

EU Type Examination Certificate CML 25ATEX2113X Issue 1

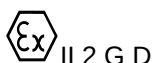
- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Pressure and temperature gauges types xGS, xGT, 1x1.11.050, 232.35.063, 4xx.x6, 5xx.5x, 632, 736, and x74**
- 3 Manufacturer **WIKA Alexander Wiegand SE & Co. KG**
- 4 Address **Alexander-Wiegand-Strasse 30,
63911 Klingenberg,
Germany**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, 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 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 to the Directive.

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 conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 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 60079-11:2012

- 10 The equipment shall be marked with the following:



Ex ia IIC T6/T5/T4* Gb

Ex ia IIIB T85°C/T95°C/T100°C/T135°C* Db

Ta= -20°C to +45°C/+60°C/+70°C*

- * **See Product Description for full details of applicable ambient temperature range and Temperature Ratings**

11 Description

The Pressure and temperature gauge types xGS, xGT, 1x1.11.050, 232.35.063, 4xx.x6, 5xx.5x, 632, 736, and x74 are a range of mechanical-temperature and mechanical-pressure gauges with integrated switches or certified proximity sensors, and 4-20mA transmitters which allow a variety of electrical outputs to be provided. The equipment is certified as intrinsically safe for use in groups IIA, IIB and IIC gases and group IIIB combustible dusts and has equipment protection levels “Gb” and “Db”.

The equipment may contain a 4-20mA transmitter, and/or bi-stable reed switches, and/or previously separately certified proximity sensors.

The equipment part number suffixes define the type and quantity of switches and/or proximity sensors fitted within the equipment, and whether or not a transmitter is fitted. Part numbers have one of the following generic formats:

X	Y	Z	+	I	+	S (+PTFE)	
							Option
							Coated Measuring System
							Switch/sensor type
							851-A Reed switch
							851-DA Reed switch
							831-x Proximity switch (various types)
							Transmitter
							892.44 4-20mA transmitter fitted
							Blank – no transmitter fitted
							Size (up to 3 digits)
							050 – 50mm nominal diameter
							063 – 63mm nominal diameter
							100 – 100mm nominal diameter
							160 – 160mm nominal diameter
							Options (up to 2 digits)
							Describing options which are not relevant for explosion protection (e.g. measuring element type)
							Model name and type (up to 3 digits)
							e.g. 232, 736, 632 etc.

X . Y + I + S (+PTFE)		
	Option	Coated Measuring System
	Switch/sensor type	851-A Reed switch 851-DA Reed switch 831-x Proximity switch (various types)
	Transmitter	892.44 4-20mA transmitter fitted Blank – no transmitter fitted
	Options (up to 2 digits)	Describing options which are not relevant for explosion protection (e.g. measuring element type)
	Model name and type (up to 8 digits)	e.g. DPGT43HP, TGS73, PGT23, A74 etc.

The following table gives details of the model numbers, sizes, and equipment suffixes for the various options:

Table 1 – Equipment types

(N = option not available, Y = always fitted, O = optional, 0, 1, 2 or 3 = number of devices that may be fitted).

		Sensor/switch type (only one of these options may be fitted)							4 - 20mA transmitter
		Proximity sensors						Bi-stable reed switch	
WIKA part no suffix:		831-N	831-3.5N	831-SN	831-3.5S1N	831-3.5SN	831	851-A 851-DA	892.44
Model name and type	Size								
PGS (Pressure)	063	1 or 2	N	1 or 2	N	N	1 or 2	1	N
	100	1 to 3	1 or 2	1 to 3	1 or 2	1 or 2	N	1 or 2	N
	160	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	N	1 or 2	N
APGS (absolute pressure) DPGS (Differential pressure) TGS (Temperature)	100	1 to 3	1 or 2	1 to 3	1 or 2	1 or 2	N	1 or 2	N
	160	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	N	1 or 2	N

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		Sensor/switch type (only one of these options may be fitted)							4 - 20mA transmitter
		Proximity sensors						Bi-stable reed switch	
WIK A part no suffix:		831-N	831-3.5N	831-SN	831-3.5S1N	831-3.5SN	831	851-A 851-DA	892.44
Model name and type	Size								
PGT (Relative pressure) APGT (Absolute pressure) DPGT (Differential pressure)	100	0 to 3	0 to 2	0 to 3	0 to 2	0 to 2	N	0 to 2	Y
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	0 to 2	Y
TGT (Temperature)	100	0 to 3	0 to 2	0 to 3	0 to 2	0 to 2	N	N	Y
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	N	Y
1x1.11.050 (Relative pressure)	050	1	N	N	N	N	N	N	N
232.35.063 (Relative pressure)	063	0 to 2	N	0 to 2	N	N	0 to 2	0 or 1	N
4xx.x6 (High overpressure)	100	0 to 3	0 to 2	0 to 3	0 to 2	0 to 2	N	0 to 2	N
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	0 to 2	N
5xx.5x (Relative pressure)	100	0 to 3	0 to 2	0 to 3	0 to 2	0 to 2	N	0 to 2	N
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	0 to 2	N
632 (absolute pressure)	100	0 to 3	0 to 2	0 to 3	0 to 2	0 to 2	N	0 to 2	N
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	0 to 2	N
736 (Differential pressure)	100	0 to 3	0 or 2	0 to 3	0 or 2	0 or 2	N	0 or 2	N
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	0 or 2	N
X74 (Temperature)	100	0 to 3	0 to 2	0 to 3	0 to 2	0 to 2	N	0 to 2	N
	160	0 to 3	0 to 3	0 to 3	0 to 3	0 to 3	N	0 to 2	N

Note – all models have at least one proximity sensor, or one bi-stable reed switch, or a 4-20mA transmitter fitted.

All models have a lower operating temperature of -20°C.

The following tables 2 to 5, detail the applicable temperature class/surface temperature and maximum permitted ambient temperature. Where the equipment incorporates options which are present in more than one of the tables 2 to 5, the lowest determined ambient temperature applies.

Table 2

Equipment containing Proximity sensors			
Temperature class/ Maximum surface temperature	Applied power (mW)	Ta (°C)	
		Equipment suffixes: 831-N, 831-SN	Equipment suffixes: 831-3.5N, 831-3.5S1N, 831-3.5SN
T6	64 (Type 2)	60	60
	169 (Type 3)	30	30
	242 (Type 4)	Not permitted	
T4-T1	64 (Type 2)	70	70
	169 (Type 3)	63	70
	242 (Type 4)	36	53
T135°C	64 (Type 2)	70	70
	169 (Type 3)	44	56
	242 (Type 4)	Not permitted	

Table 3

Equipment containing Equipment suffix 831	
Temperature class/ Maximum surface temperature	Ta (°C)
T6	60
T4-T1	70
T95°C	60

Table 4

Equipment containing bi-stable reed switches Equipment suffix 851-A/851-DA	
Temperature class/ Maximum surface temperature	Ta (°C)
T6-T1	70
T85°C	70

Table 5

Equipment containing 4-20mA transmitter		
Equipment suffix 892.44		
Temperature class/ Maximum surface temperature	Applied power (mW)	Ta (°C)
T6	1000	45
T4-T1		70
T135°C	550	70
	650	70
	750	40

The equipment is fitted with one or two external 6 pole or 4 pole connectors or an integral cable for connection of the internal transmitter, switches, and proximity sensors to associated apparatus located in the safe area. The equipment label details which internal equipment is connected to which poles of the external connectors.

Intrinsic safety is achieved by limiting energy storage and discharge, and by connecting to the non-hazardous area via intrinsically safe barriers.

Connections to switches, proximity sensors, and 4-20mA transmitter, have the following safety descriptions:

Table 6

Proximity sensors			Bi-stable reed switch	4 - 20mA transmitter
Equipment suffixes: 831-N, 831-SN, 831-3.5S1N, 831-3.5SN	Equipment suffix 831-3.5N	Equipment suffix 831	Equipment suffix 851-A/851-DA	Equipment suffix 892.44
Ui = 16V	Ui = 16V	Ui = 20V	Ui = 30V	Ui = 30V
li = 25mA (Type 2) 52mA (Type 3) 76mA (Type 4)	li = 25mA (Type 2) 52mA (Type 3) 76mA (Type 4)	li = 60mA	li = 100mA	li = 100mA
Pi = 64mW (Type 2) 169mW (Type 3) 242mW (Type 4)	Pi = 64mW (Type 2) 169mW (Type 3) 242mW (Type 4)	Pi = 130mW	Pi = 1.0W	Pi = 550mW 650mW 750mW 1.0W
Ci = 30nF	Ci = 50nF	Ci = 250nF	Ci = 0	Ci = 6.5nF
Li = 100µH	Li = 250µH	Li = 350µH	Li = 0	Li = 0

Variation 1

This variation introduces the following change:

- i. Introduction of an additional manufacturing location.

12 Certificate history and evaluation reports

Issue	Date	Associated Report	Notes
0	29 May 2025	R17590A/00	Issue of prime certificate
1	07 Oct 2025	R19100A/00	Introduction of Variation 1

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

13 Conditions of Manufacture

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

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The manufacturer shall ensure that all electrical components within the equipment are suitable for total immersion in any fluid with which the equipment may be filled.
- iii. The equipment shall be capable of withstanding an electric strength test using a test voltage of 500 Vac applied between each individual circuit and earth, and between individual circuits, for 60s. Alternatively, a voltage of 20% higher may be applied for 1s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.
- iv. The manufacturer shall ensure that models incorporating a PTFE lining within the measurement element are identified as such.

14 Specific Conditions of Use (Special Conditions)

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

- i. The temperature class, surface temperature, and permitted maximum ambient temperature, are dependent upon the options fitted within the equipment and may not be marked on the equipment label. The user shall refer to this certificate and to the equipment instructions for details of the applicable temperature class, surface temperature, and ambient temperature range.
- ii. The user shall consider that heat may be transferred along the measurement probe and the equipment shall not exceed the maximum permitted ambient temperature. For further information, refer to the user instructions.
- iii. Models which incorporate PTFE lining incorporate a warning label advising the user of a potential electro-static hazard within the process connection area when used in Groups IIC or IIIB. The user shall take all necessary precautions to mitigate the risk of electro-static discharge within the process connection.
- iv. The equipment may incorporate an integral cable. The user shall ensure that, when installed, the cable is fixed in place and is protected from mechanical damage.

- v. For Group III applications, under certain extreme circumstances, the non-metallic coating of the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. The user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust) is unlikely to be present and clean with a damp cloth.

Certificate Annex

Certificate Number CML 25ATEX2113X

Equipment Pressure and temperature gauges types xGS, xGT, 1x1.11.050, 232.35.063, 4xx.x6, 5xx.5x, 632, 736, and x74

Manufacturer WIKA Alexander Wiegand SE & Co. KG



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No.	Sheets	Rev	Approved Date	Title
14390680	1 to 30	06	29 May 2025	General Description
14014747	1 of 1	03	29 May 2025	Overview PGS2x.1x0+831
14140292	1 of 1	03	29 May 2025	Overview PGS2x.1x0+851-A
14143625	1 of 1	03	29 May 2025	Overview DPGS43.1x0+831
14143934	1 of 1	03	29 May 2025	Overview DPGS43.1x0+851-A
14145016	1 of 1	03	29 May 2025	Overview DPGS43HP.1x0+831
14145049	1 of 1	03	29 May 2025	Overview DPGS43HP.1x0+851-A
14024212	1 of 1	03	29 May 2025	Overview 232.35.063+831
14141235	1 of 1	03	29 May 2025	Overview 232.35.063+851-A
14157055	1 of 1	03	29 May 2025	Overview 1x1.11.050+831
14023466	1 of 1	03	29 May 2025	Overview PGT23.1x0+892.44
14023468	1 of 1	03	29 May 2025	Overview PGT23.1x0+892.44+831
14143600	1 of 1	03	29 May 2025	Overview PGT23.1x0+892.44+851
14144021	1 of 1	03	29 May 2025	Overview DPGT43.1x0+892.44
14157097	1 of 1	03	29 May 2025	Overview DPGT43.1x0+892.44+831
14157106	1 of 1	03	29 May 2025	Overview DPGT43.1x0+892.44+851
14157118	1 of 1	03	29 May 2025	Overview DPGT43HP.1x0+892.44
14157131	1 of 1	03	29 May 2025	Overview DPGT43HP.1x0+892.44+831
14160150	1 of 1	03	29 May 2025	Overview TGS73.1x0+831
14160151	1 of 1	03	29 May 2025	Overview TGS73.1x0+851
14159797	1 of 1	03	29 May 2025	Overview x74.1x0+831
14157145	1 of 1	03	29 May 2025	Overview x74.1x0+851
14160165	1 of 1	03	29 May 2025	Overview TGS55.1x0+831
14160174	1 of 1	03	29 May 2025	Overview TGT73.1x0+892.44
14144391	1 of 1	03	29 May 2025	Overview process connection_PG_#1
14156572	1 of 1	04	29 May 2025	Overview process connection_PG_#2
14158403	1 of 1	04	29 May 2025	Overview process connection_TG_#1
14159805	1 of 1	03	29 May 2025	Overview process connection_TG_#2
14023469	1 to 4	04	29 May 2025	Overview electrical connection

Certificate Annex

Certificate Number CML 25ATEX2113X

Equipment Pressure and temperature gauges types xGS, xGT, 1x1.11.050, 232.35.063, 4xx.x6, 5xx.5x, 632, 736, and x74

Manufacturer WIKA Alexander Wiegand SE & Co. KG



Drawing No.	Sheets	Rev	Approved Date	Title
14004541	1 of 1	02	29 May 2025	Overview contact type 831 nominal size 100
14005389	1 of 1	02	29 May 2025	Overview contact type 831 nominal size 160
14015983	1 of 1	02	29 May 2025	Overview contact type 831 nominal size 063
14145816	1 of 1	02	29 May 2025	Overview contact type 851 nominal size 1x0
14141446	1 of 1	02	29 May 2025	Overview assembly 851 nominal size 063
14140279	1 of 1	05	29 May 2025	Dial & Label with contact 831
14159677	1 of 1	05	29 May 2025	Dial & Label with contact 851
14157083	1 of 1	04	29 May 2025	Dial & Label type 1x1.11.050 with contact 831
14159676	1 of 1	07	29 May 2025	Dial & Label with transmitter 892.44
14159678	1 of 1	06	29 May 2025	Dial & Label with transmitter 892.44 und 831
14024303	1 of 1	02	29 May 2025	Overview windows and adjusting locks
14144637	1 of 1	03	29 May 2025	Overview mechanical accessories
14618747	1 of 1	02	29 May 2025	Overview electronic unit
14143581	1 of 1	02	29 May 2025	Overview insulation distances type 851
14141413	1 of 1	06	29 May 2025	Dial & Label with transmitter 892.44 und 851
14301547	1 of 1	01	29 May 2025	Cable Loom 831.XX
14301549	1 of 1	01	29 May 2025	Cable Loom 892.44
14285428	1 of 1	02	29 May 2025	Assembly with mounting bowl
-	1 to 6	-	29 May 2025	Excerpt of Operating Instructions
14024303	1 of 1	03	29 May 2025	Overview Windows
14695718	1 of 1	02	29 May 2025	Overview PGS23.063/232.50.063 + 851-DA
14741988	1 of 1	01	29 May 2025	PCB and Cable Assembly PGS23.063 / 232.50.063 M. 851-DA

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No Drawings.