


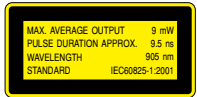


# RIEGL LD90-3EHS extremely high-speed distance meter

Laser Distance Meter for use with or without reflectors which, because of its long-range, and its "First & Last Pulse" <sup>1)</sup> facility, is especially well suited for scanner applications.

<b>LD90-3100EHS-FLP</b> <i>Extremely High-Speed,</i> highly accurate distance meter for scanner applications	Measuring range depending on the reflection coefficient $\rho$ of the target	
	for natural targets, $\rho \geq 80\%$	2m up to 200 m <sup>2)</sup>
	for natural targets, $\rho \geq 10\%$	5 m up to 60 m <sup>2)</sup>
	for retroreflecting targets <sup>3)</sup>	10 m up to 350 m @ 25mm resolution 10 m up to 700 m @ 50mm resolution
	Minimum distance between two targets, typically	5 m
	Measurement accuracy <sup>4)</sup>	typically $\pm 25$ mm
	Measurement resolution (selectable)	25 mm or 50 mm
	Measurement rate <sup>5)</sup>	up to 12 000 Hz
	Laser wavelength	typ. 0.9 $\mu\text{m}$ (near infrared)
	Beam divergence <sup>6)</sup>	3 mrad x 0.5 mrad
	Eye safety class according to IEC60825-1:1993+A1:1997+A2:2001 <sup>7)</sup>	
	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.	 Viewing the laser output with certain optical instruments designed for use at a distance (for example, telescopes and binoculars) may pose an eye hazard.
	Interface	Parallel interface, ECP standard (extended capabilities port)

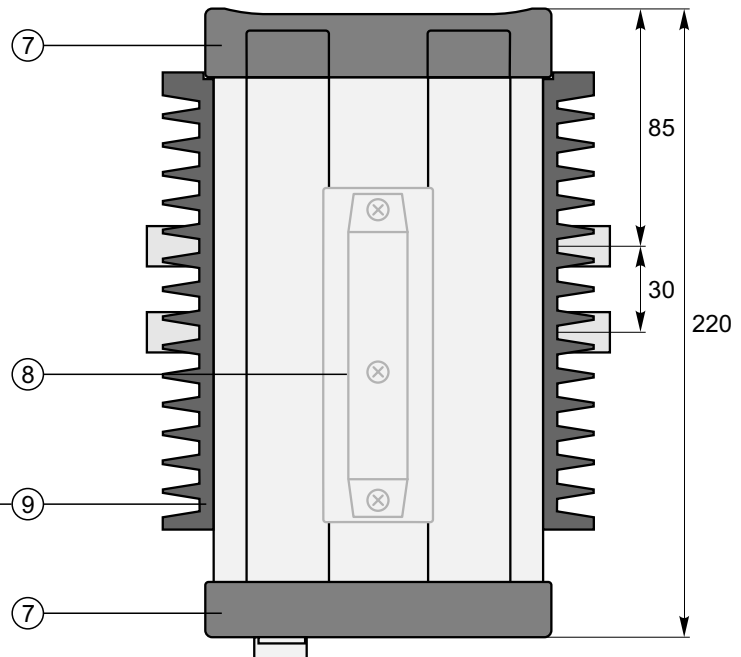
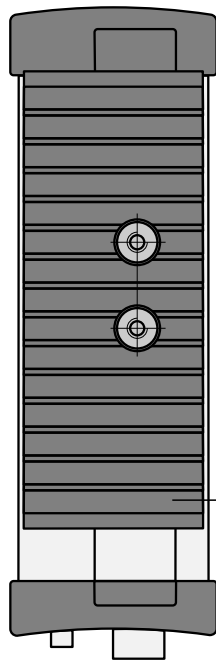
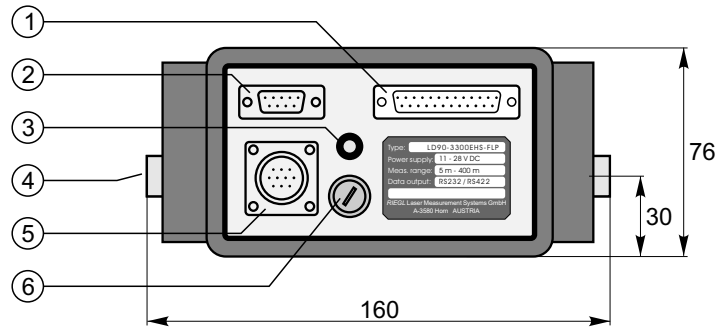
<b>LD90-3300EHS-FLP</b> <i>Extremely High-Speed</i> distance meter for long-range scanner applications	Measuring range depending on the reflection coefficient $\rho$ of the target	
	for natural targets, $\rho \geq 80\%$	3 m up to 400 m @ 50mm resolution <sup>2)</sup> 3 m up to 350 m @ 25mm resolution <sup>2)</sup>
	for natural targets, $\rho \geq 10\%$	5 m up to 120 m <sup>2)</sup>
	for retroreflecting targets <sup>3)</sup>	10 m up to 700 m @ 50mm resolution 10 m up to 350 m @ 25mm resolution
	Minimum distance between two targets, typically	5 m
	Measurement accuracy <sup>4)</sup>	typically $\pm 50$ mm
	Measurement resolution (selectable)	25 mm or 50 mm
	Measurement rate <sup>5)</sup>	up to 12 000 Hz
	Laser wavelength	typ. 0.9 $\mu\text{m}$ (near infrared)
	Beam divergence <sup>6)</sup>	approx. 3 mrad
	Eye safety class according to IEC60825-1:1993+A1:1997+A2:2001 <sup>7)</sup>	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.	  
	Interface	Parallel interface, ECP standard (extended capabilities port)

- 1) First, Last, or First&Last target alternatively selectable
- 2) typical values for average conditions. In bright sunlight, the operational range is considerably shorter than under an overcast sky. At dawn or at night the range is even higher.
- 3) reflecting foil 3M DG4090 or equivalent, minimum dimensions 0.45 x 0.45 m<sup>2</sup>
- 4) standard deviation, plus distance depending error  $\pm 20$  ppm
- 5) adjustable in steps by software command; up to max. 12019 Hz ( $\pm 2$  Hz)
- 6) 1 mrad corresponds to 10 cm beamwidth per 100 m of distance
- 7) For the unscanned laser beam only. For a scanned beam, laser class 1 (eyesafe) is in most cases achievable.

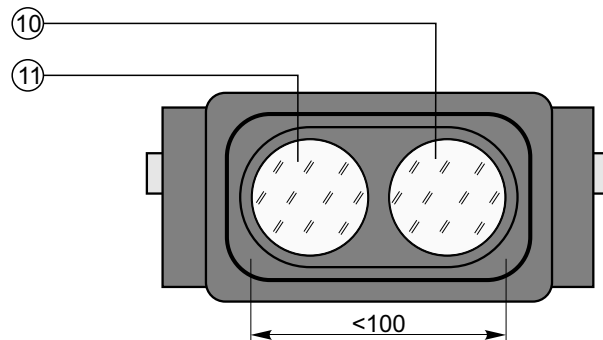
General technical data as given in our general data sheet LD90-3 series.

# RIEGL LD90-3EHS dimensional drawings

- (1) ECP interface
- (2) 9pole socket for RS232 / RS422 data interface
- (3) LED "POWER ON"
- (4) 4xM6 threads on both sides for mounting the instrument
- (5) 10 pole socket for power supply
- (6) Fuse holder



- (7) Rubber-armoured front and rear panel
- (8) Mounting for aiming device (optional)
- (9) Cooling block
- (10) Receiver lens
- (11) Transmitter lens



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 RIEGL LD90-3EHS-FLP, 11/07/2006



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