



Infrared Thermometer stationary

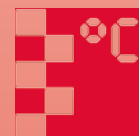


measuring
•
monitoring
•
analysing

TIR-SN



- Measuring range: -20 ... +300 °C to 0 ... +500 °C
- Accuracy: 1.5% of temperature range
- Output: 4-20 mA
- Adjustable emissivity
- Non-contact temperature measurement
- Easy operation



T2

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Description

The TIR-SN is a stationary pyrometer for non-contact temperature measurement of non-metallic surfaces or painted, coated or anodised metals.

The very small housing dimensions enable the integration of the pyrometer into compact production machines, the 2-wire technique enables very easy electrical connection.

The solid and robust design of the instrument guarantees high operational safety even in rough industrial environments.

Special Features

- Very small housing dimensions for easy installation, suitable for use in confined spaces
- 2-wire technique for current supply and temperature measurement at the same time
- Stainless steel housing
- Easy electrical and mechanical installation
- Suitable for food industry
- Ambient temperature up to 70 °C without cooling

Typical Applications

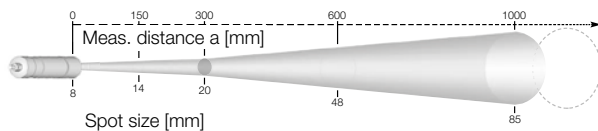
- Plastics
- Rubber
- Paper
- Ceramics
- Food
- Fluids
- Painted parts
- Asphalt
- Wood
- Glass
- Coated metals



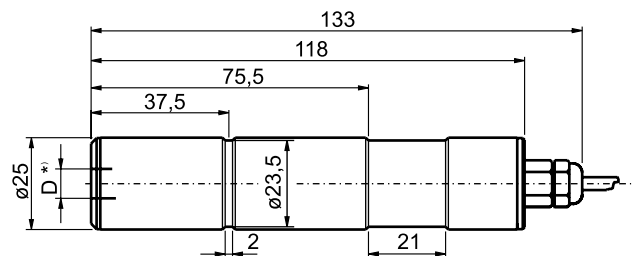
Technical Details

- Spectral range: 8 ... 14 μm
- Optics: Ge lens
- Output: 4 ... 20 mA, load independent current, temperature linear
- Max load: 500 Ω bei 24 V power supply
- Emissivity ϵ : 0.4 ... 1; adjustable
- Response time t_{90} : 300 ms
- Uncertainty: 1,5% of measuring range / °C ($\epsilon = 1, TU = 23^\circ\text{C}$)
- Repeatability: 1% of measuring range
- Temp. dependence: 0 ... 60 °C: 0.03% of measuring range per °C (23 °C)
- Distance ratio: 15 : 1
- Power supply: 24 V_{DC} \pm 25% stabilised, ripple <50 mV
- Ambient temperature: 0 ... 70 °C
- Storage temperature: -20 ... 70 °C
- Housing: stainless steel
- Protection: IP65 (DIN 40050)
- Weight: 215 g
- Connection cable: 2 m length, fixed
- CE label: according to EU directives about electromagnetic immunity

Optics



Dimensions [mm]



Order Details (Example: TIR-SN 410G)

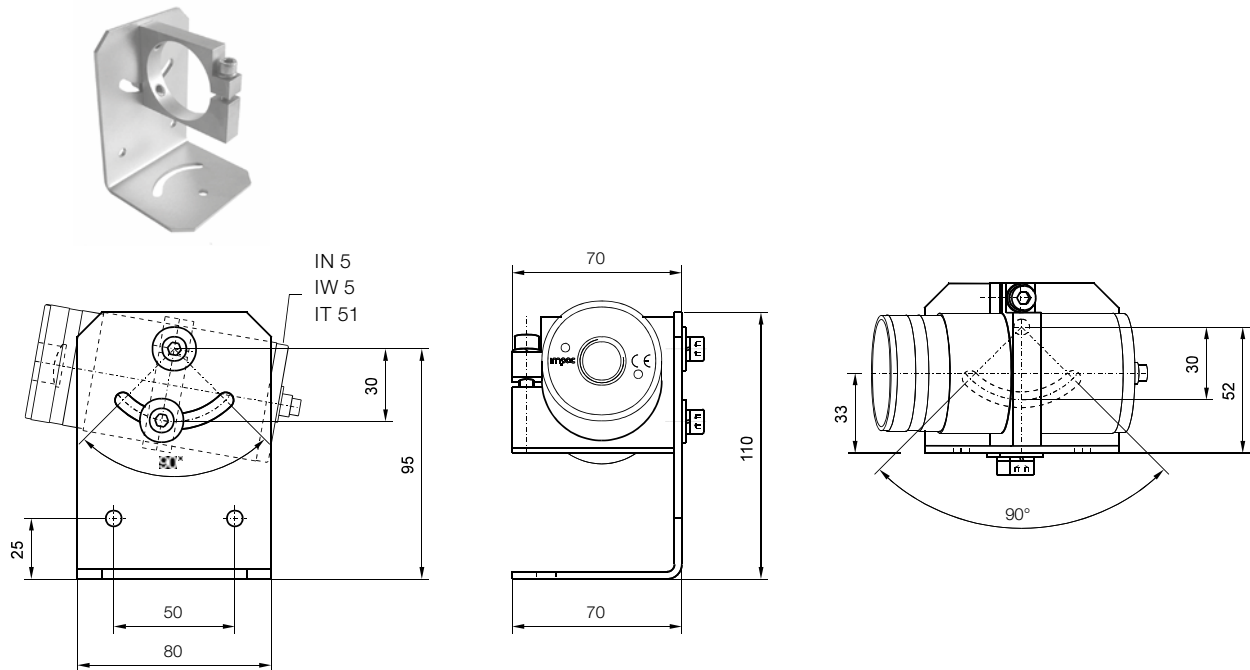
Model	Measuring range	Optics	Infrared detector	Applications
TIR-SN410...	0 ... +100 °C	..G = optic 300 mm (1:15) (standard)	Thermopile spectral range: 8-14 μm	Plastics, rubber, paper, ceramics, food, fluids, painted parts, asphalt, wood, glass, coated metals no bright metal
TIR-SN420...	0 ... +200 °C			
TIR-SN430...	-20 ... +300 °C			
TIR-SN450...	0 ... +500 °C			

Accessories for stationary infrared measuring instruments (TIR-SN)

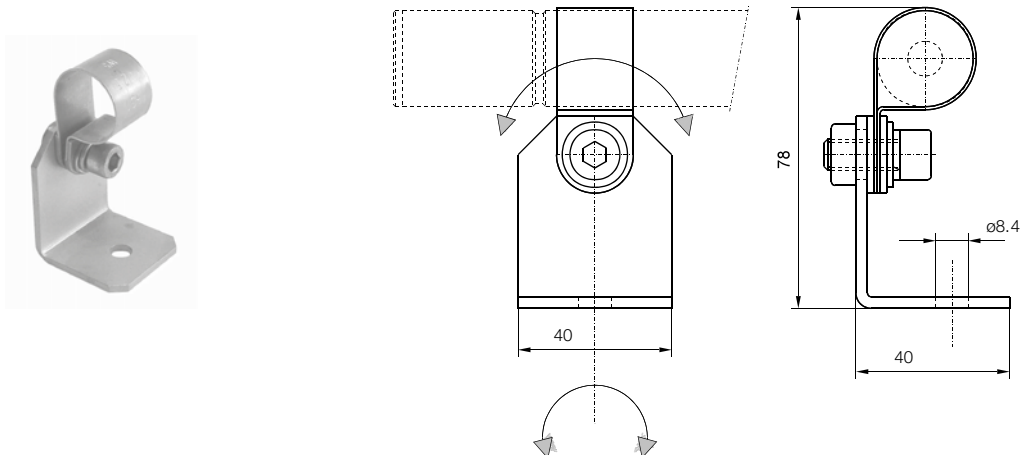
Model	
TIR-ZS100	Adjustable mounting for rough environment. Material stainless steel
TIR-ZS200	Installation and alignment support
TIR-ZS300	Installation tube
TIR-ZS400	Stainless steel vent nozzle to prevent dust depositing on optics
TIR-ZS500	Bracket for flange system
TIR-ZS600	Tube support with vent nozzle and flange
TIR-ZS700	Bracket with silica glass pane for flange system
TIR-ZS800	Ceramic tube 600 mm closed for flange system, max. 1600°C
TIR-ZS900	Cooling housing with integrated vent nozzle for cooling the infrared thermometer and preventing dust depositing on optics. For connection to cooling water circuit and compressed air. Material stainless steel

Dimensions Accessories [mm]

TIR-ZS100

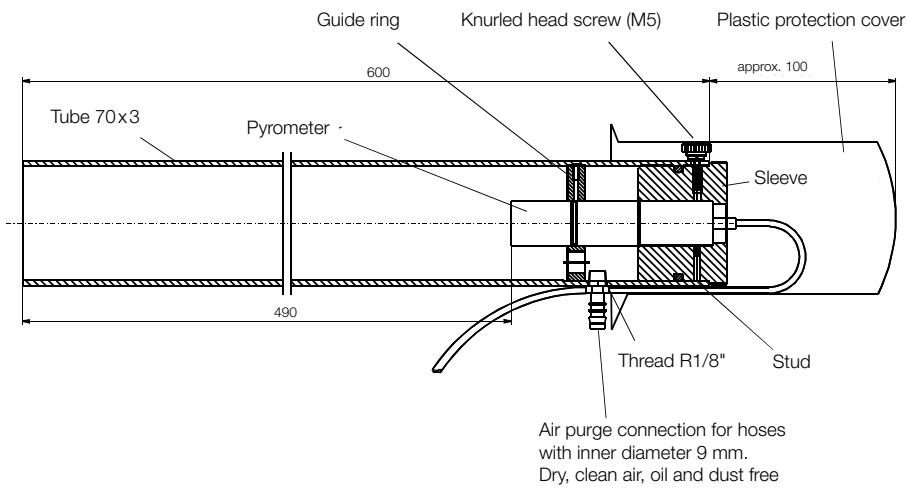


TIR-ZS200

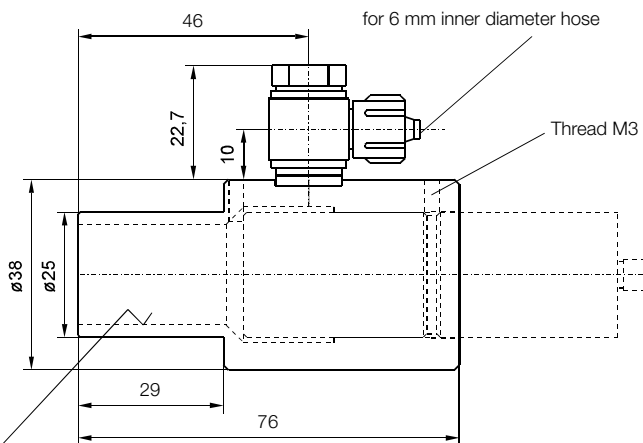


Dimensions Accessories [mm] (continuation)

TIR-ZS300



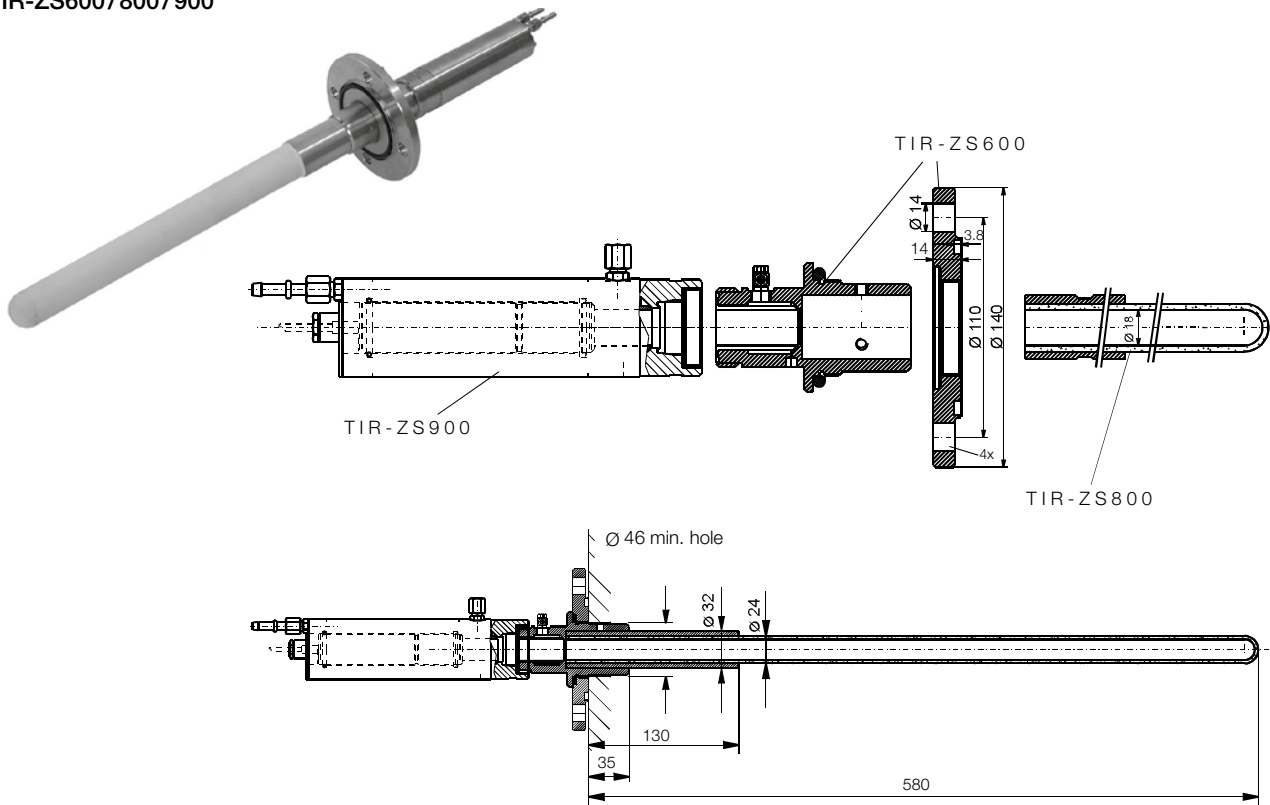
TIR-ZS400



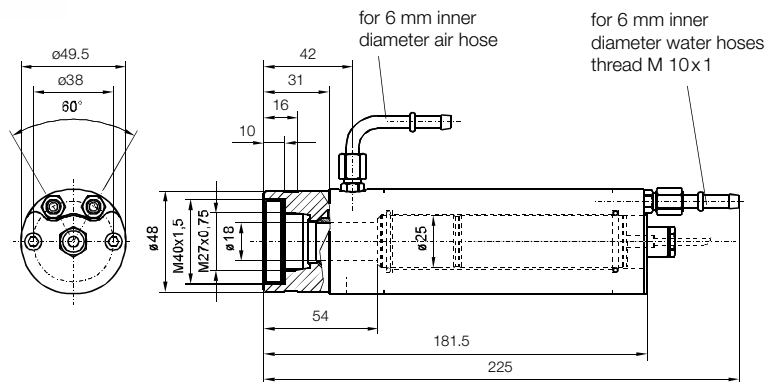
Thread to decrease the reflection

Dimensions Accessories [mm] (continuation)

TIR-ZS600/800/900



TIR-ZS900

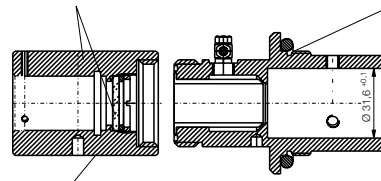


Dimensions Accessories [mm] (continuation)

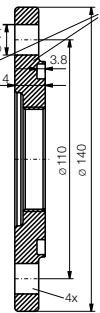
TIR-ZS500/600/700/800



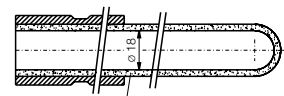
TIR-ZS700
with quartz window



TIR-ZS500
Standard



Tube support with air purge and flange
(TIR-ZS600)



Ceramic tube (TIR-ZS800)

