

# LT15EB

## Infrared Radiation Thermometer LT15EB

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



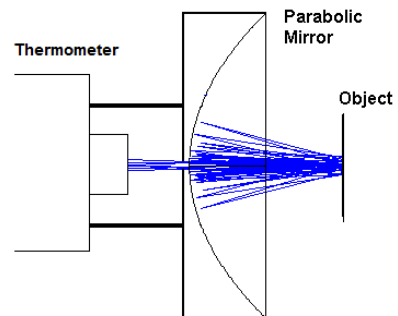
### GENERAL SPECIFICATION

<b>Temperature range:</b>	■ -25 to 2000 °C, depends on model, see table on next page
<b>Temperature resolution (NETD):</b>	■ Depends on measured temperature and response time, typical value 0.2 °C (at 300 ms, 100 °C, ε= 1)
<b>Accuracy (uncertainty):</b>	■ ± 0.5 °C plus 0.7% of the difference between target and sensor head temperature
<b>Long term stability:</b>	■ Better than 0.01% of the absolute measured value per month
<b>Field of view diameter:</b>	■ 5 mm at 5 mm (fixed distance)
<b>Spectral response:</b>	■ 8 to 14 μm, 2 to 2.7 μm
<b>Programmable functions via serial interface:</b>	■ Emissivity, environmental temperature, analog output, function of analog output, response time, temperature unit, valley/peak picker with decay function, alarm values and output (B)
<b>Emissivity:</b>	■ 0.100 to 1.000 in 0.001-steps
<b>Response time:</b>	■ From 5 ms to 600 s (0.005, 0.01, 0.03, 0.1, 0.3, 1, 3, 10, 30, 60, 120, 240, 360, 480, 600s)
<b>Temperature unit:</b>	■ °C, K or °F
<b>Analog output (Hardware):</b>	■ Linear 0 - 10 V, 0 - 1V, 0 - 20 mA, or 4 - 20 mA, scalable temperature span ≥ 50 °C
<b>Analog output (Functions):</b>	■ Actual value, max-value or min-value
<b>Analog output (Resolution):</b>	■ 12 bit
<b>Valley/peak picker programmable:</b>	■ Reset: internal □ Reset: external input
<b>Serial interface:</b>	■ <b>RS232-</b> or <b>RS485</b> addressable interface, bi-directional, 9.6 to 115 kbps, for programming and data transfer
<b>Alarm output:</b>	□ Programmable (open collector)
<b>Power requirements:</b>	■ 22 - 30 VDC or 24 VAC ±10 %, 48 - 400 Hz ≤ 150 mA @ 24 VDC
<b>Permissible ambient temperature:</b>	■ -20 to 60 °C
<b>Storage temperature:</b>	■ -20 to 70 °C
<b>Protective class:</b>	■ IP67 (IEC), (NEMA 6 equivalent)
<b>Housing:</b>	■ Stainless steel / brass gilds
<b>PC-based Software:</b>	■ 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 LT15-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
<b>Paper industry</b> Glossy finish rolls	LT15.10	-25 ... 900
<b>Metal industry</b> Galvanized steel, Aluminium foil, Continuous Aluminium casting, ...	LT15.10	-25 ... 900
	LT15.2	350 ... 2200
<b>Printing industry</b> Holographic stencils	LT15.10	-25 ... 900
<b>Quality control</b> Compensation of temperature expansion in quality control	LT15.10	-25 ... 900

**DIMENSIONS (in mm)**

