector M16x0,75 IS-3-*-****-***-*******-*TB4Z**-**** IS-3-*-****-***-*******-*ZB4Z**-**** Field case, cable gland plastic IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	35	45	75	75	35	45	75	75
Circular connector 7/8-16UN IS-3-*-****-***-*******-*ZM6Z**-**** Cable outlets PUR cable IS-3-*-****-***-*******-*TDPA**-**** IS-3-*-****-***-*******-*ZXPA**-**** IS-3-*-****-***-*******-*TXPA**-**** IS-3-*-****-***-*******-*Z5WA**-**** IS-3-*-****-***-*******-*ZDCA**-****	35	45	55	55	35	45	55	55

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Table 7: Maximum medium and ambient temperature as a function of power P_i for Group IIIC (dust atmosphere) when using cooling elements with front flush process connection suitable for medium temperatures 105 °C < T_{med} ≤ 135 °C

Power P_i:	750 mW				650 mW				550 mW			
Group:	IIIC											
Surface Temperature	135 °C											
T (medium,max) / ° C	135	130	110	105	135	130	110	105	135	130	110	105
Model	T(ambient,max) / ° C											
Circular connector M12x1 IS-3-*-****-***-*******-*TM2Z**-**** IS-3-*-****-***-*******-*ZM2Z**-**** Bayonet connector IS-3-*-****-***-*******-*ZO5Z**-**** IS-3-*-****-***-*******-*ZO6Z**-**** IS-3-*-****-***-*******-*TO5Z**-**** IS-3-*-****-***-*******-*TO6Z**-**** Angular connector DIN EN175301-803-A IS-3-*-****-***-*******-*TA3Z**-**** IS-3-*-****-***-*******-*TAWZ**-**** IS-3-*-****-***-*******-*TAVZ**-**** Field case, cable gland brass nickel-plated IS-3-*-****-***-*******-*TFHZ**-**** IS-3-*-****-***-*******-*TFKZ**-**** Field case, cable gland stainless steel IS-3-*-****-***-*******-*TFCZ**-**** IS-3-*-****-***-*******-*TFDZ**-**** Field case, conduit IS-3-*-****-***-*******-*TFSZ**-**** IS-3-*-****-***-*******-*TFTZ**-**** IS-3-*-****-***-*******-*TFLZ**-**** IS-3-*-****-***-*******-*TFMZ**-****	15	15	15	15	35	45	55	55	35	45	90	95
Cable outlet IP68 (continuous use in medium) FEP IS-3-*-****-***-*******-*ZDCB**-****	15	15	15	15	35	45	55	55	35	45	90	90
Circular connector M16x0,75 IS-3-*-****-***-*******-*TB4Z**-**** IS-3-*-****-***-*******-*ZB4Z**-**** Field case, cable gland plastic IS-3-*-****-***-*******-*TFAZ**-**** IS-3-*-****-***-*******-*TFBZ**-****	15	15	15	15	35	45	55	55	35	45	75	75
Circular connector 7/8-16UN IS-3-*-****-***-*******-*ZM6Z**-**** Cable outlets PUR cable IS-3-*-****-***-*******-*TDPA**-**** IS-3-*-****-***-*******-*ZXPA**-**** IS-3-*-****-***-*******-*TXPA**-**** IS-3-*-****-***-*******-*Z5WA**-**** IS-3-*-****-***-*******-*ZDCA**-****	15	15	15	15	35	45	55	55	35	45	55	55

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16 **Report Number**

BVS PP 14.2077 EU, as of 2019-11-11

17 **Special Conditions for Use**

When used in areas which require Category 1G equipment, the pressure transmitter has to be wall-mounted in such a way that degrees of IP67 are ensured in compliance with EN 60529.

When used in areas which require Category 1D equipment, the pressure transmitter has to be wall-mounted in such a way that degree of IP6X is ensured in compliance with EN 60529.

The technical information provided by the manufacturer regarding the avoidance of mechanical hazards as well as the use of the pressure transmitter in conjunction with aggressive or corrosive media has to be adhered to.

When using the pressure transmitters in areas which require Category 1 equipment, the screen of the connecting cable needs to be integrated into the equipotential bonding of the equipment.

When used in areas which require Category 1G equipment, the cable gland has to be designed in such a way that degrees of IP67 are ensured in compliance with EN 60529.

When used in areas which require Category 1D equipment, the cable gland has to be designed in such a way that degree of IP6X is ensured in compliance with EN 60529.

The measuring of process media with temperatures exceeding the values of the measuring media temperature ranges stated in Table 1 above is only permitted if special cooling necks are used. However, the permitted surface temperature values, which apply to this range due to the defined temperature classes, shall not be exceeded.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2019-11-11
BVS-Alh/Mu A 20190779

Managing Director

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