

UK Type Examination Certificate CML 21UKEX2338X Issue 1

United Kingdom Conformity Assessment

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **Pressure Transmitters types Cerabar PMP51B, PMC51B, PMP71B, PMC71B, and Differential Pressure Transmitters types Deltabar PMD55B, PMD75B and PMD78B**
- 3 Manufacturer **Endress+Hauser SE+Co. KG**
- 4 Address **Hauptstrasse 1,
79689 Maulburg
Germany**

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

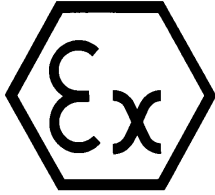
EN IEC 60079-0:2018	EN 60079-1:2014	EN 60079-11:2012
EN 60079-26:2015	EN 60079-31:2014	

- 10 The equipment shall be marked with the following:



II 2 G	Ex db IIC T6...T1 Gb
II 1/2 G	Ex db ia IIC T6...T1 Ga/Gb or Gb
II 1/2 D	Ex ta/tb IIIC T ₂₀₀ xxx°C Da/Db
II 2 D	Ex tb IIIC T _L xxx°C Db





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11 Description

Pressure Transmitters types Cerabar PMP51B, PMC51B, PMP71B, PMC71B and Differential Pressure Transmitters types Deltabar PMD55B, PMD75B and PMD78B for use in explosive atmospheres caused by the presence of combustible gases, fluids, vapours or dusts, are used to convert and over-, under- or differential pressure into a 4-20 mA or Profinet APL or Profibus PA or Foundation Fieldbus output signal.

The enclosure is either a single electronics compartment version made of aluminium or a dual compartment version made of aluminium or stainless steel, providing a separate electronics and a terminal compartment. The stainless steel pressure sensor is directly fitted to the enclosure. Optionally the electronics compartment can be equipped with a display module with or without Bluetooth in combination with a windowed cover.

The degree of protection of the equipment is IP64 in accordance with EN IEC 60079-0. The degree of protection of the equipment is IP66/IP68 (1.83m during 24h) in accordance with EN IEC 60529.

Type Examination

		PMP71B-aa bb c d e f g h ii k ll mmm n o + pp qq rr ss tt uu vv ww xx yy zz aa ββ γγ
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb
	*F	UK II 2G Ex db IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db, Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db, Db
	*K	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 1/2D, 2D Ex ia IIIC Da/Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*N	UK II 1/2G,2G Ex ia IIC T6 Ga/Gb, II 2G Ex db IIC T6 Gb, II 1/2D, 2D Ex ta/tb IIIC Da/Db
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
c=30		Display; Operation:
	A	W/o; via communication
	C	Segment display w/o buttons
	D	Segment display w/o buttons + Bluetooth
	E	Graphic display touch control
	F	Graphic display touch control + Bluetooth
	H	Graphic display, buttons inside
	L	prepared for separated display FHX50B + M12 connector
	M	prepared for separated display FHX50B + M20 cable entry
	N	prepared for separated display FHX50B + 1/2-NPT entry thread
	O	prepared for separated display FHX50B + M20 entry thread
d=40		Housing; Material:
	B	Single compartment; Alu, coated
	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
	M	Dual compartment L-shape; Alu, coated
	N	Dual compartment L-shape; 316L
	Y	Modification of one of the above mentioned options: customer specific color or painting; changes not relevant for explosion protection
e=50		Electrical Connection:
	A	Gland M20, plastic, IP66/68, NEMA Type 4X/6P
	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
	C	Gland M20, 316L, IP66/68,NEMA Type 4X/6P



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	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
	M	Plug M12, IP66/68 NEMA Type 4X/6P
	P	Plug HAN7D, 90deg, IP65 NEMA Type 4X
	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
	U	*Valve plug ISO4400 M16, IP65, NEMA Type 4X
	Y	Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, blue plastic Ex i cable gland, plug connector foe Ex i, other cable length; changes not relevant for explosion protection

PMC51B-aa b c d e f gg h ii kkk l + mm nn oo pp qq rr ss tt uu vv ww xx		
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, Gb
	*C	UK II 1/2G Ex db [ia] IIC T6 Ga/Gb
	*F	UK II 2G Ex db ia IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db, Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*O	UK II 1/2G,2G Ex ia IIC T6 Ga/Gb, II 2G Ex db IIC T6 Gb, II 1/2D, 2D Ex ia IIIC Da/Db
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
c=30		Display; Operation:
	A	W/o; via communication
	C	Segment display w/o buttons
	D	Segment display w/o buttons + Bluetooth
	E	Graphic display touch control
	F	Graphic display touch control + Bluetooth
	H	Graphic display, buttons inside
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	M	prepared for separated display FHX50B + M20 cable entry
	N	prepared for separated display FHX50B + 1/2-NPT entry thread
	O	prepared for separated display FHX50B + M20 entry thread
d=40		Housing; Material:
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	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
	M	Dual compartment, L-shape, Alu, coated
	N	Dual compartment L-shape; 316L
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	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
	C	Gland M20, 316L, IP66/68,NEMA Type 4X/6P
	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
	M	Plug M12, IP66/68 NEMA Type 4X/6P
	P	Plug HAN7D, 90deg, IP65 NEMA Type 4X
	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
	U	*Valve plug ISO4400 M16, IP65, NEMA Type 4X
	Y	Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, blue plastic Ex i cable gland, plug connector foe Ex i, other cable length; changes not relevant for explosion protection



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		PMC71B-aa bb c d e f g hh i kk ll m + nn oo pp qq rr ss tt uu vv ww xx yy zz
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb
	*C	UK II 1/2G Ex db [ia] IIC T6 Ga/Gb
	*F	UK II 2G Ex db ia IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db
	*K	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 1/2D, 2D Ex ia IIIC Da/Db, Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*O	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 2G Ex db ia IIC T6 Gb, II 1/2D, 2D Ex ia IIIC Da/Db
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
c=30		Display; Operation:
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	C	Segment display w/o buttons
	D	Segment display w/o buttons + Bluetooth
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	B	Single compartment; Alu, coated
	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
	M	Dual compartment, L-shape, Alu, coated
	N	Dual compartment L-shape; 316L
	Y	Modification of one of the above mentioned options: customer specific color or painting; changes not relevant for explosion protection
e=50		Electrical Connection:
	A	Gland M20, plastic, IP66/68, NEMA Type 4X/6P
	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
	C	Gland M20, 316L, IP66/68, NEMA Type 4X/6P
	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
	M	Plug M12, IP66/68 NEMA Type 4X/6P
	P	Plug HAN7D, 90deg, IP65 NEMA Type 4X
	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
	U	*Valve plug ISO4400 M16, IP65, NEMA Type 4X
	Y	Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, blue plastic Ex i cable gland, plug connector for Ex i, other cable length; changes not relevant for explosion protection



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		PMD55B-aa bb c d e f gg h i kkk l m n + oo pp qq rr ss tt uu vv ww xx yy zz aa
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, Gb
	*F	UK II 2G Ex db IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db, Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db, Db
	*K	UK II 1/2G, II2G Ex ia IIC Ga/ Gb, Gb; II 1/2D, 2D Ex ia IIIC Da/Db, Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*N	UK II 1/2G,2G Ex ia IIC T6 Ga/Gb, II 2G Ex db IIC T6 Gb, II 1/2D, 2D Ex ta/tb IIIC Da/Db
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
c=30		Display; Operation:
	A	W/o; via communication
	C	Segment display w/o buttons
	D	Segment display w/o buttons + Bluetooth
	E	Graphic display touch control
	F	Graphic display touch control + Bluetooth
	H	Graphic display, buttons inside
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	N	prepared for separated display FHX50B + 1/2-NPT entry thread
	O	prepared for separated display FHX50B + M20 entry thread
d=40		Housing; Material:
	B	Single compartment; Alu, coated
	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
	M	Dual compartment, L-shape, Alu, coated
	N	Dual compartment L-shape; 316L
	Y	Modification of one of the above mentioned options: customer specific color or painting; changes not relevant for explosion protection
e=50		Electrical Connection:
	A	Gland M20, plastic, IP66/68, NEMA Type 4X/6P
	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
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	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
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	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
	U	*Valve plug ISO4400 M16, IP65, NEMA Type 4X
	Y	Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, blue plastic Ex i cable gland, plug connector foe Ex i, other cable length; changes not relevant for explosion protection

		PMD75B-aa bb c d e f gg h i kkk l m n + oo pp qq rr ss tt uu vv ww xx yy zz aa ββ yy
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, Gb
	*F	UK II 2G Ex db IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db, Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db, Db
	*K	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 1/2D, 2D Ex ia IIIC Da/Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*N	UK II 1/2G,2G Ex ia IIC T6 Ga/Gb, II 2G Ex db IIC T6 Gb, II 1/2D, 2D Ex ta/tb IIIC Da/Db
bb=20		Output:



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	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
c=30		Display; Operation:
	A	W/o; via communication
	C	Segment display w/o buttons
	D	Segment display w/o buttons + Bluetooth
	E	Graphic display touch control
	F	Graphic display touch control + Bluetooth
	H	Graphic display, buttons inside
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	N	prepared for separated display FHX50B + 1/2-NPT entry thread
	O	prepared for separated display FHX50B + M20 entry thread
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	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
	M	Dual compartment L-shape; Alu, coated
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	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
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	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
	M	Plug M12, IP66/68 NEMA Type 4X/6P
	P	Plug HAN7D, 90deg, IP65 NEMA Type 4X
	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
	U	*Valve plug ISO4400 M16, IP65, NEMA Type 4X
	Y	Modification of one of the above mentioned options: Assembled with third party certified cable gland or blanking element, blue plastic Ex i cable gland, plug connector for Ex i, other cable length; changes not relevant for explosion protection



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		PMD78B- aa bb c d e f gg h i kkk ll mmm nnn o p q + rr ss tt uu vv ww xx yy zz αα ββ γγ δδ εε
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb
	*F	UK II 2G Ex db IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db
	*K	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 1/2D, 2D Ex ia IIIC Da/Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*N	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 2G Ex db IIC T6 Gb, II 1/2D, 2D Ex ta/tb IIIC Da/Db
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
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	N	prepared for separated display FHX50B + 1/2-NPT entry thread
	O	prepared for separated display FHX50B + M20 entry thread
d=40		Housing; Material:
	B	Single compartment; Alu, coated
	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
	M	Dual compartment L-shape; Alu, coated
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e=50		Electrical Connection:
	A	Gland M20, plastic, IP66/68, NEMA Type 4X/6P
	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
	C	Gland M20, 316L, IP66/68, NEMA Type 4X/6P
	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
	M	Plug M12, IP66/68 NEMA Type 4X/6P
	P	Plug HAN7D, 90deg, IP65 NEMA Type 4X
	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
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PMP51B-aa bb c d e f g h i i k ll mmm n o + pp qq rr ss tt uu vv ww xx yy zz aa ββ		
aa=10		Approval:
	*A	UK II 1G Ex ia IIC T6 Ga
	*B	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb
	*F	UK II 2G Ex db IIC T6 Gb
	*G	UK II 1/2D, 2D Ex ta/tb IIIC Da/Db
	*K	UK II 1/2G, 2G Ex ia IIC T6 Ga/Gb, II 1/2D, 2D Ex ia IIIC Da/Db
	*H	UK II 1/2D, 2D Ex ia IIIC Da/Db
	*L	UK II 3G Ex ec IIC T6 Gc, II 3D Ex tc IIIC Dc
	*N	UK II 1/2G,2G Ex ia IIC T6 Ga/Gb, II 2G Ex db IIC T6 Gb, II 1/2D, 2D Ex ta/tb IIIC Da/Db
bb=20		Output:
	AA	2-wire 4-20mA
	BA	2-wire 4-20mA HART
	DA	Profibus PA
	FA	2-wire, PROFINET (APL)
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d=40		Housing; Material:
	B	Single compartment; Alu, coated
	J	Dual compartment; Alu, coated
	K	Dual compartment; 316L
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	N	Dual compartment L-shape; 316L
	Y	Modification of one of the above mentioned options: customer specific color or painting; changes not relevant for explosion protection
e=50		Electrical Connection:
	A	Gland M20, plastic, IP66/68, NEMA Type 4X/6P
	B	Gland M20, brass nickel plated, IP66/68 NEMA Type 4X/6P
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	F	Thread M20, IP66/68 NEMA Type 4X/6P
	G	Thread G1/2, IP66/68 NEMA Type 4X/6P
	H	Thread NPT1/2, IP66/68 NEMA Type 4X/6P
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	S	*Cable 5m, IP66/68 NEMA Type 4X/6P, atmospheric pressure compensation via cable
	U	*Valve plug ISO4400 M16, IP65, NEMA Type 4X
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Thermal Data for EPL Ga/Gb and Gb

Marking for Cerabar type PMP51B, PMP71B – Ex db IIC T6...T1 Gb

Model	Type	Process connection type	Temperature class	Process temperature ¹⁾	Ambient temperature range ¹⁾
Cerabar	PMP51B PMP71B	compact	T6	$-50^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
			T4...T1	$-50^{\circ}\text{C} \leq T_p \leq +100^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
				$-50^{\circ}\text{C} \leq T_p \leq +125^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
		temperature decoupling,	T6	$-50^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$
			T4	$-50^{\circ}\text{C} \leq T_p \leq +125^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
			T3	$-50^{\circ}\text{C} \leq T_p \leq +190^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
			T2	$-50^{\circ}\text{C} \leq T_p \leq +290^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$
			T1	$-50^{\circ}\text{C} \leq T_p \leq +400^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
		capillary remote	T6	$-50^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
			T4	$-50^{\circ}\text{C} \leq T_p \leq +125^{\circ}\text{C}$	
			T3	$-50^{\circ}\text{C} \leq T_p \leq +190^{\circ}\text{C}$	
			T2	$-50^{\circ}\text{C} \leq T_p \leq +290^{\circ}\text{C}$	
			T1	$-50^{\circ}\text{C} \leq T_p \leq +400^{\circ}\text{C}$	

1) For versions without window cover lower ambient temperature decreases to -60°C (ordercode option 580 = "JT")

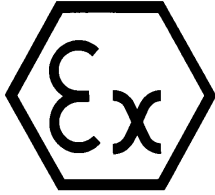
Marking for Deltabar type PMP55B, PMD75B, PMD78B – Ex db IIC T6...T1 Gb

Model	Type	Process connection type	Temperature class	Process temperature ¹⁾	Ambient temperature range ¹⁾
Deltabar	PMP55B PMP75B	compact	T6	$-50^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
			T4...T1	$-50^{\circ}\text{C} \leq T_p \leq +85^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$
				$-50^{\circ}\text{C} \leq T_p \leq +100^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
	PMP78B	temperature decoupling capillary remote	T6	$-50^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
			T4	$-50^{\circ}\text{C} \leq T_p \leq +125^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
			T3	$-50^{\circ}\text{C} \leq T_p \leq +190^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
			T2	$-50^{\circ}\text{C} \leq T_p \leq +290^{\circ}\text{C}$	
			T1	$-50^{\circ}\text{C} \leq T_p \leq +400^{\circ}\text{C}$	

1) For versions without window cover lower ambient temperature decreases to -60°C (ordercode option 580 = "JT")

Marking for Cerabar type PMC51B, PMC71 – Ex db ia IIC T6...T1 Ga/Gb or Ex db ia IIC T6...T1 Gb

Model	Type	Process connection type	Temperature class	Process temperature range T_p	Ambient temperature range
Cerabar	PMC51B PMC71B	Compact sensor	T6	$-40^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$
			T4	$-40^{\circ}\text{C} \leq T_p \leq +100^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
			T4...T1	$-40^{\circ}\text{C} \leq T_p \leq +125^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
		High temperature version	T6	$-40^{\circ}\text{C} \leq T_p \leq +80^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$
			T4	$-40^{\circ}\text{C} \leq T_p \leq +125^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
			T3...T1	$-40^{\circ}\text{C} \leq T_p \leq +150^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$



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Thermal Data for EPL Da/Db and Dc

Marking for Cerabar PMP51B, PMP71B

Ex ta/tb IIIC T₂₀₀ 125°C Da/Db, Ex tb IIIC T_L 125°C Db, Ex tc IIIC T125°C Dc

Model	Type	Process connection type	maximum surface temperature ¹⁾	Process temperature range T _p ²⁾	Ambient temperature range ^{1) 2)}
			EPL Da and EPL Db part		
Cerabar	PMP51B PMP71B	compact	T125°C	-40°C ≤ T _p ≤ 125°C	-40°C ≤ T _a ≤ +65°C
		temperature decoupled, capillary remote		-40°C ≤ T _p ≤ 400°C	-40°C ≤ T _a ≤ +70°C

- 1) For housing HS27, HS37 an ambient temperature decrease of 5 K must be considered
- 2) The lower ambient and process temperature decreases to -50°C (ordercode option 580 = 'JL')

Marking for Cerabar type PMC51B, PMC71B

Ex ta/tb IIIC T₂₀₀ 125°C Da/Db, Ex tb IIIC T_L 125°C Db, Ex tc IIIC T125°C Dc or

Ex ta/tb IIIC T₂₀₀ 150°C Da/Db, Ex tb IIIC T_L 150°C Db, Ex tc IIIC T150°C Dc

Model	Type	Process connection type	maximum surface temperature ¹⁾	Process temperature range T _p ³⁾	Ambient temperature range ^{2) 3)}
			EPL Da and EPL Db part		
Cerabar	PMC51B PMC71B	compact	T125°C	-40°C ≤ T _p ≤ 125°C	-40°C ≤ T _a ≤ +65°C
		High temperature	T150°C	-40°C ≤ T _p ≤ 150°C	-40°C ≤ T _a ≤ +70°C

- 1) For housing HS27 an ambient temperature decrease of 5 K must be considered

Marking for Deltabar PMD55B, PMD75B, PMD78B

Ex ta/tb IIIC T₂₀₀ 100°C Da/Db, Ex tb IIIC T_L 100°C Db, Ex tc IIIC T100°C Dc

Model	Type	Process connection type	maximum surface temperature ¹⁾	Process temperature range T _p ³⁾	Ambient temperature range ^{2) 3)}
			EPL Da and EPL Db part		
Deltabar	PMD55B PMD75B	compact	T100°C	-40°C ≤ T _p ≤ 100°C	-40°C ≤ T _a ≤ +65°C
	PMD78B	T decoupled, capillary remote	T100°C	-40°C ≤ T _p ≤ 400°C	-40°C ≤ T _a ≤ +70°C

- 1) For housing HS27 an ambient temperature decrease of 5 K must be considered
- 2) The lower ambient and process temperature decreases to -50°C (ordercode option 580 = 'JL')



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Electrical Data

Supply: max 35VDC 1W, Um = 250V (only relevant for Ex db ia versions)

Output: 2-wire 4-20 mA or 2-wire 4-20 mA HART

Supply: max 32VDC 0.7W, Um = 250V (only relevant for Ex db ia versions)

Output: 2-wire Profibus PA or Foundation Fieldbus

Supply: max 15 VDC 0.7 W, Um = 250V (only relevant for Ex db ia versions)

Output: 2-wire Profinet APL

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	11 May 2021	R14053B/00	Issue of the prime certificate. KIWA 20ATEX0031X, Issue 1 is attached and shall be referred to in conjunction with this certificate.
1	02 Aug 2023	R16259B/00	Issue of variation 1 DEKRA 22ATEX0051X, Issue 0 is attached and shall be referred to in conjunction with this certificate.

Note: Drawings that describe the equipment are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. The following routine tests shall be conducted on the equipment:
 - IEC 60079-1: overpressure test on the welded Ex d sensors.
 - IEC 60079-11: dielectric strength test on the sensor transformer
 - IEC 60079-26: overpressure and helium leakage test on the glass feedthrough of sensors modules SP11B, SP12B and SP13B

14 Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. For maximum surface temperature, ambient temperature range and maximum process temperature safety instructions.
- ii. The flameproof joints are not intended to be repaired.



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- iii. The pressure Transmitters shall be installed and maintained such that hazards caused by electrostatic discharge are excluded.

Certificate Annex

Certificate Number CML 21UKEX2338X
Equipment Pressure Transmitter Cerabar Differential Pressure transmitter Deltabar, Type PMP51B, PMP71B, PMD55B, PMD75B, PMD78B, PMC51B, PMC71B
Manufacturer Endress+Hauser SE+Co. KG



The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to attached certificate KIWA 20ATEX0031X. In addition to the drawings listed on KIWA 20ATEX0031X, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
961005066	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar PMP / Deltabar (a=UF) Ex db
961005067	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar / Deltabar (a=UG) Ex ta/tb
961005068	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar PMC (a=UF) Ex db ia
961005069	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar PMC (a=UC) II 1/2G Ex db ia Ga/Gb
961005156	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar PMC71B (a=UO) combination Ex ia, Ex d ia
961005157	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar PMP7x/ Deltabar (a=UN) combination Ex ia, Ex d, Ex t
961005158	1 of 1	A	11 May 2021	Nameplate UK Ex Cerabar / Deltabar (a=UL) combination Ex ec, Ex tc

Issue 1

For drawings describing the equipment, refer to attached certificate DEKRA 22ATEX0051X. In addition to the drawings listed on DEKRA 22ATEX0051X, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
961005066	1 of 1	B	28 June 2023	Nameplate UK Ex Cerabar PMP / Deltabar (a=UF) Ex db
961005067	1 of 1	B	28 June 2023	Nameplate UK Ex Cerabar / Deltabar (a=UG) Ex ta/tb
961005068	1 of 1	B	28 June 2023	Nameplate UK Ex Cerabar PMC (a=UF) Ex db ia
961005069	1 of 1	B	28 June 2023	Nameplate UK Ex Cerabar PMC (a=UC) II 1/2G Ex db ia Ga/Gb
961005156	1 of 1	B	28 June 2023	Nameplate UK Ex Cerabar PMC71B (a=UO) combination Ex ia, Ex d ia
961005157	1 of 1	B	28 June 2023	Nameplate UK Ex Cerabar PMP7x/ Deltabar (a=UN) combination Ex ia, Ex d, Ex t