Infrared Radiation Pyrometer

KT11

Non Contact Temperature Measurement

Small Spot Size
Fast Response, Measures
Sub-Zero Temperatures

Chopped Radiation Method
for Reliable and
Drift-free Operation

Adaptable to a Variety of
Applications

Accurate Thermal
Process Monitoring

The KT11 provides non-contact temperature measurements in the range from -30°C (-20°F) to +500°C (930°F) by intercepting Infrared (thermal) radiation emitted by all surfaces.

The unique Heitronics chopped radiation in the KT11 sensor virtually eliminates any thermal drift and provides unequalled dynamic compensation of thermal shock. The resulting stability, combined with an unsurpassed noise suppression, is obviously manifested in the excellent temperature resolution, the capability of measuring small target areas, and the fast response in the entire measuring range.

The KT11 sensor is housed in a metal threaded tube (metric thread M 30 x 1.5) which provides full protection against harsh and hostile industrial environments. Convenient and easy mounting is facilitated by a sturdy metal bracket and a heavy duty cable connector.

The KT11 analog output interfaces with all standard industrial controllers and temperature indicators. The optional MS11 monitoring system converts the KT11 to a fully portable, battery operated, hand-held temperature measuring instrument.

Accessories:
Intelligent Temperature Meter MS35 with integrated power supply

Accessories:
Laser pointer for exact alignment of KT11 sensor

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Primary Applications

Due to its professional and advanced design the KT11 is the sensor of choice for many applications in the production and processing of plastic, paper, wood, food, glass, ceramic, rubber, textile materials, in monitoring and testing of insulations, in evaluation of drying processes, and in the thermal analysis of selected target areas.

Accessories

- Portable monitoring system MS11
- Laser pointer for optical alignment
- 90° deflection attachment
- Air purge fitting
- Emissivity converter
- Intelligent temperature meter MS30 or MS35
- Adjustment rod for alignment of close focus lenses
- Optical viewfinders
- Extension tube
- Air/water coolable housing

Optical Configuration

	Spot size diameter	FOV*
KT11.Si	18 mm @ window	4.5 : 1
KT11.K6	40 mm @ 1,000 mm	25 : 1
KT11.N6	4.5 mm @ 160 mm	35 : 1
KT11.L6	3.0 mm @ 110 mm	37 : 1
KT11.M6	1.0 mm @ 25 mm	25 : 1

*Distance-to-spot-ratio beyond given distance

General Specifications

Spectral Response	7 to 16 µm
Emissivity adjustment	0.5 to 1.0 by potentiometer
Response time (t_{90})	50 msec, 320 msec, 720 msec, 1 sec (switchable)
Analog output	0 to 20 mA, 250 Ω max. impedance
Temperature drift	0.03%/K
Power requirements	10 to 15 VDC, 70 mA
Permissible operating temperature	0 to 70 °C (32 to 158 °F)
Permissible storage temperature	-20 to 85 °C (-4 to 185 °F)
Dimensions	33 mm (1.3'') max. diameter, 150 mm (5.9'') long
Weight	approx. 280 g (10 oz.)
Housing protection	IP 65 (DIN 4005), NEMA 4 equivalent

**) Please ask for additional literature "Technical Data" KT11, MS30, MS35, MS11*

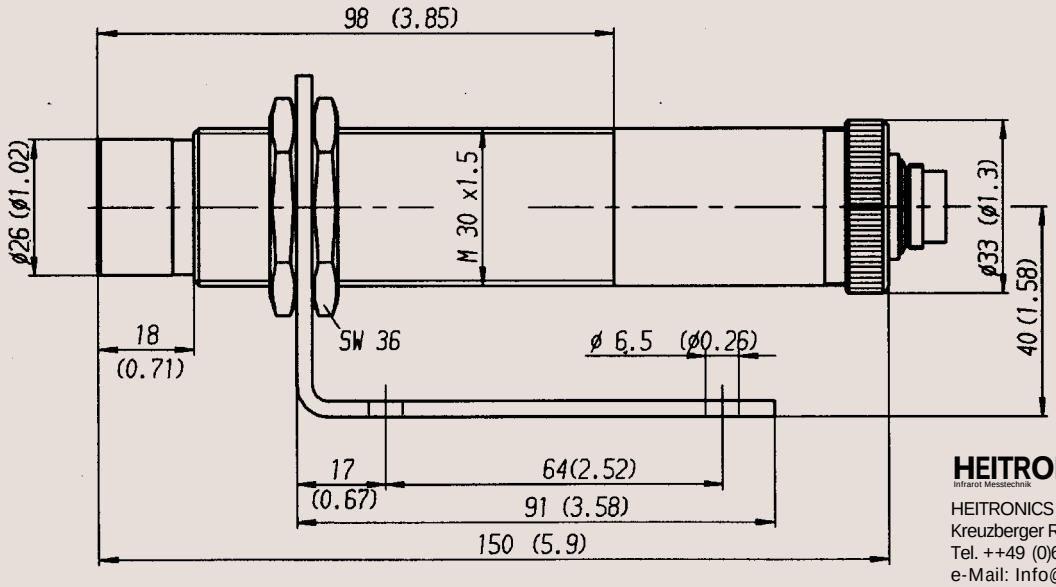
Calibration accuracy, Temperature Ranges and Temperature Spans**

Temperature Range		Target Temperature	Full Range * (linearized)	Temperature Spans (non linearized) 20 °C	50 °C	100 °C
Range 1	-30 to 100 °C	@ -30 °C	±1.0 °C	±1.5 °C	±2.5 °C	±5 °C
	(-20 to 210 °F)	@ +25 °C	±1.0 °C	±1.5 °C	±2.0 °C	±5 °C
Range 2	0 to 200 °C	@ +100 °C	±1.0 °C	±1.5 °C	±2.0 °C	±4 °C
	(30 to 390 °F)	@ +200 °C	±1.5 °C	±2.0 °C	±2.0 °C	±4 °C
Range 3	0 to 500 °C	@ +500 °C	±2.5 °C	±2.5 °C	±2.5 °C	±3 °C
	(30 to 930 °F)					

**) Note: Full range accuracy requires additional linearization of sensor signal.*

***)The KT11 has three switchable temperature ranges. The calibration accuracy depends on the target temperature and the temperature spans within the ranges (see above)*

Housing dimensions in mm (inches)



HEITRONICS
Infrarot Messtechnik

HEITRONICS Infrarot Messtechnik GmbH
Kreuzberger Ring 40 • D-65205 Wiesbaden
Tel. ++49 (0)611 973 93 0 • Fax ++49 (0)611 973 93 26
e-Mail: Info@HEITRONICS.com
http://www.HEITRONICS.com

04.98 / Wolf / Wiehr-Design