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# EU-TYPE EXAMINATION CERTIFICATE

- [2] Product Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- [3] EU-Type Examination Certificate Number: **Presafe 16 ATEX 7778X** **Issue 2**
- [4] Product: **Thermocouple / RTD Assemblies**  
with or without optional temperature transmitter
- [5] Manufacturer: **WIKA Alexander Wiegand SE & Co. KG**
- [6] Address: **Alexander-Wiegand-Strasse 30**  
**63911 Klingenberg**  
**Germany**
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 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 confidential reports listed in item 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN IEC 60079-0: 2018, EN 60079-1: 2014, and EN 60079-31: 2014**
- Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. 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 2 G Ex db IIB + H2 T6...T4 Gb or Ex db IIC T6...T4 Gb** **T6: -20°C to +60°C**  
**T5: -20°C to +75°C**  
**T4: -20°C to +80°C**

**II 2 D Ex tb IIIC T85°C Db IP66** **T85°C = -20°C to +60°C**



Date of issue:  
2022-03-29



Asle Kaastad  
For DNV Product Assurance AS  
The Certificate has been digitally signed.  
See [www.dnv.com/digitalsignatures](http://www.dnv.com/digitalsignatures) for info

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 16 ATEX 7778X **Issue 2**

[15] **Description of Product**

The Series 1000/4000, 5000/6000, 7000/8000, TC10/TR10, TC50/TR50, and TC59 assemblies are comprised of a stainless steel or cast aluminum enclosure, together with a thermocouple or RTD sensor. Assemblies are provided standard with sensor wires or wired to an integral terminal block, but may also be supplied with an optional ATEX certified temperature transmitter. Enclosure covers may either be solid or windowed.

Enclosures are made flameproof either via flameproof fitting, thermowell, or fixed bushing. Models with the flameproof fitting are only suitable for Ex db IIB+H<sub>2</sub>, while models with thermowells or fixed bushings are suitable for Ex db IIC. All models are suitable for Ex tb IIIC. The table below shows these combinations:

Marking	Model
II 2 G Ex db IIB + H <sub>2</sub> T6...T4 Gb	AP1, AP2, AP3, AP4, AP5, TX1, TX2, TX3, TX4, TX5, TXA, TXB, TXC
II 2 G Ex db IIC T6...T4 Gb	AE, AF, AG, AK, TXE, TXF, TXG, TXK, YTE, WTE, YTP, WTP
II 2 D Ex tb IIIC T85°C Db IP66	All
<p><i>Note: The Series TC10/TR10, TC50/TR50, and TC59 are alternate designations for the Series 1000/4000, 5000/6000, and 7000/8000 enclosures. The model designations are the same for all series and define allowable configurations.</i></p> <p><i>Note: Models AE, AF, AK, TXE, TXF, TXK, YTE, and WTE require thermowells to maintain their flameproof properties</i></p>	

**Type designation**

Series - 1000/4000, 5000/6000, 7000/8000, TC10/TC10, TC50/TR50, and TC59

Models - AP1, AP2, AP3, AP4, AP5, TX1, TX2, TX3, TX4, TX5  
AE, AF, AG, AK, TXA, TXB, TXC, TXE, TXF, TXG, TXK  
YTE, WTE, YTP, WTP

**Electrical Data:** 30Vdc, 2W

**Degrees of protection (IP Code):** IP66

**Routine tests**

All welded bushings shall be subjected to liquid penetrant weld inspection in order to verify the integrity of the Ex db critical weld.

[16] **Report No.:** 2016-3065 Rev 02  
**Project No.:** PRJN-301693-2021-PA-USA

### [17] Specific Conditions of Use

1. The ambient temperature limits are:
  - T6: -20°C to +60°C
  - T5: -20°C to +75°C
  - T4: -20°C to +80°C
  - T85°C: -20°C to +60°C
2. Care shall be taken to ensure that any external sources of heating or cooling do not cause the assembly to operate outside of the allowable ambient range.
3. All cable entry devices shall be suitably certified and compatible with the type of protection used.
4. *For Ex db IIC (Models AE, AF, AG, AK, TXE, TXF, TXG, TXK, YTE, WTE, YTP, WTP):* Where nipples, unions, and/or couplers are used for sensor connections, they shall be suitably certified as Ex d and be compatible with the marking of this assembly. Nipples shall have a maximum length  $\leq 15.24\text{cm}$  (6").
5. *For Ex tb:* Where nipples, unions, and/or couplers are used for sensor connections, they shall maintain the required ingress protection of the assembly.
6. For ambient temperatures above 70°C, care shall be taken to select cable that is suitably rated for the intended ambient temperature range.

### [18] Essential Health and Safety Requirements

Met by compliance with the requirements mentioned in item 9.

### [19] Drawings and documents

Drawing No.:	Sheet No.:	Title:	Rev. Level:	Date:
ATS-8101	1	7/8000 Series Termination Head	14	2020-09-28
ATS-8101	2	Flame Path Mounting Fittings 1/4" and 6mm Sensor	5	2016-02-08
ATS-8101	29	Threaded Thermowells	5	2016-02-08
ATS-8101	30	Socket Weld and Weld-In Thermowells	5	2016-02-08
ATS-8101	31	Flanged Thermowells	5	2016-02-08
ATS-8101	32	Vanstone Thermowells	5	2016-02-08
ATS-8101	34	Spring Loaded Bushing 1/2" x 1/2" NPT – 1/4" Sensor	3	2016-02-08
ATS-8101	35	Fixed Bushings for Ø1/4 Sensors	6	2017-10-16
ATS-8101	40	1/4000F Series Termination Head	7	2020-09-25
ATS-8101	41	1/4000F Series Cast Aluminum Cap	10	2020-10-06
ATS-8101	42	Flame Path Mounting Fittings	2	2016-02-09
ATS-8101	94	7/8000 Series Termination Head Stainless Steel	4	2020-10-07
ATS-8101	95	5/6000 & 7/8000 Series Cap Stainless Steel	3	2020-10-08
ATS-8101	96	1/4000F Series Stainless Steel Termination Head	4	2020-10-13
ATS-8101	97	1/4000F Series Stainless Steel Cap	3	2020-10-13
ATS-8101	99	Serial Number Layout	5	2017-10-24
ATS-8101	100	Thermowell Materials	2	2016-05-03

Drawing No.:	Sheet No.:	Title:	Rev. Level:	Date:
ATS-8101	158	Thermocouple or RTD Assembly Model AP1 & TX1	1	2016-04-22
ATS-8101	159	Thermocouple or RTD Assembly Model AP2, TXA & TX2	1	2016-04-22
ATS-8101	160	Thermocouple or RTD Assembly Model AP3, TXB & TX3	1	2016-04-22
ATS-8101	161	Thermocouple or RTD Assembly Model AP4 & TX4	1	2016-04-22
ATS-8101	162	Thermocouple or RTD Assembly Model AP5, TXC & TX5	1	2016-04-22
ATS-8101	163	T/C or RTD Assembly w/ Thermowell Model AE & TXE	1	2016-04-22
ATS-8101	164	T/C or RTD Assembly w/ Thermowell Model AF & TXF	1	2016-04-22
ATS-8101	165	Thermocouple or RTD Assembly Model AG & TXG	2	2017-10-16
ATS-8101	166	T/C or RTD Assembly w/ Thermowell Model AK & TXK	1	2016-04-22
ATS-8101	167	IECEx d Glass Cap Tag Layout	4	2015-09-06
ATS-8101	169	IECEx d Tag Layout For Transmitter/Terminal Block	4	2016-09-06
ATS-8101	173	IECEx d Rectangular Tag Layout for Transmitter/Terminal Blocks	2	2016-05-24
ATS-8101	199	T/C or RTD Assembly w/Thermowell Model AG & 1TXG w/Adapter	1	2017-10-16
ATS-8101	200	M20x1.5F x 1/2 NPTM Adapter	2	2017-10-16
ATS-10677	9	5/6000 CA Series Terminal Head for Wall/Panel Mounting	9	2020-10-09
ATS-10677	11	5/6000 & 7/8000 Series Cap w/ Glass Lens (Window)	5	2020-09-28
ATS-10677	21	Digital Display Retainer Ring & Glass Details	5	2016-04-22
ATS-10677	23	Cast Aluminum Solid Cap for 5/6000 & 7/8000 Series	6	2020-10-05
ATS-10677	41	5/6000 Series Head Flame Path Detail	3	2016-05-06
ATS-10677	64	5/6000 SS Series Termination Head for Wall/Panel Mounting	6	2020-10-13
ATS-10677	67	5/6000 & 7/8000 Series Cap For Glass Lens (Window)	2	2020-10-13
ATS-10677	69	Flame Path Mounting Fittings for 3/8" Sensor	1	2016-02-09
ATS-10677	70	Flame Path Mounting Fittings for 8mm Sensor	1	2016-02-09
ATS-10783	57	Thermocouple or RTD Assembly Model YTE/WTE 3U	0	2016-02-22
ATS-10783	58	Thermocouple or RTD Assembly Model YTE/WTE 3C	0	2016-02-22
ATS-10783	59	Thermocouple or RTD Assembly Model YTE/WTE N	0	2016-02-22
ATS-10783	60	Thermocouple or RTD Assembly Model YTP/WTP 3U	0	2016-02-22
ATS-10783	61	Thermocouple or RTD Assembly Model YTP/WTP 3C	0	2016-02-22
ATS-10783	62	Thermocouple or RTD Assembly Model YTP/WTP N	0	2016-02-22

## [20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2016-10-17	2016-3065 Rev 00
1	Allow alternate configuration for Models AG / TXG Allow metric threaded version of welded "bushing" Modification of routine test for welded "bushing"	2017-10-25	2016-3065 Rev 01
2	Update to EN IEC 60079-0:2018 Transfer applicant from WIKA Canada to WIKA Germany Various drawing updates not impacting safety	2022-03-29	2016-3065 Rev 02

END OF CERTIFICATE