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JUMO Instrument Co. Ltd.
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JUMO Process Control, Inc.
 6733 Myers Road
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Bimetal Dial Thermometer

Industry version

Special features

- Class 1
- Display ranges from -50°C to +500°C
- Stainless steel case
- Case sizes Ø: 60 mm, 80 mm and 100 mm
- Protection type IP54, also available IP65

Brief description

The locally displaying industrial 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 pointer indicator is therefore proportional to the change of temperature.

All versions of the JUMO bimetal dial thermometer 608002 comply with DIN EN 13190, class 1.



Type 608002/1810

Type 608002/0110

Technical data

Basic type extension	0160, 0180, 0110, 1860, 1880, 1810
Case	Case and bezel made of stainless steel; bracket made of aluminum (design 18)
Protection type	IP 54 according to DIN EN 60529 (IP 65 in the case of extra code 404)
Front pane	Glass with extra code 404 made of acrylic glass (PMMA)
Scale	Polished aluminum, with black lettering
Display	Linear, class 1 similar to DIN EN 13190
Time constant _{t_{0.632}}	Approx. 20 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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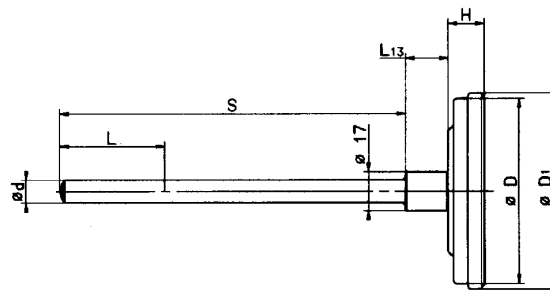
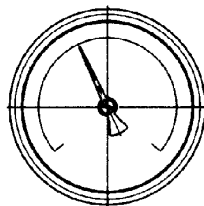
Technical data (cont.)

Display range (AB)	Display range in °C	Measuring range in °C	Tolerance in K (+/-)
632	-20 to +60	-10 to +60	1.0
643	-20 to +120	0 to +100	2.0
469	-40 to +40	-30 to +30	1.0
357	-50 to +50	-40 to +40	1.0
810	0 to +80	+10 to +70	1.0
814	0 to +100	+10 to +90	1.0
818	0 to +120	+20 to +100	1.0
832	0 to +200	+20 to +180	2.0
834	0 to +250	+30 to +220	2.5
840	0 to +300	+30 to +270	5.0
848	0 to +400	+50 to +350	5.0
854	0 to +500	+50 to +450	5.0

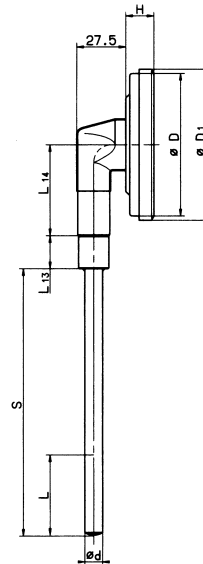
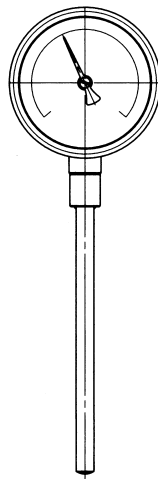
Dimensions

Types:
 608002/0160
 608002/0180
 608002/0110

Type	Ø D	Ø D ₁	H
608002/0160	60	65	17.5
608002/0180	80	85	18.5
608002/0110	100	106	18.5



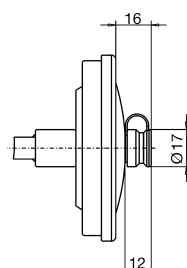
Types:
 608002/1860
 608002/1880
 608002/1810



For dimensional specifications about Ø d and L₁₃ see data sheet 608730.

Extra codes

434



Type	Ø D	Ø D ₁	H	L ₁₄
608002/1860	60	65	17.5	26
608002/1880	80	85	18.5	51
608002/1810	100	106	18.5	51

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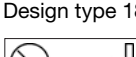


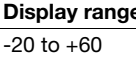
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Order details






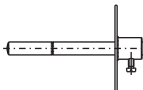




Order code (1) Basic type

Order code	Basic type
	Mechanical dial thermometer, industrial version, class 1
	Design type 01 Case size Ø
608002/0160	 60 mm
608002/0180	 80 mm
608002/0110	 100 mm
	Design type 18 Case size Ø
608002/1860	 60 mm
608002/1880	 80 mm
608002/1810	 100 mm

(2) Display range (AB) in °C

632	-20 to +60
643	-20 to +120
469	-40 to +40
357	-50 to +50
810	0 to +80
814	0 to +100
818	0 to +120
832	0 to +200
834	0 to +250
840	0 to +300
848	0 to +400
854	0 to +500

(3) Process connection (PC) ^b

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)

^b For description and particularities refer to data sheet 608730.

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(4) Ø Process connection (PA)^b

6	6 mm	(not with display ranges 628, 564, 807)
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)
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(7) Material of process connection (PC)^b

26	Stainless steel (CrNi, 1.4571)
----	--------------------------------

(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
404	IP 65 (only with basic type extension 0160, 0110, 1860, 1810) not with TZ 430
430	Drag indicator (only with basic type extension 0160, 0180, 0110, 1860, 1880, 1810 – display range min. 100 K)
434	Drag indicator can be adjusted with a screwdriver, protected by a cover
522	Customized scale

Special versions upon request!

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

^b For description and particularities refer to data sheet 608730.

Order code (1) (2) (3) (4) (5) (6) (7) (8) (9)
 608002/... - - - - - - - - / , ...
 Order example 608002/0180 - 818 - 845 - 10 - 104 - 26 - 26 - 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"
80001185	608002/0180-818-847-6-104-26-26-200/000	0 to +120	6 x 200
80001186	608002/0180-834-847-6-104-26-26-200/000	0 to +250	6 x 200

Delivery within 3 working days after receipt of order