



RIEGL LD90-3800-FLP high-speed, long-range sensor

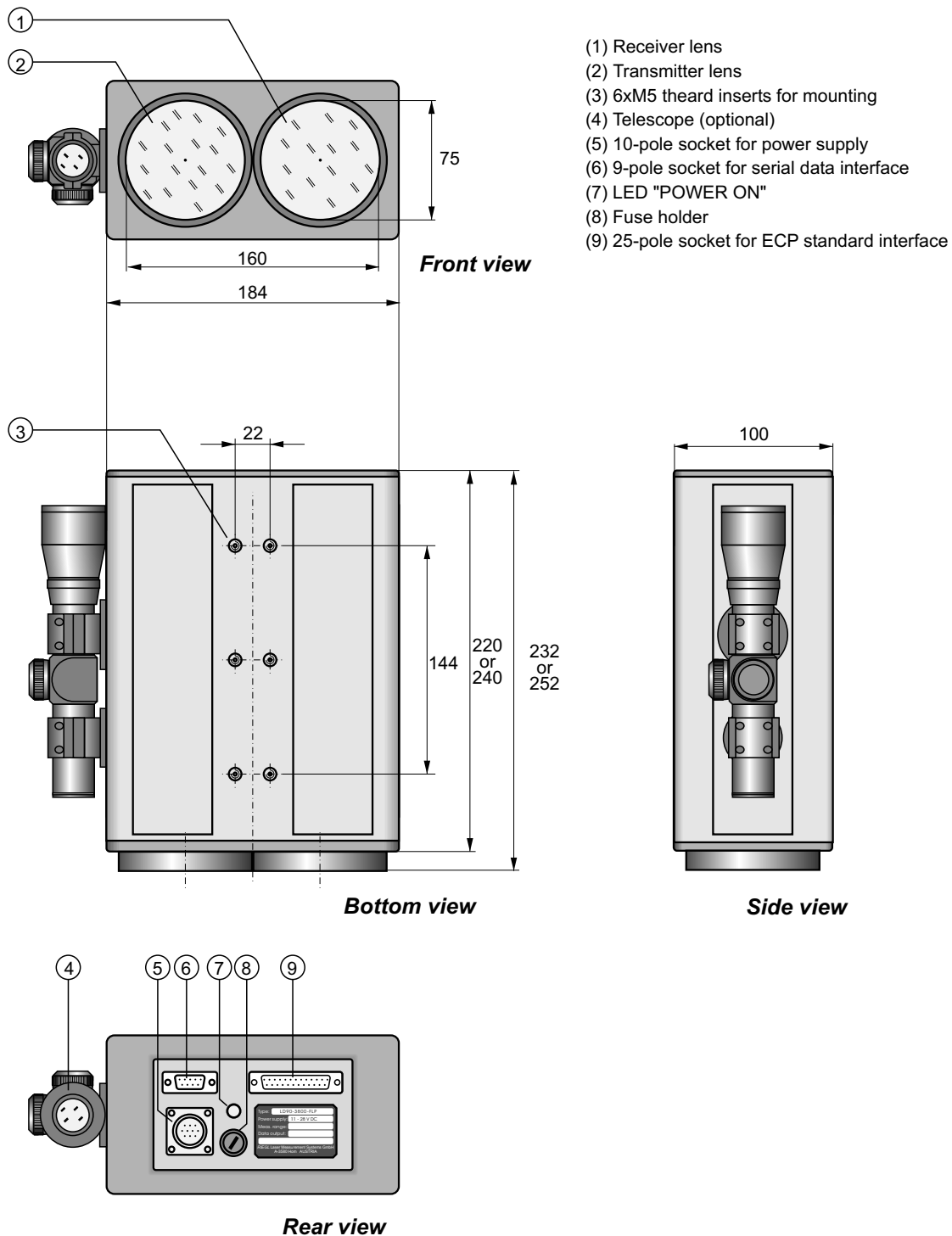
Laser Distance Meter for use with or without reflectors which, because of its high repetition rate, its long-range, and its "First & Last Pulse"¹⁾ facility, is especially well suited for airborne altimetry and scanner applications, and for use as an invader detector.

	LD90-3800VHS-FLP	LD90-3800EHS-FLP
Measurement rate	2000 Hz	12 000 Hz
Data interface	RS232 or RS422 115.2 kBd	ECP standard, parallel interface
Eye safety class according to IEC60825-1:1993+A1:1997+A2:2001	 ²⁾	 ²⁾
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.	Viewing the laser output with certain optical instruments designed for use at a distance (for example telescopes and binoculars) may pose an eye hazard.
Physical data		
Dimensions	232 x 184 x 100 mm	252 x 184 x 100 mm
Weight	approx. 4.4 kg	approx. 4.5 kg
Protection class	IP64	IP64

LD90-3800-FLP		
Measurement range ³⁾		
for natural targets, $p \geq 80 \%$		up to 750 m
for natural targets, $p \geq 10 \%$		up to 250 m
for retroreflecting targets ⁴⁾		1000 m
Minimum distance ⁵⁾		10 m
Measurement accuracy ⁶⁾		typically ± 50 mm
Measurement resolution		50 mm
Laser wavelength		typ. 0.9 μ m (near infrared)
Beam divergence ⁷⁾		1.6 mrad x 1.8 mrad
Power supply		
Standard		11-28 Volts DC, approx. 10 Watt built-in protecting circuitry for over-voltage and reverse polarity
Option 220 V AC		external power supply module VNG95
Temperature range		
Operation		-10 °C to +50 °C
Storage		-20 °C to +60 °C

- 1) First, Last, or First&Last target alternatively selectable
- 2) For the unscanned laser beam only. For a scanned beam, laser class 1 (eyesafe) is in most cases achievable.
- 3) 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.
- 4) reflecting foil 3M DG4090 or equivalent, minimum dimensions 0.45 x 0.45 m²
- 5) short-range sensitivity reduced to avoid nearby echoes
- 6) standard deviation, plus distance depending error ≤ 20 ppm
- 7) 1 mrad corresponds to 10 cm beamwidth per 100 m of distance

Dimensional drawings of RIEGL LD90-3800-FLP



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 LD90-3800-FLP, 11/07/2006



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