

BIMETAL-POINTER-THERMOMETER

Chemical version acc. EN 13190
 bayonet case
 IP 65



With or without filling



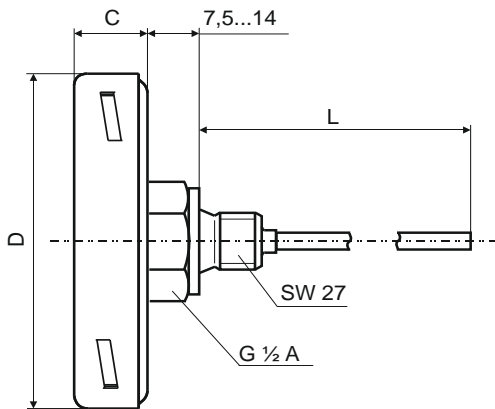
Suitable for chemical and petrochemical industry,
 food, pulp and paper industry and for machine and
 apparatus construction.

Model	B11	B12	B13	Options
Diameter	63, 100, 160			
Symbol				
Connection	back	bottom	rotatable	
Accuracy class	cl. 1 (without filling) / gl. 2 (filled)			
Measuring range °C	0-60, 0-80, 0-100, 0-120, 0-160, 0-200, 0-250, 0-300, 0-400, 0-500, 0-600, -50 / +50, -40 / +40, -40 / +60, -30 / +50, -30 / +70, -20 / +40, -20 / +60, -20 / +80, +50 / +300			Other on request, dual scale
Applications	Permanent exposure: measurement range short-term up to 1h: 1.1 x measuring range			
Case / ring	bayonet case, stainless steel, 1.4301 (304)			1.4571 on request
Dial	White aluminum with black lettering			
Window	Instrument class			Acrylic glass, safety glass
Measuring element	Bimetal coil			
Sensor	stainless steel 1.4571			
Working pressure	25 bar			
Sensor types	B1, B3, B4, B4.1, B5, B6			
Sensor length	63 up to 400 mm, The minimum probe length is a function of active length (La) and sensor type			
Neck tube	useful up to 300°C			
Process connection	see page 3			Other on request
Filling	depending on the version glycerine or silicone oil			
Protection	IP 65 acc. EN 60 529/IEC 529			
Additional equipment				Mark pointer

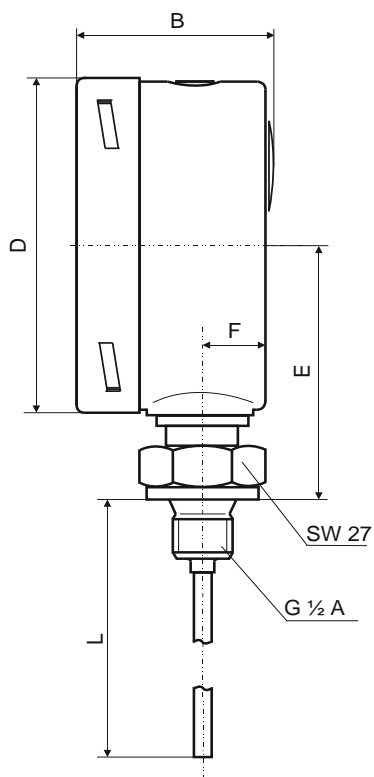
Dimension drawings

Dimensions in mm

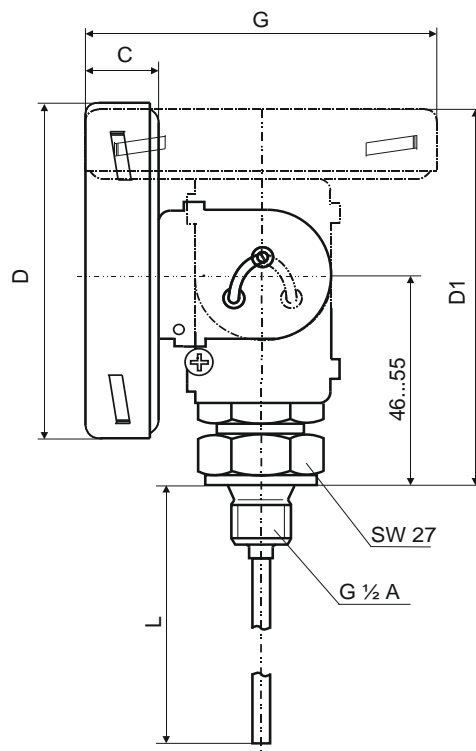
NG	D	B	C	D1	E	F	G
100	101	54	21	94...103	65...73	18,5	53
160	162	53	28	101...110	95...101	17	60



Model B11



Model B12



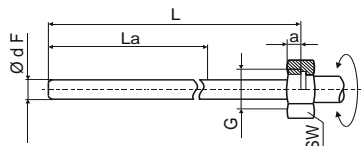
Model B13

Sensor types

Type	Designation	Type acc. DIN 13 190	Dimensions
------	-------------	-------------------------	------------

suitable protection tubes

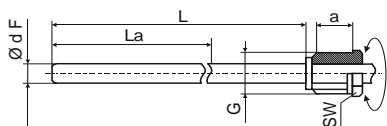
B3 Turnable union nut Form 5



G	SW	a
G½	27	10
G¾	32	12
M20x1,5	27	10
M24x1,5	32	12
M27x2	32	12

Form 4.1
Form 4.1F
Form 8
Form 9

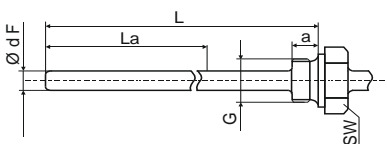
B4 Male thread, turnable Form 4



G	SW	a
G½B	22	20
G¾B	27	23
M18x1,5	22	14
M20x1,5	22	20

Form 4
Form 4F
Form 5
Form 6 and 7

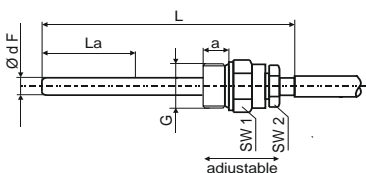
B4.1 Male thread, rigid Form 6
Form 7



G	SW	a
G½B	27	14
G¾B	32	16
½"NPT	27	19
¾"NPT	27	19
M18x1,5	24	14
M20x1,5	27	14

Form 4
Form 4F
Form 5
Form 6 und 7

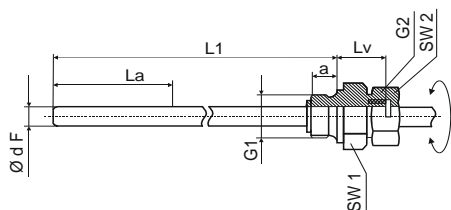
B5 Male thread compression fitting Form 2
Form 3



G	SW1	SW2	a	Lk
G½B	27	22	14	42
G¾B	32	22	16	42
½"NPT	27	22	19	42
¾"NPT	27	22	19	42
M20x1,5	27	22	14	42

Form 4
Form 4F
Form 5
Form 6 and 7

B6 Male thread turnable double male adapter



G1	G2	SW1	SW2	a	Lv
G½B	G½B	27	27	14	28
G¾B	G½B	32	27	16	28
½"NPT	G½B	27	27	19	28
¾"NPT	G½B	27	27	19	28
M20x1,5	M20x1,5	27	27	14	28
M24x1,5	M20x1,5	32	27	14	28
M27x2	M20x1,5	32	27	16	28

Form 4
Form 4F
Form 5
Form 6 and 7

La - Active stem length
L / L1 Ordering length
Ø dF - 6 or 8 mm

Details
see datasheet
protection tube

Minimum stem length, Active lengths and maximum realisable stem length

			Stem Ø F				
			6 mm		8 mm		
			Span (temperature difference) Δ				
Model	Lengths	Thread	≥100 K	=80K	=60K	≥80 K	=60K
all models	La	all standard threads	40	60	70	40	60
B1 B4	L1min	all standard threads	45	65	75	45	65
B3	L1min	all standard threads	52	72	82	52	72
B4.1	L1min	all standard threads	60	80	90	60	80
B5	L1min	all standard threads	95	115	125	95	115
B6	Lmin	all standard threads	60	80	90	60	80
Other on request							

The temperature difference $\Delta T = 60K$ correspond to e.g. the temperature range 0/60°C but also -20/40°C.

The minimum length L_{min} / $L1min$ of the stem is the smallest possible stem length depending on the active length L_a (sensitive portion) and the stem model.

The active length L_a of the stem has to immerse completely into the medium, to grant a measuring result, which correspond to the accuracy class.

Indication ranges/Measuring ranges, Limits of error

Nominal ranges °C	Measuring ranges °C	Scale subdivision °C	Max. error +/- °C
0 - 60	10 - 50	1	1
0 - 80	10 - 70	1	1
0 - 100	10 - 90	1	1
0 - 120	10 - 110	2	2
0 - 160	20 - 140	2	2
0 - 200	20 - 180	2	2
0 - 250	30 - 220	5	2,5
0 - 300	30 - 270	5	5
0 - 400	50 - 350	10	5
0 - 500	50 - 450	10	5
0 - 600	100 - 500	10	10
- 50 - 50	- 40 - 40	1	1
- 40 - 40	- 30 - 30	1	1
- 40 - 60	- 30 - 50	1	1
- 30 - 50	- 20 - 40	1	1
-30 - 70	- 20 - 60	1	1
- 20 - 40	- 10 - 30	1	1
- 20 - 60	- 10 - 50	1	1
- 20 - 80	- 10 - 70	1	1
50 - 300	80 - 270	5	2,5
50 - 400	100 - 350	5	5
100 - 400	150 - 450	10	5