

LT13 EB

Infrared Radiation Thermometer LT13 EB

- Measurement at very low emissivities (> 0.02)
- Highly reflecting gold mirror
- Defined spot size



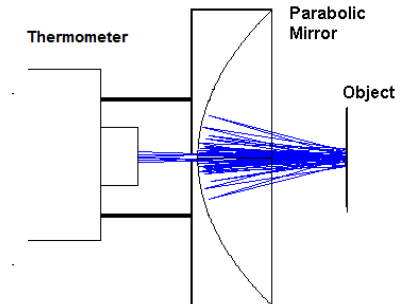
GENERAL SPECIFICATION

Temperature range:	■ 0 to 2000 °C, depends on model, see table on next page
Temperature resolution (NETD):	■ Depends on measured temperature and response time, typical value 0.2 °C (at 300 ms, 100 °C, ε= 1)
Accuracy (uncertainty):	■ ± 0.8 °C plus 0.8% of the difference between target and sensor head temperature
Long term stability:	■ Better than 0.01% of the absolute measured value per month
Field of view diameter:	■ 5 mm at 5 mm (fixed distance)
Spectral response:	■ 8 to 14 μm / 2 to 2,7 μm
Programmable functions via serial interface:	■ Emissivity, environmental temperature, analog output, function of analog output, response time, temperature unit, valley/peak picker with decay function, alarm values and output (B)
Emissivity:	■ 0.100 to 1.000 in 0.001-steps
Response time:	■ From 30 ms to 10 s (0.03, 0.1, 0.3, 1, 3, 10 s)
Temperature unit:	■ °C, K or °F
Analog output (Hardware):	■ Linear 0 - 20 mA, or 4 - 20 mA, scalable temperature span ≥ 50 °C
Analog output (Functions):	■ Actual value, max-value or min-value
Analog output (Resolution):	■ 12 bit
Valley/peak picker programmable:	■ Reset: internal □ Reset: external input
Serial interface:	■ RS232-interface, bi-directional, 9.6 to 57.6 kbps, for programming and data transfer
Alarm output:	□ Programmable (open collector)
Operating voltage:	■ 10.5 VDC to 32 VDC / 10.8 VAC to 26.4 VAC
Power consumption:	■ Approx. 2.5 W
Permissible ambient temperature:	■ -25 to 60 °C
Storage temperature:	■ -40 to 85 °C
Protective class:	■ IP68 (IEC), (NEMA 4 equivalent)
Housing:	■ Stainless steel / brass gilds
PC-based Software:	■ EasyConfig: Software for parameter setting □ EasyMeas: Software for parameter setting, data recording, data storage and data evaluation

■ Standard function	(B) with option "Alarm output"
□ Option	

**PRINCIPLE OF OPERATION
FOR LT13-SERIES**

A gold plated parabolic mirror focuses the measured spot on to itself. Thus IR radiation is captured between object and mirror. Due to multiple reflections the radiance in this area is up to 15 times higher than without mirror.



APPLICATIONS

Applications / Material	Model / Type	Temperature Range / °C
Paper industry Glossy finish rolls	LT13.10	0 ... 500
Metal industry Galvanized steel, Aluminium foil, Continuous Aluminium casting, ...	LT13.10	0 ... 500
	LT13.2	500 ... 2000
Printing industry Holographic stencils	LT13.10	0 ... 500
Quality control Compensation of temperature expansion in quality control	LT13.10	0 ... 500

DIMENSIONS (in mm)

