

SITRANS T measuring instruments for temperature

Resistance thermometers

Accessories

Measuring inserts, not explosion protected

Design

Components (design to DIN 43762)

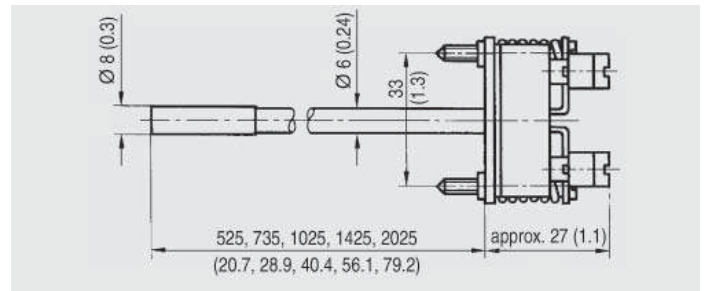
- Measuring insert with resistor,
- insert tube with retaining plate,
- terminal block with clamping springs and 2 or 3 internal conductors of Cu-Ni sheathed wire for each Pt100 measuring resistor.

The resistance of the internal conductors is stated on the measuring insert if it is greater than 0.2 Ω .

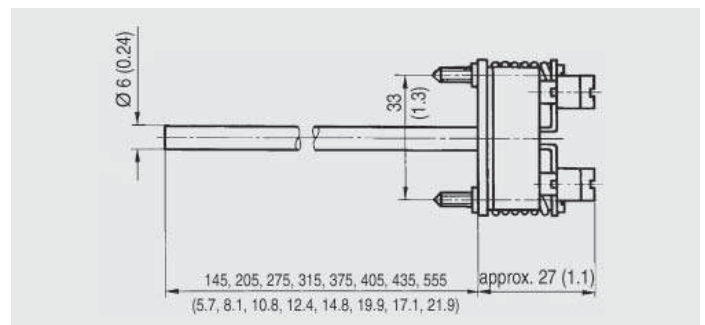
The measuring inserts have a filling of Al_2O_3 powder which surrounds the measuring resistor and the internal conductors and results in a high vibration resistance (for temperatures up to 600 °C (1112 °F)). The winding is embedded in a ceramic body.

If the vibrations at the measuring location are greater than normal, the special vibration-proof measuring inserts should be used (for temperatures up to 450 °C (842 °F)). The measuring resistor is embedded in an homogeneous, fused glass body.

Dimensional drawings



Measuring insert for flue gas resistance thermometers, dimensions in mm (inches)



Measuring insert for low-pressure, high-pressure and flange-type resistance thermometers, dimensions in mm (inches)

Selection and Ordering data

Order No.

Measuring insert for flue gas resistance thermometer 7MC1000

for temperatures to 600 °C (1112 °F), stainless steel measuring insert tube
Measuring resistor: Winding embedded in ceramic

Measuring insert not explosion protected

One Pt100 measuring resistor/three-wire circuit

Measuring insert length mm (inch):	Mounting length of the resistance thermometer mm (inch):	Weight kg (lb):	
• 525 (20.7)	500 (19.7)	0.22 (0.49)	7MC1900-1EA
• 735 (28.9)	710 (28.0)	0.27 (0.60)	7MC1900-2EA
• 1025 (40.4)	1000 (39.4)	0.32 (0.71)	7MC1900-3EA
• 1425 (56.1)	1400 (55.1)	0.42 (0.93)	7MC1900-4EA
• 2025 (79.7)	2000 (78.7)	0.62 (1.37)	7MC1900-5EA

Selection and Ordering data

Order No.

Measuring insert for low-pressure, high-pressure and flange-type resistance thermometers

Measuring resistor: Winding embedded in ceramic (max. 600 °C (1112 °F))

Measuring insert not explosion protected

One Pt100 measuring resistor/three-wire circuit

Measuring insert length	Screw-in thermometer without neck tube, 7MC1006	Screw-in thermometer with neck tube, 7MC1007 and 7MC1008	Screw-in thermometer 7MC1010	Flange-type thermometer 7MC1017	Flange-type thermometer 7MC1041	Weight	
mm (inch)	mm (inch)	mm (inch)	Total length without connection head mm (inch)	Mounting length mm (inch)	Mounting length mm (inch)	kg (lb)	
• 145 (5.7)	100 (3.9)	–	–	–	–	0.15 (0.33)	7MC1910-1JA
• 205 (8.1)	160 (6.3)	–	–	–	–	0.16 (0.35)	7MC1910-2JA
• 275 (10.8)	230 (9.1)	–	–	–	–	0.17 (0.37)	7MC1910-3JA
• 315 (12.4)	–	160 (6.3)	305 (12.0)	160 (6.3)	225 (8.9)	0.18 (0.40)	7MC1910-4JA
• 375 (14.8)	–	–	365 (14.4)	–	285 (11.2)	0.19 (0.42)	7MC1910-5JA
• 405 (15.9)	360 (14.2)	250 (9.8)	395 (15.6)	250 (9.8)	–	0.20 (0.44)	7MC1910-6JA
• 435 (17.1)	–	–	–	–	345 (13.6)	0.20 (0.44)	7MC1910-8JA
• 555 (21.1)	510 (20.1)	400 (15.8)	–	–	–	0.21 (0.46)	7MC1910-7JA

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Measuring insert for low-pressure, high-pressure and flange-type resistance thermometers

Measuring resistor: Winding embedded in ceramic (max. 600 °C (1112 °F))

Two Pt100 measuring resistors/three-wire circuit

Measuring insert length	Screw-in thermometer without neck tube, 7MC1006	Screw-in thermometer with neck tube, 7MC1007 and 7MC1008	Screw-in thermometer 7MC1010	Flange-type thermometer 7MC1017	Flange-type thermometer 7MC1041	Weight	
	Mounting length	Mounting length	Total length without connection head	Mounting length	Mounting length	kg (lb)	
mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	kg (lb)	
• 145 (5.7)	100 (3.9)	–	–	–	–	0.15 (0.33)	
• 205 (8.1)	160 (6.3)	–	–	–	–	0.16 (0.35)	
• 275 (10.8)	230 (9.1)	–	–	–	–	0.17 (0.37)	
• 315 (12.4)	–	160 (6.3)	305 (12.0)	160 (6.3)	225 (8.9)	0.18 (0.40)	
• 375 (14.8)	–	–	365 (14.4)	–	285 (11.2)	0.19 (0.42)	
• 405 (15.9)	360 (14.2)	250 (9.8)	395 (15.6)	250 (9.8)	–	0.20 (0.44)	
• 435 (17.1)	–	–	–	–	345 (13.6)	0.20 (0.44)	
• 555 (21.1)	510 (20.1)	400 (15.8)	–	–	–	0.21 (0.46)	
							7MC1910-1JB
							7MC1910-2JB
							7MC1910-3JB
							7MC1910-4JB
							7MC1910-5JB
							7MC1910-6JB
							7MC1910-8JB
							7MC1910-7JB

Further measuring inserts on request.