

RIEGL LD90-3100HS-HT high-temperature distance meter

The LD90-3100HS-HT is a laser distance meter optimized for very hot and glowing targets in steel plants, rolling mills, foundries etc. Transmitter and receiver optics are equipped with narrow-band optical filters to avoid disturbances of the measurement caused by the radiation of light and heat from the hot target surface. If necessary the front side can be equipped with an additional protection tube, which can be flushed with nitrogen or compressed air to keep the lenses clean.

The **technical data** can, to a considerable extent, be influenced by the environmental conditions, especially by the following parameters:

- Surface temperature and reflection characteristics of the target
- Distance of the target
- Angle of the measurement beam with respect to the surface of the target
- Optical attenuation of the gases between target and instrument

LD90-3100HS-HT

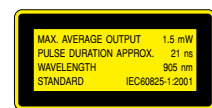
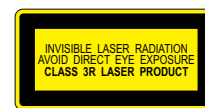
**High-Speed,
High Temperature
distance meter**

Measurement range depending on the surface temperature and the reflection coefficient of the target	
liquid steel, temperature up to 1450 °C	3 m to 7 m
glowing slabs, temperature up to 1200 °C	2 m to 10 m
other targets, temperature up to 800 °C	2 m to 100 m

Accuracy, typically ¹⁾	±15 mm				
Measuring time (s) ²⁾	0.05	0.1	0.2	0.5	1
Statistical deviation (mm) ³⁾	±20	±15	±10	±7	±5
Resolution (mm) ³⁾⁴⁾	10	5	5	2	2
Diameter of the infrared measuring beam	approx. 30 mm at 10 m, approx. 150 mm at 50 m				

Eye safety class according to IEC60825-1:1993+A1:1997+A2:2001 laser class 3R

The following clause applies for instruments delivered into the United States:
Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001.

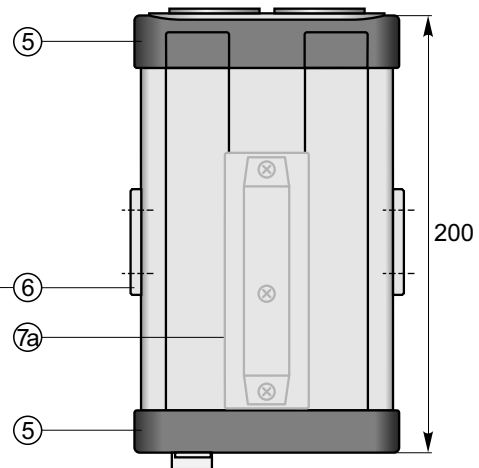
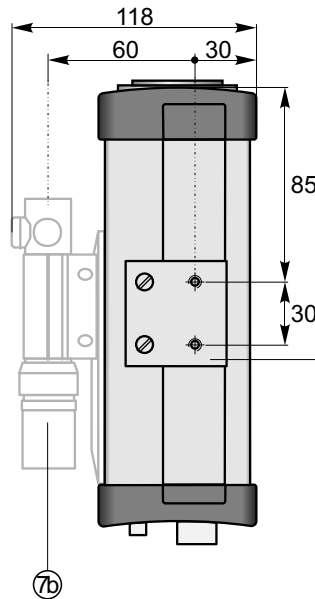
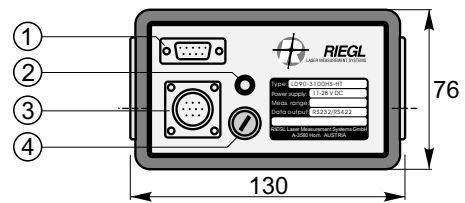


Temperature range (case temperature)	
Operation	-10 °C to +50 °C
Storage	-20 °C to +60 °C
Dimensions (L x W x H)	200 x 130 x 76 mm
Weight	approx. 1.5 kg
Protection class	IP64

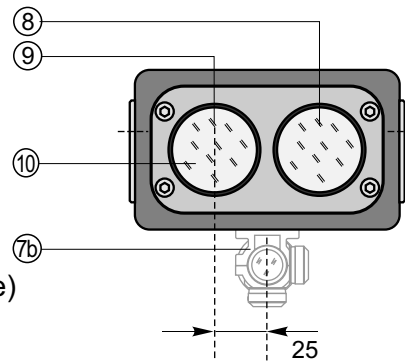
- 1) standard deviation
- 2) selectable via RS232/RS422
- 3) depending on measuring time
- 4) chosen automatically by the internal microprocessor

Dimensional drawings of RIEGL LD90-3100HS-HT

- (1) 9pole socket for RS232/RS422 data interface
- (2) LED "POWER ON"
- (3) 10pole socket for power supply, optional analog outputs, and switching output
- (4) Fuse holder



- (5) Rubber-armoured front and rear panel
- (6) Mounting plates with 2xM6 threads on both sides of the instrument
- (7a) Mounting for aiming device (optional)
- (7b) Telescope (optional)
- (8) Protecting filter for receiver lens (detachable)
- (9) Protecting filter for transmitter lens (detachable)
- (10) Transmitter



All dimensions in mm.

Other parameters as given in our general data sheet LD90-3 series.

Information contained herein is believed to be accurate and reliable. However, no responsibility is assumed by RIEGL for its use. Technical data are subject to change without notice. Data sheet LD90-3100HS-HT, 09/07/2007



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