

Types D1, D2, D4 and D5 // For thermometers with union nut, type DC



D1

Your advantages

Type	D1 / D2 / D4 / D5
	<ul style="list-style-type: none"> • Suitable materials for your pipe system • Minimizes the risk of sensor breakage during operation • Replacement of the measuring device possible without draining the system • Protection of the sensor against pressure and inflow

Technical data

Type	D1 / D2 / D4 / D5
Version	Made of solid material to be welded in
Connection thread immersion tube*	M8 x 1.5
Medium / Application area	Liquid and gaseous media
Protection tube length l	140 mm, 200 mm and 260 mm
For immersion tube diameter	6.5 mm
Process connection	for welding in
Nominal pressure	Max. 400 bar
Medium temperature	depending on material, pressure and flow speed

* Thermometer is attached via HDo nipple or neck tube

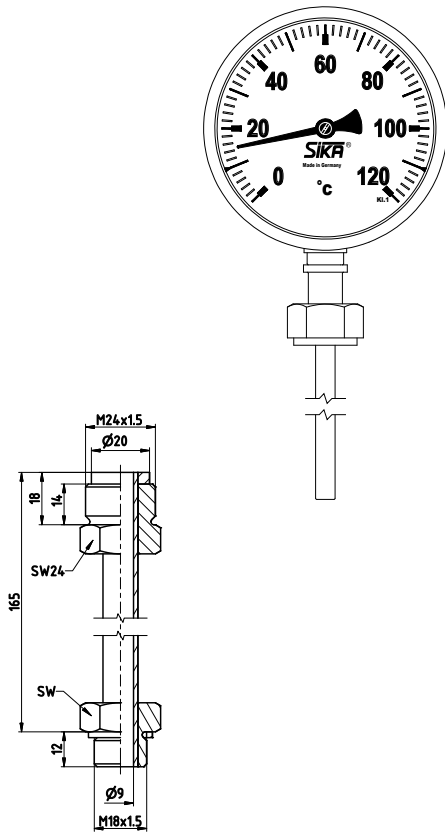


Fig. 1

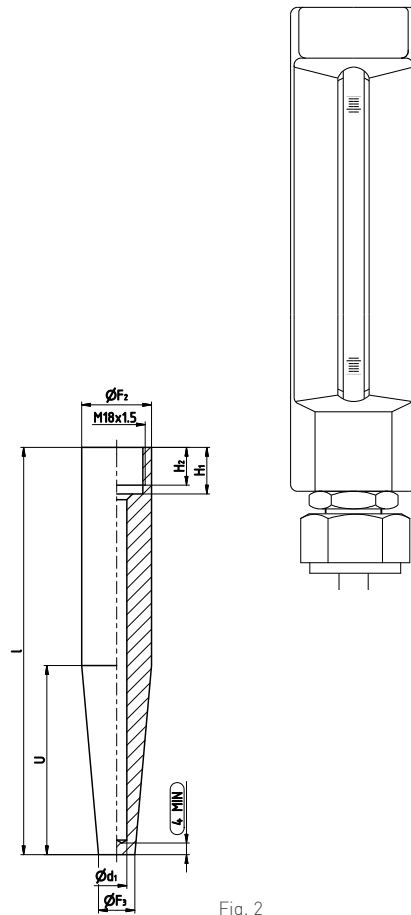


Fig. 2

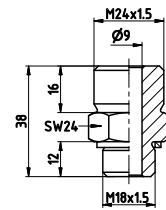


Fig. 3

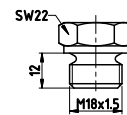


Fig. 4

Immersion lengths (l₃ of the thermometer) [mm]

Type	With neck tube	With double threaded adapter
D1	295	155
D2 / D4	355	215
D5	415	275

Abmessungen [mm]

Protection tube length l	Immersion length U	F ₂	F ₃	d ₁	N
		D	D	D	D
140 (D1)	65	24 h 7	12,5	7	M18 x 1.5
200 (D2)	125	24 h 7	12,5	7	
200 (D4)	65	24 h 7	12,5	7	
260 (D5)	125	24 h 7	12,5	7	

Accessories

The protection tube [Fig. 2] and the thermometer are either connected with a double threaded adapter [Fig. 3] or with a neck tube [Fig. 1]. This combination provides the required installation length l₁. The screwed sealing plug [Fig. 4] helps to prevent contamination when assembling the protection tube.

- Neck tube 165 mm, M18 x 1.5 / M24 x 1.5, steel, nickel-plated [Fig. 1] Order-No. 165020V
- Double threaded adapter M18 x 1.5 / M24 x 1.5, steel, nickel-plated [Fig. 2] Order-No. 00076V
- Plug screw M18 x 1.5, brass [Fig. 3] Order-No. 000061



DIN 43772, Form 4, for thermometer connection type Dc.

Order code					
Protection tube type					
Type D		180.9			
Type	Protection tube length l				
D1	140 mm	001	0		
D2	200 mm	002	0		
D4	200 mm	004	0		
D5	260 mm	005	0		
Materials					
Stainless steel 1.4571			=	3	
Steel 1.0460			=	6	
Stainless steel 1.7335			=	7	
Stainless steel 1.7380			=	8	
Stainless steel 1.5415			=	9	
Example order number		180.9	001	0	3

Order example combination of protection tube type and thermometer

Protection tube selection

Protection tube type D = 180.9
 Selection of the protection tube length, e.g. 200 mm = 180.9.0020
 Selection of the material, e.g. stainless steel 1.4571 = 180.9.0020.3

Combination of thermometer and neck tube

Selection of the neck tube 165 mm = 165020V
 Determine the thermometer installation length using the 'Immersion length' table
 Select a thermometer with connection type Dc from the industrial thermometer or dial thermometer chapter. Pay attention to the specified installation length l_3 . = $l_3 = 355$ mm

Combination of thermometer and double threaded adapter

Selection of the double threaded adapter = 00076V
 Determine the thermometer installation length using the 'Installation length' table
 Select a thermometer with connection type Dc from the industrial thermometer or dial thermometer chapter. Pay attention to the specified installation length l_3 . = $l_3 = 215$ mm

Materials		
Type		D
Brass	CW617N	
Steel	Thread connection: 1.0718 tube: 1.0308 E235	
	1.0718	
Stainless steel	1.4571, X6CrNiMo Ti17-12-2	✓
Special brass	CW702R	
Copper-nickel alloy	CW354H CuNi30Mn1Fe	
Steel	1.0460 P250GH	✓
Stainless steel	1.7335 13CrMo4-5	✓
	1.7380 10CrMo9-10	✓
	1.5415 16Mo3	✓
Special brass	CW710R	