

## Infrared-measuring transducer



### HIGHLIGHTS:

- small infrared sensor heads with 22:1 optical resolution
- rugged and applicable without cooling up to 180 °C ambient
- adjustable emission factor
- freely scaleable analogue output
- illuminated liquid crystal display

**NON-CONTACT TEMPERATURE  
MEASURING FROM -50 ... +975 °C**

### IRCT20

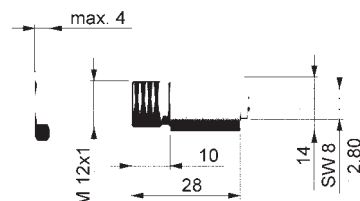
Art. no. 602832

Precision infrared transducer, -50 ... +975 °C, optic 22:1

<b>Application:</b>	
Glass, paper, plastic industries, automotive industry, metal industry, quality assurance / maintenance	
<b>Specifications:</b>	
<b>Measuring range:</b>	-50 ... +975 °C freely scaleable via programming keys
<b>Spectral sensitivity:</b>	8 ... 14 µm
<b>Optic resolution:</b>	22:1 (precision glass optics)
<b>System accuracy:</b>	±1% or ±1 °C (higher value applicable)
<b>Reproducibility:</b>	±0.5 % or ±0.5 °C (higher value applicable)
<b>Nominal temperature:</b>	23 ±5 °C
<b>Temperature coefficient:</b>	0.05 % or 0.05 °C/K (higher value applicable)
<b>Temperature resolution:</b>	0.1 °C
<b>Response time:</b>	150 ms (95 %)
<b>Emission-, transmission factor:</b>	adjustable from 0.100 ... 1.100
<b>Output signals:</b>	0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V, 0 ... 10 V, thermocouple type J or K
<b>Output impedance:</b>	
<b>mA</b>	max. 500 Ohm (at 8 ... 36 VDC)
<b>V</b>	min. 100 kOhm load resistance
<b>Thermo couple:</b>	20 Ohm
<b>Supply voltage:</b>	8 ... 36 VDC
<b>Power consumption:</b>	max. 100 mA
<b>Cable length:</b>	1 m (Standard), 3 m, 15 m
<b>IP rating:</b>	IP65 (NEMA-4)
<b>Ambient temperature:</b>	
<b>Measuring head:</b>	-20 ... +180 °C
<b>Electronic box:</b>	0 ... +65 °C
<b>Storage temperature:</b>	
<b>Measuring head:</b>	-40 ... +180 °C
<b>Electronic box:</b>	-40 ... +85 °C
<b>Relative humidity:</b>	10 ... 95 % RH, non condensing
<b>Vibration (meas. head):</b>	
<b>IEC 68-2-6:</b>	3G, 11-200 Hz, each axis
<b>Shock (meas. head):</b>	
<b>IEC 68-2-27:</b>	50G, 11 ms, each axis
<b>Weight (meas. head / elec. box):</b>	40 g / 420 g
<b>Dimensions electronic box:</b>	120 x 70 x 30 mm
<b>Scope of supply:</b>	electronics-box with LCD, stainless steel sensor head (M12) incl. screw nut, 1 m high temperature sensor head cable, manual

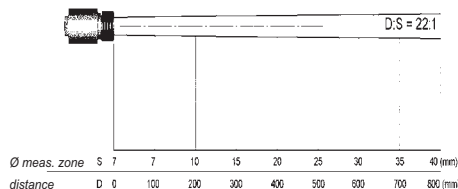
<b>Options:</b>	
<b>CB3</b>	3 m sensor head cable
<b>CB15</b>	15 m sensor head cable
<b>CF</b>	Auxiliary lens for measuring of smallest objects measuring zone dia 0.6 mm @10 mm, in long distance 1.5:1

<b>Accessories and spare parts:</b>	
<b>MW</b>	Art. no. 604567 mounting bracket, fixed
<b>MB</b>	Art. no. 604568 mounting bolts with M12x1 thread
<b>MG</b>	Art. no. 603711 mounting fork, adjustable in 2 axis with M12x1 mount
<b>FVS</b>	Art. no. 603138 standard blow clear header
<b>FVL</b>	Art. no. 603712 laminar blow clear header
<b>ISO-WPS-IRCT</b>	Art. no. 604967 calibration certificate 23 °C, 110 °C, 510 °C

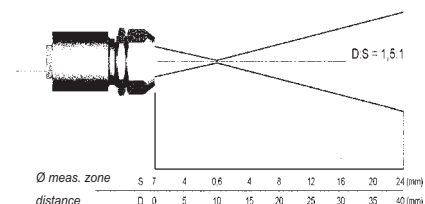


Further special design types (e.g. for metal processing, or with other optics) up on request

### Optic resolution (standard)



### Optic resolution (with option CF)



Handheld instrument  
Display / Controller  
Logger- / Bus systems  
Transmitter  
Temperature probe  
Simulators  
Alarm / Protection, Level