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JUMO Process Control, Inc.
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Bimetal Dial Thermometer

Standard version

Special features

- Class 1.5
- Display ranges -50°C to +500°C
- Steel case zinc-plated
- Case sizes ∅: 63 mm, 80 mm and 100 mm
- Protection type IP 51



Type 608001/1810 **Type 608001/0110**

Brief description

The locally displaying standard thermometers work according to the principle of a bimetal coil. The measuring principle is based on the fact that the bimetal coil is exposed to the medium temperature in a stainless steel or brass protection tube. The coil rotates as the temperature increases or falls. The rotation acts directly on the indicator via an axis. The indicator deflection is therefore proportional to the change of temperature.

Technical data

Basic type extension	0163, 0180, 0110, 1863, 1880, 1810
Case	Case and bezel made of galvanized steel sheet; bracket made of aluminum (design type 18)
Protection type	IP 51 according to DIN EN 60529
Front pane	Glass
Scale	Polished aluminum, with black lettering
Display	Linear, class 1.5 similar to DIN EN 13190
Time constant $t_{0.632}$	Approx. 30 s, measured in flowing water with a probe Ø of 10 mm made of stainless steel
Influential effect of the ambient temperature	No influence
Limit value temperatures	-30 to +80°C (storage and transport -30 to +80°C)
Rated position	Any

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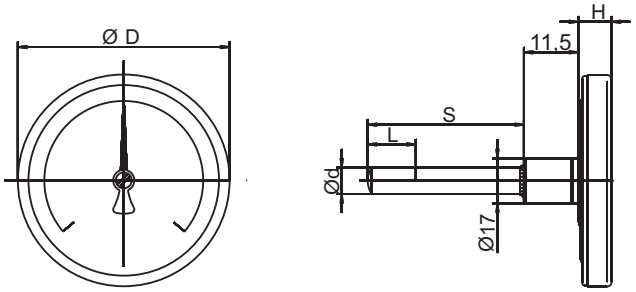
Technical data

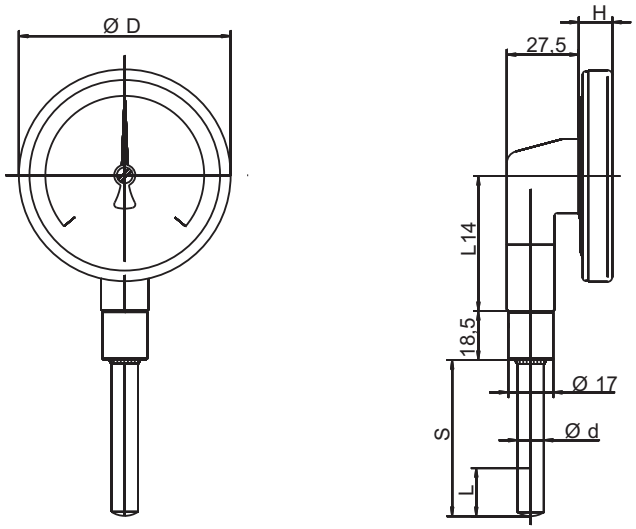
Display range (AB)	Display range in °C	Measuring range in °C	Tolerance in K (+/-)
632	-20 to +60	-10 to +60	1.5
810	0 to +80	+10 to +70	1.5
818	0 to +120	+20 to +100	3.0
826	0 to +160	+20 to +140	3.0
832	0 to +200	+20 to +180	3.0
834	0 to +250	+30 to +220	4.0
840	0 to +300	+30 to +270	8.0
854	0 to +500	+50 to +450	8.0

Dimensions

Types:
608001/0163
608001/0180
608001/0110

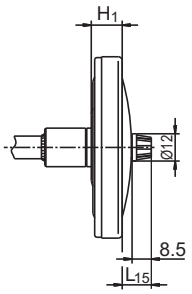


Types:
608001/1863
608001/1880
608001/1810



For dimensional specifications about Ø d,
see data sheet 608730.

Extra codes **430**



Type	Ø D	H	H_1	L_{14}	L_{15}
608001/0163	63	13	14	- -	12
608001/1863				26	
608001/0180	83	13	14	- -	13
608001/1880				51	
608001/0110	100	16	16	- -	13
608001/1810				51	

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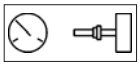
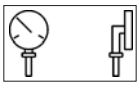
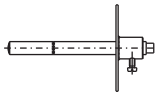
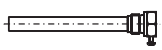
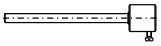
Order details

Order code	(1)	Basic type	
		Mechanical dial thermometer, standard version class 1.5	
		Design type 01	Case size Ø
608001/0163			63 mm
608001/0180			80 mm
608001/0110			100 mm
		Design type 18	Case size Ø
608001/1863			63 mm
608001/1880			80 mm
608001/1810			100 mm

	(2)	Display range (AB) in °C
632		-20 to +60
810		0 to +80
818		0 to +120
826		0 to +160
832		0 to +200
834		0 to +250
840		0 to +300
854		0 to +500

	(3)	Process connection (PC)		
010		TA 01	Protection tube with collar	
844		TA 02	Protection tube with union nut and loose screw connection [a]	
845		TA 03	Protection tube with loose union nut	
841		TA 04	Protection tube with fixed hexagon [a]	
847		TA 06	Protection tube with displaceable threaded fitting (max. 20 bar)	
018		TA 08	Protection tube with displaceable mounting plate made of zinc-plated steel and fixing screw	
858		SH 04	Single-section screw-in protection tube	
891		SH 05	Multi-sectional screw-in protection tube	
913		SH 07	Multi-sectional screw-in protection tube with fixing screw	
820		SH 09	Multi-sectional weld-in protection tube with fixing screw	

[a] Screw-in spigot according to DIN 3852 form A (not for NPT threads).

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(4) Ø Process connection (PC) [b]

6	6 mm
10	10 mm
12	12 mm (only with SH 05, SH 07)
14	14 mm (only with SH 05, SH 07, SH 09)
17	17 mm (only with SH 04)

(5) Thread type of process connection (PC) [b]

000	Without thread (only TA 01)
103	Screw connection G 3/8
104	Screw connection G 1/2
105	Screw connection G 3/4
144	Screw connection 1/2-14NPT

(6) Probe material

26	Stainless steel (CrNi, 1.4571)
46	Brass (CuZn)

(7) Material of process connection (PC) [b]

26	Stainless steel (CrNi, 1.4571)
46	Brass (CuZn)

(8) Insertion length, process connection (PC) dimension "S"

100	100 mm
150	150 mm
200	200 mm
. . .	Special length (specifications in plain text – 50 mm increments)

(9) Extra code (TZ)

000	Without extra code
430	Drag indicator (only with basic type extension 0163, 0180, 0110, 1863, 1880, 1810 – display range min. 100 K)
522	Customized scale

Special versions upon request!

[b] For the description and special features, refer to data sheet 608730.

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		
Order code	608001/. . . .	-		-		-		-		-		-		-		/		,	. . .
Order example	608001/0163	-	818	-	845	-	10	-	104	-	96	-	46	-	100	/	000 [c]	,	. . .

[c] List extra codes in sequence, separated by commas.

Stock versions

Part no.	Type	Display range °C	ø / dimension "S" or "EL"
80000580	608001/0163-818-913-12-104-46-46-50/000	0 to +120	12 x 50
80000581	608001/0163-818-913-12-104-46-46-63/000	0 to +120	12 x 63
80000582	608001/0180-818-913-12-104-46-46-50/000	0 to +120	12 x 50
80000583	608001/0110-818-913-12-104-46-46-100/000	0 to +120	12 x 100
80000101	608001/0110-834-841-10-104-01-01-200/000	0 to +250	10 x 200
80000103	608001/1810-818-841-10-104-46-01-100/000	0 to +120	10 x 100

Delivery within 3 working days after receipt of order