

Temperature sensor WGF

With M12 plug // -40...120 °C



Highlights

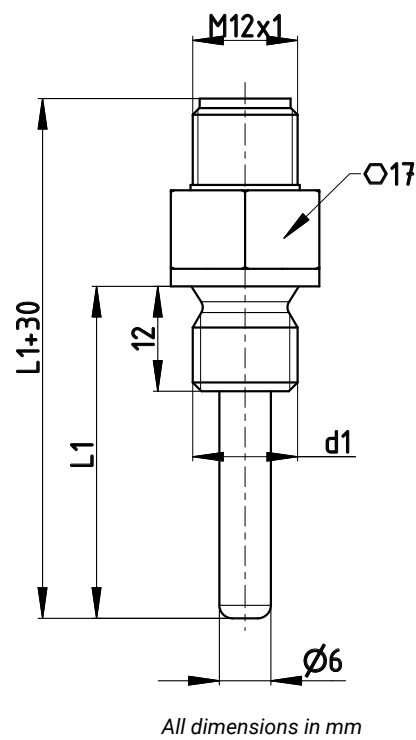
- Air temperature measurement in ventilation and air conditioning systems
- Low heat dissipation by process connection made of glass fibre reinforced plastic
→ significantly lower measurement error
- Clearly identifiable through different coloured plastics → no danger of mistakes during installation
- Safe and compact electrical connection via M12 connector
- High protection class against moisture, dust and dirt ingress
- Short response time → Ideal for controlling rapidly changing process parameters
- Very high vibration resistance → Reliable and long-life operation
- Also available with digital 1-wire bus interface → Low cabling effort
- Type-tested according to DIN EN 50155

Technical data	
Type	Temperature sensor with M12 plug
Measuring range	-40...120 °C
Measuring medium	Ambient air (non-aggressive gases)
Immersion tube length	38 or 100 mm
Immersion tube diameter	6 mm
Process connection	M12 x 1.5
Nominal pressure	n.a. (atmospheric pressure)
Medium temperature	-40...120 °C
Ambient temperature	-40...80 °C
Storage temperature	-25...70 °C
Degree of protection according to EN 60529	IP65

Electrical data	
Sensor element	1 x Pt100 / 3-wire 1 x Pt1000 / 2-wire 1 x 1-wire bus sensor with integrated protection circuit or 1 x NTC 5k
Measuring insert	Not interchangeable
Accuracy	Class A / $\pm(0.15 \text{ K} + 0.002 \times T)$ Class B / $\pm(0.30 \text{ K} + 0.005 \times T)$ 1-wire bus temperature sensor $\pm 0.5 \text{ °C}$ (-10...85 °C) Temperature sensor NTC 5k $\pm 0.5 \text{ °C}$ (Beta 1 %)
Electrical connection	Flange plug M12 x 1, 4-pole, nickel-plated brass

Technical drawing

WGF



Materials

Materials	
In contact with media	
Process connection	Plastic nipple made of glass fibre reinforced plastic (Ultramid A3X2G5)
Immersion tube	Stainless steel 1.4571

Article numbers

Order code								
Type WGF								
Resistance thermometer		W						
Diameter								
6 mm			06					
Material								
Stainless steel 1.4571				3				
Sensor element								
1 x Pt100 3-wire / class B					P31			
1 x Pt1000 2-wire / Class B					P12			
1 x 1-wire bus sensor with integrated protective circuit					E01			
1 x NTC 5k					N01			
Resistance thermometer / Class A					A . .			
Nominal length L1								
38 mm						038		
100 mm						100		
Measuring insert								
Not interchangeable							0	
Electrical connection								
Flange plug M12 x 1								R0
Process connection d1								
M12 x 1.5								RGF
Example order number		W	06	3	P31	038	0	R0 RGF

Note: The plastic nipple is customer-specific, there are proportionate tool costs.