

Data sheet



Product group 56-WEK

Temperature sensors with head, process connection and cable insert

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Temperature probes with terminal head and measuring insert on the base of the cable (series 56-WEK) are dedicated for temperature measurements in low-pressure installations, in various media, including gas, liquid, solid (plastic). Depending on the type of measuring insert and protection tube can be used up to +400°C (+500°C on special demand).

As standard, the threaded process connection is welded to the protection tube which ensures a tight and stable process connection.

Versions with rotating process connection with external or internal thread are also available, even with spring clamp. Depending on the mounting requirements and the measured temperature, the thread is located directly under the head or is separated from the head.

Protection tubes are usually made of stainless steel, in a straight form, closed at the bottom. For fast response time of temperature changes we offer construction with a narrowed measuring tip.

For special applications (e.g. high accuracy), we recommend using high-tolerance measuring sensors in a 4-wire connection.

Resistance characteristics and limit deviations of our resistance sensors (Pt100, Pt1000, Pt500) are comply with the standard EN 60751 (IEC60751).

RTDs with characteristics individually selected by the customer are made on request.



Applications Temperature Sensors of the product group 56-WEK



Machines and devices



Liquids



Heating appliances



Refrigeration and freezing chambers



Plastics industry



HVAC

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Example, typical version of temperature sensor series 56-WEK

1 Terminal head	
B	BUSH
BUS	BUZH
BUZ	NA
BBK	DL / MA

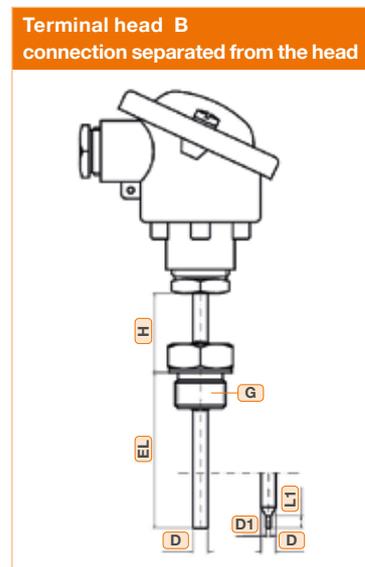
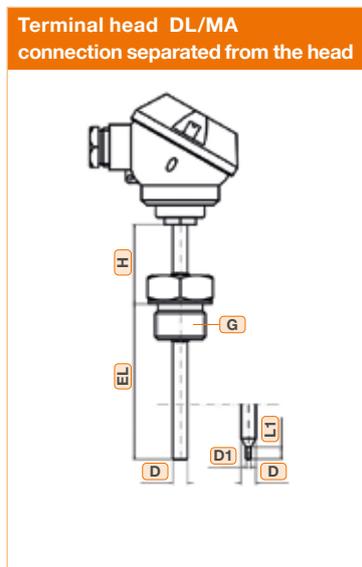
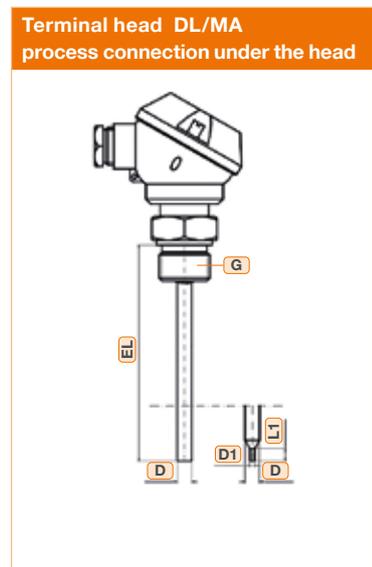
2 Process connection
G 1/4 A
G 1/2 A
G 3/4 A
G 1 A
M18 x 1.5
M20 x 1.5

3 Protection tube (diameter from 3 mm)
Material 1.4571 (316Ti)
Material 1.4404 (316L)
Material 1.4303 (305)

4 Measuring tip
Flat
Tapered
Perforated
Others



Construction



- EL** Installation length
- H** Neck tube
- G** Thread, process connection
- D** Diameter protection tube
- D1** Diameter Taper
- L1** Length Taper

Special versions, such as another type of material, process connections or additional mounting accessories are available according to individual arrangements.

Feel free to contact us!

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Article number key

Product group	5	6	-	1	1	0	1	6	3	0	0	-	0	1	5	0	.	G	0	1	4	.	1	2	0	PT8
Limit deviation / Electrical circuit																										
1x Pt100-2L, Class B				1	1																					
1x Pt1000-2L, Class B				1	6																					
1x Pt100-3L, Class B				2	2																					
1x Pt100-3L, Class A				2	3																					
Others see table 1 on page 5																										
Measuring insert / Measuring range																										
Cable version / -50°C to +200°C						2																				
Cable in pipe / -50°C to +200°C						3																				
Cable version -50°C to +260°C						4																				
Cable in pipe / 0°C to +400°C						7																				
Others see table 2 on page 5																										
Terminal head																										
Form B							1																			
Form DL/MA							7																			
Others see table 3 on page 5																										
Diameter and material of protection tube																										
6 mm, Mat. 1.4404								6	3																	
9 mm, Mat. 1.4571								9	4																	
Others see table 4 on page 5																										
Process connection																										
External thread under the head, welded to the pipe										0																
External thread welded to the tube and neck tube										1																
Others see table 5 on page 5																										
Measuring tip																										
Flat											0															
Tapered											2															
Others see table 6 on page 5																										
Nominal length (EL)																										
In mm, e.g. 150 mm												0	1	5	0											
Process connection, thread																										
Thread G1/4"																		G	0	1	4					
Thread G1/2"																		G	0	1	2					
Thread M20x1,5																		M	F	2	0					
Others on request																										
Neck tube (if present)																										
In mm, e.g. 120 mm																							1	2	0	
Accessories / Transmitters																										
Wireless transmitter 2.4 GHz or 868 MHz																										PT6
GT 5333BL (output 4...20 mA)																										PT8
Others see table 7 on page 5																										

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Allocation tables

Table 1 – Limit deviation / Electrical circuit

Sensor x electrical circuit	Limit deviation								
	Pt100 Class B	Pt100 Class A	Pt100 Class AA	Pt100 Class 1/5B	Pt100 Class 1/10B	Pt1000 Class B	Pt1000 Class A	Ni1000LG	NTC-1,8k
1x 2-wire	11	12	13	14	15	16	17	77	78
1x 3-wire	22	23	24	25	26	27	28	80	81
1x 4-wire	33	34	35	36	37	38	39	83	84
2x 2-wire	44	45	46	47	48	49	50	86	87
2x 3-wire	55	56	57	58	59	60	61		
2x 4-wire	66	67	68	69	70	71	72		

Table 2 – Measuring insert / Measuring range

Measuring range	Measuring insert	
	Cable version	Cable in pipe
-50°C to +150°C	0	1
-50°C to +200°C	2	3
-50°C to +260°C	4	5
0°C to +400°C	6	7
Others	8	9

Table 3 – Terminal head

Type / Terminal head	Code
Battery powered indicator - GPA100	0
Terminal head Form B	1
Terminal head Form BUS	2
Terminal head Form BUZ	3
Terminal head Form BUSH	4
Terminal head Form BUZH	5
Terminal head Form NA	6
Terminal head Form DL (MA)	7
Terminal head BUZH with LED indicator	8
Others	9

Table 4 – Diameter and material of protection tube

Diameter	Material							
	1.4301	1.4401	1.4404	1.4571	1.4841	1.4541	1.4303	Others
3 mm	31	32	33	34	35	36	37	30
4 mm	41	42	43	44	45	46	47	40
5 mm	51	52	53	54	55	56	57	50
6 mm	61	62	63	64	65	66	67	60
7 mm	71	72	73	74	75	76	77	70
8 mm	81	82	83	84	85	86	87	80
9 mm	91	92	93	94	95	96	97	90
10 mm	01	02	03	04	05	06	07	09
11 mm	11	12	13	14	15	16	17	19
12 mm	21	22	23	24	25	26	27	29
15 mm	58	59	48	49	38	39	28	89
Others								00

Table 5 – Construction of process connection

Process connection, Thread	Neck tube			
	Without neck tube	Yes, diameter of tube is equal to the diameter of the sensor	Yes, another diameter of the neck tube	Other construction
External thread, welded connection	0	1	5	
External thread, rotary connection		2	6	
Internal thread, welded connection		3	7	
Internal thread, rotary connection		4	8	
Other construction				9

Table 6 – Measuring tip

Shape of measuring tip	Code
Flat	0
Rounded	1
Tapered	2
Perforated	3
Cone (Concentric)	4
Oblique	5
Expanded	6
Others	9

Table 7 – Accessories / Transmitters

Temperature transmitters	Code
GT 5333A (output 4...20 mA)	PT1
GT 5331D (output 4...20 mA)	PT2
GT 5335A (output 4...20 mA + HART®)	PT3
Wireless transmitter 2,4 GHz or 868 MHz	PT6
Transmitter with voltage output 0...10 V	PT7
GT 5333BL (output 4...20 mA)	PT8
Others	PT9



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