

# Robust infrared temperature sensors for hot objects



Precise and reliable measurement, with display and operating keys

- 4 to 20 mA and switching output, freely programmable
- Adjustable for different target materials
- Scratch-resistant precision lenses
- Easy handling via buttons and display
- Test function: activated on the sensor or remotely



## Non-contact temperature measurement

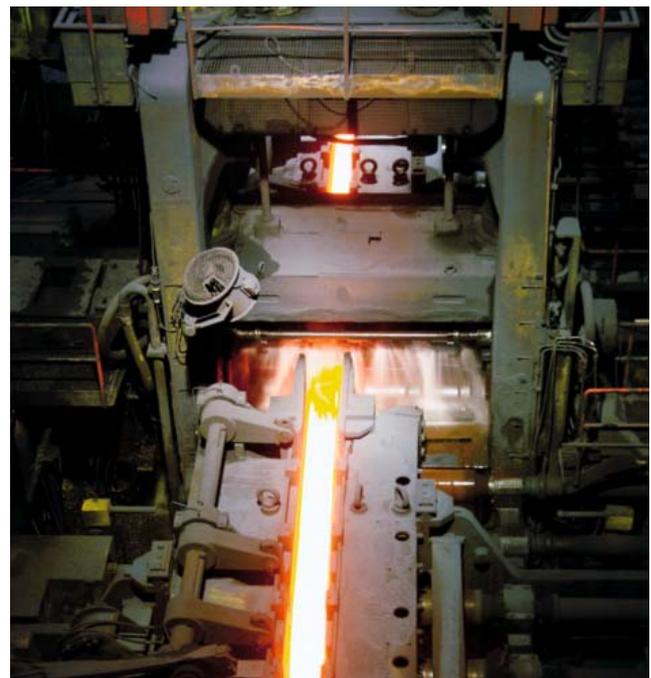
For the precise temperature measurement of particularly hot objects or objects which are difficult to access, e.g. in the steel, plastics or glass industries. The measured value is provided via the analogue output. In addition, a switching output is available.

## Robust and precise

All four variants feature a high-quality precision lens – the prerequisite for precise measurement. The lens withstands the rough environments for example in steelworks and reduces the influence of external light to a minimum.

## Easy setting and handling

To enable precise temperature measurement, the degree of emission can be quickly and easily set using the pushbuttons and display. The current temperature of the object to be measured is displayed during operation.



Temperatures must be precisely measured when pressing rails.

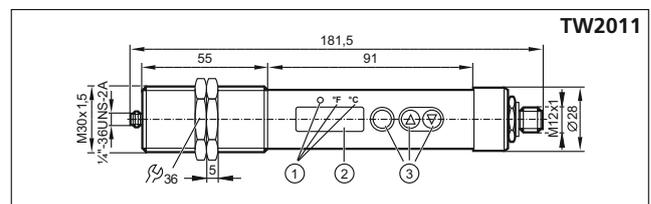
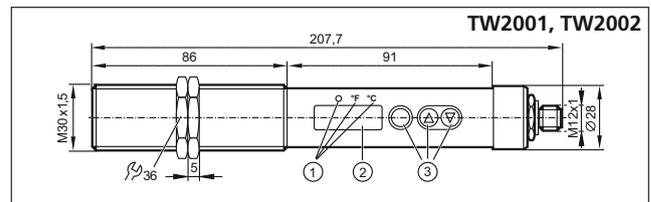
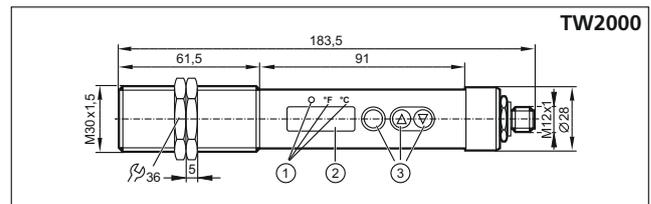
Design	Measuring range [°C]	Wave length range [µm]	Measurement uncertainty (for e = 1, Tu = 23 °C)	Lens material	Response time [ms]	Order no.
<b>M30, 1 x analogue, 1 x switching output, NO / NC programmable</b>						
IR temperature sensor	0...1000	8...14	1 % of the measured value, minimum 2 K	crystal lens with anti-reflex coating	< 100	<b>TW2000</b>
IR temperature sensor	250...1600	1.0...1.7	0.5 % of the measured value, minimum 4 K	tempered optical glass	< 2	<b>TW2001</b>
IR temperature sensor	500...2500	0.78...1.06	0.3 % of the measured value, minimum 4 K	tempered optical glass	< 2	<b>TW2002</b>
IR temperature sensor with fibre optic and measuring head	300...1600	1.0...1.7	0.5 % of the measured value, minimum 4 K	tempered optical glass	< 2	<b>TW2011</b>

**Accessories**

Type	Description	Order no.
	Air purge	<b>E35063</b>
	Cooling jacket	<b>E35064</b>
	Mounting bracket	<b>E35065</b>
	Protective tube	<b>E35066</b>
	Heat insulation	<b>E35067</b>

Common technical data		
Operating voltage	[V DC]	18...32
Current consumption	[mA]	≤ 50
Ambient temperature	[°C]	0...65
Protection		IP 65
Reverse polarity protection		•
Short-circuit protection		•

**Dimensions**



- 1) LEDs (display unit / switching status)
- 2) 7-segment LED display (4 digits)
- 3) Programming buttons

**Connection technology**

Type	Description	Order no.
	M12 socket, shielded, 2 m black, PUR cable	<b>EVC547</b>
	M12 socket, shielded, 5 m black, PUR cable	<b>EVC548</b>
	M12 socket, shielded, 2 m black, PUR cable	<b>EVC544</b>
	M12 socket, shielded, 5 m black, PUR cable	<b>EVC545</b>

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