

Infrared Thermometer

Stationary



measuring
•
monitoring
•
analyzing

TIR-SN



- Measuring Ranges from: -4...572 °F to 32...932 °F
(-20...300 °C to 0...500 °C)
- Accuracy: 1.5% of Temperature Range
- Output: 4-20 mA
- Adjustable Emissivity
- Non-contact Temperature Measurement
- Easy to Operate



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Description

The TIR-SN is a stationary pyrometer for non-contact temperature measurement of non-metallic surfaces and painted, coated, or anodized metals. The very small housing enables integration into compact production machines. The 2-wire technique enables very easy electrical connection. The solid and rugged design guarantees high operational safety even in rough industrial environments.



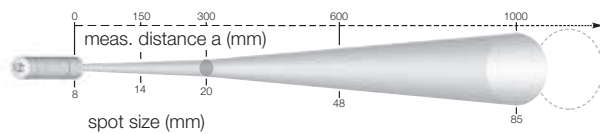
Special Features

- 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 the Food Industry
- Ambient Temperature up to 70 °C (158 °F) without Cooling

Typical Applications

- Plastics
- Rubber
- Paper
- Ceramics
- Food
- Fluids
- Painted Parts
- Asphalt
- Wood
- Glass
- Coated Metals

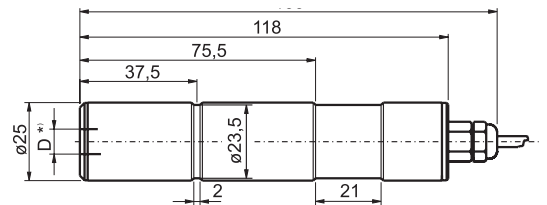
Optics



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% stabilized, ripple <50 mV
- Ambient Temp.:** 0...70 °C (32...158 °F)
- Storage Temp.:** -20...70 °C (-4...158 °F)
- Housing:** Stainless steel
- Protection:** IP65 (DIN 40050)
- Weight:** 215 g (0.48 lb.)
- Connection Cable:** 2 m (6.6 feet) length, fixed
- CE Label:** According to EU directives about electromagnetic immunity

Dimensions (mm)



Order Details (Example: TIR-SN 410G)

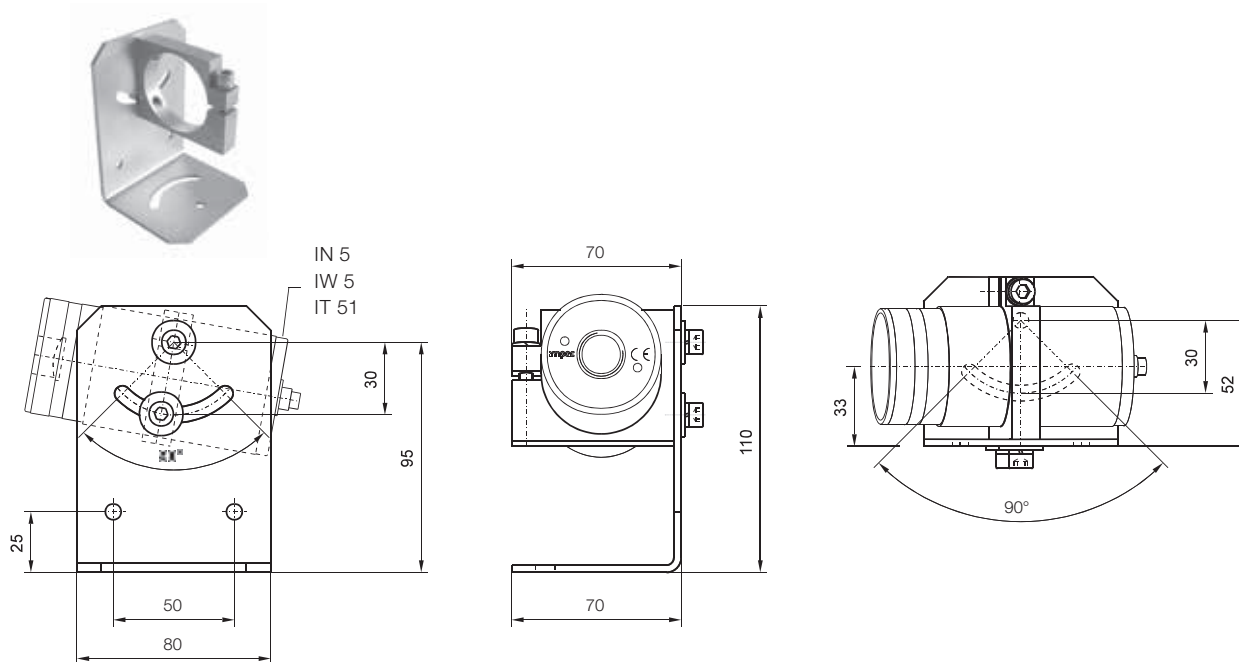
Model	Measuring Range	Optics	Infrared Detector	Applications
TIR-SN410..	0...100 °C (32...212 °F)	..G = Optic 300 mm (1:15) (Standard)	Thermopile Spectral Range: 8-14 μm	Plastics, Rubber, Paper, Ceramics, Food, Liquids, Painted Parts, Asphalt, Wood, Glass, Coated Metals, No Bright Metal
TIR-SN420..	0...200 °C (32...392 °F)			
TIR-SN430..	-20...300 °C (-4...572 °F)			
TIR-SN450..	0...500 °C (32...932 °F)			

Accessories for Stationary Infrared Measuring Instruments (TIR-SN)

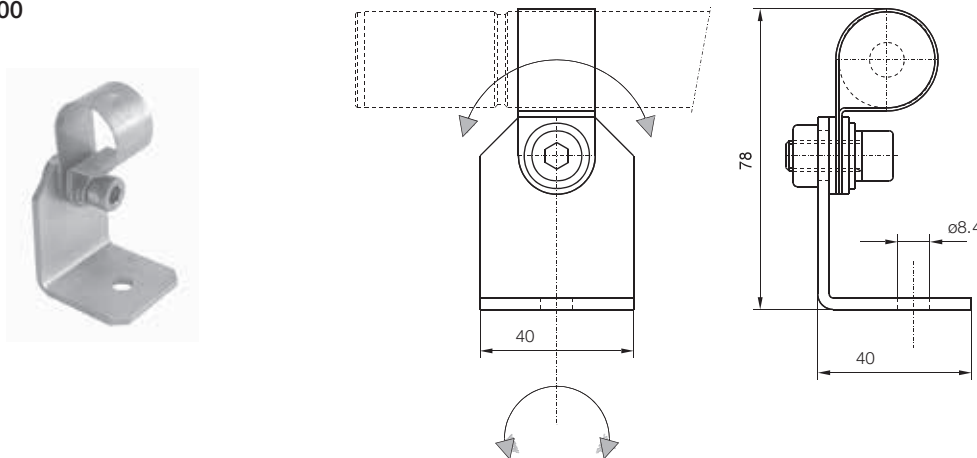
Model	Description
TIR-ZS100	Adjustable Mounting for Rough Environments. Material: Stainless Steel
TIR-ZS200	Installation and Alignment Support
TIR-ZS300	Installation Tube
TIR-ZS400	Stainless Steel Vent Nozzle to Prevent Dust Depositing on Optics
TIR-ZS500	Bracket for Flange System
TIR-ZS600	Tube Support 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 (2912 °F)
TIR-ZS900	Cooling Housing with Integrated Vent Nozzle for Cooling the Infrared Thermometer and Preventing Dust Deposits on Optics. For Connection to Cooling Water Circuit and Compressed Air. Material: Stainless Steel

Dimensions Accessories (mm)

TIR-ZS100



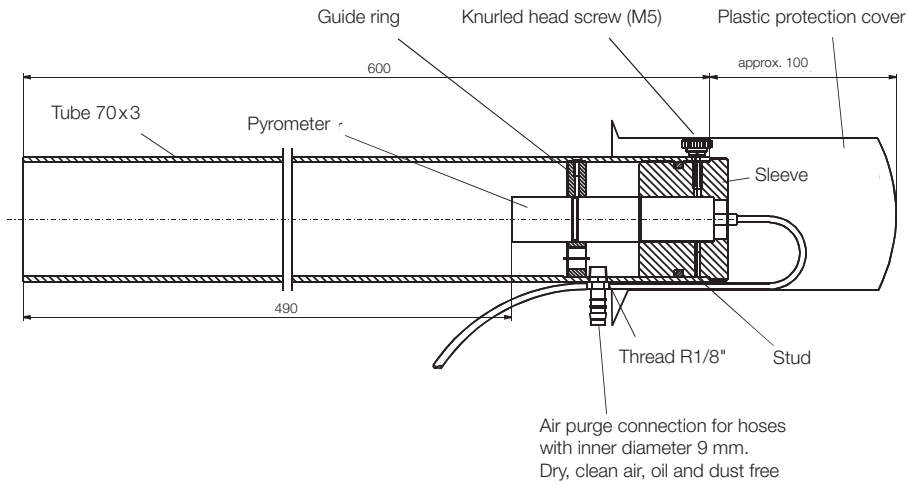
TIR-ZS200



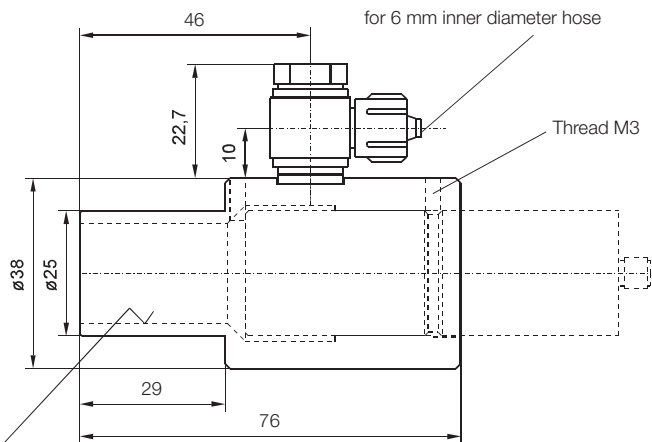
No responsibility taken for errors;
subject to change without prior notice.

Dimensions Accessories (mm)

TIR-ZS300



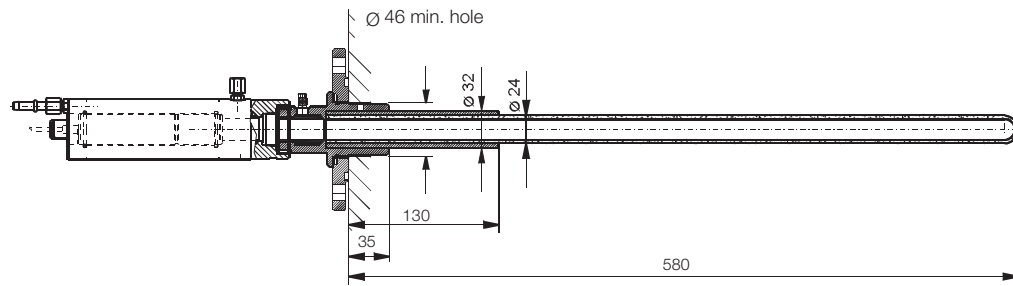
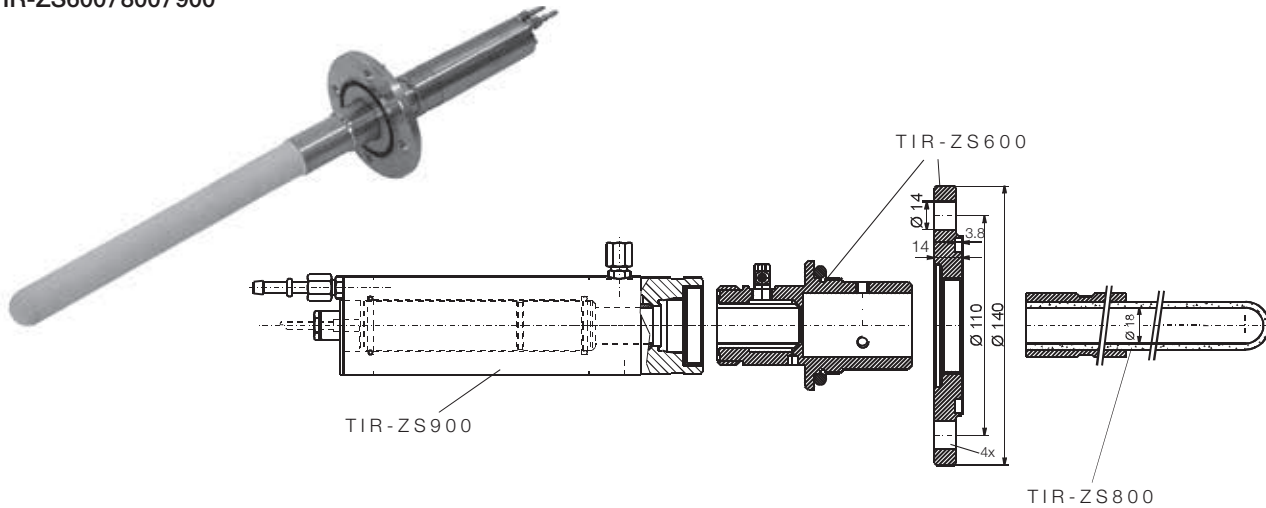
TIR-ZS400



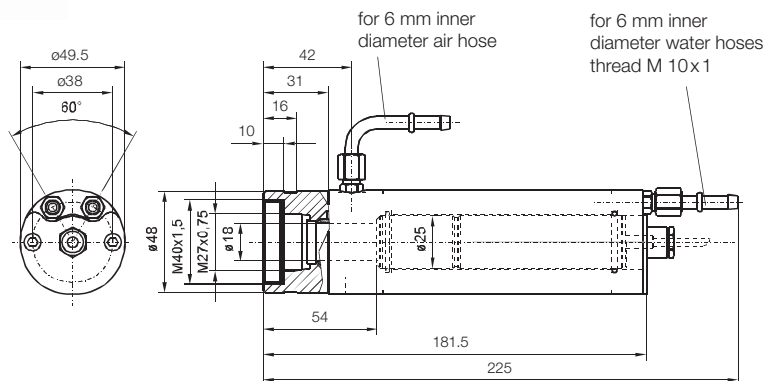
Thread to decrease the reflection

Dimensions Accessories (mm)

TIR-ZS600/800/900



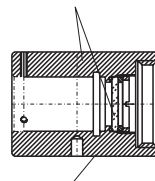
TIR-ZS900



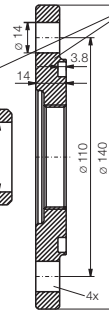
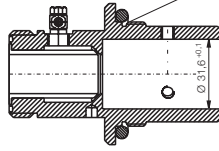
TIR-ZS500/600/700/800



TIR-ZS700
with quartz window



TIR-ZS500
Standard



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



Ceramic tube (TIR-ZS800)

