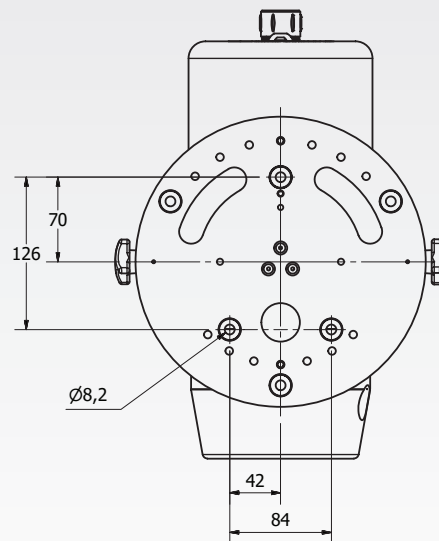
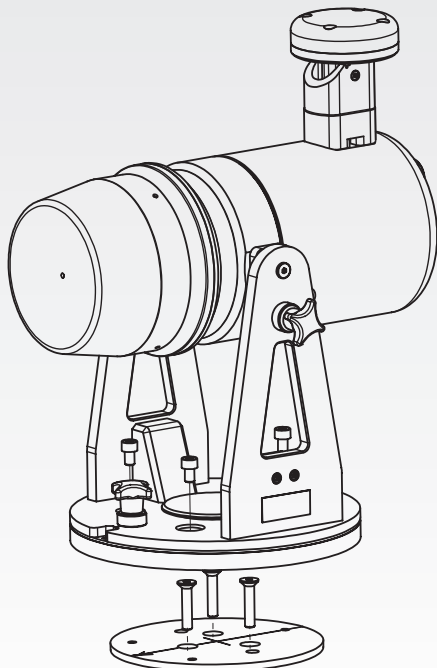
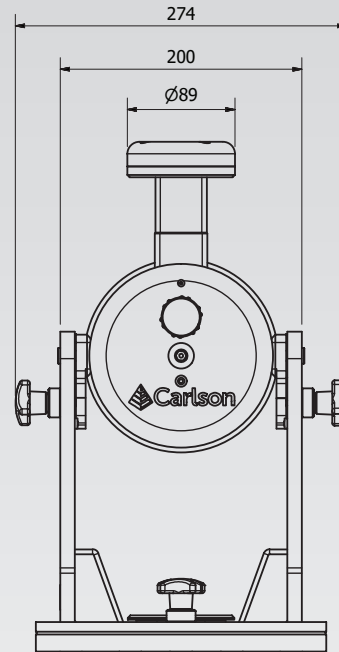
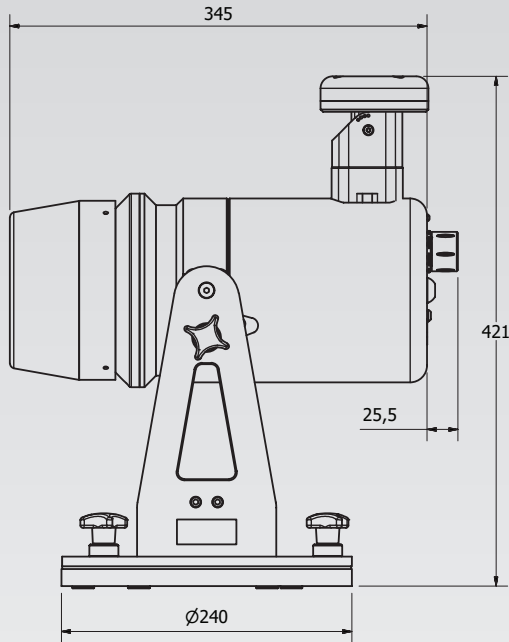


Merlin

Vessel-Based Laser Scanner

Dimensions



Dimensions given in mm

**CLASS 1
LASER PRODUCT**

Merlin Vessel-Based Laser Scanner	
Laser module	
Type	InGaAs laser diode
Wavelength (typ)	905 nm
Accuracy*	± 1cm
Maximum energy per pulse	0.461 µJ
Beam divergence	2.25 × 1.5 mrad
Range resolution	1 cm
Maximum range to a passive target**	250 m
Minimum range	0.5 m
Lens aperture size and location	28 mm (location at front of module)
Scanner field of view	360°
Scanner angle resolution	Up to 0.01°
Scan rate	Up to 20 Hz
Beam footprint at 50 m	141 mm × 103 mm
Pulse measurement rate (points per second)	36000
Physical data	
Power	11 to 30 V dc 198 W
Weight (Merlin unit excluding mount)	12.5 kg
Dimensions (L × W × H)	370.5 mm × 274 mm × 423 mm
Environmental	
Water and dust resistant***	IP66 (marine grade)
Operating temperature	-10 °C to +50 °C
Storage temperature	-25 °C to +70 °C
Tests and approvals	
CE conformity	DoC available
Safety of laser products (Class 1)	BS EN 60825-1: 2007 (21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser No. 50, dated 24 June 2007)
EMC	BS EN 60945: 2002 section 9-11
FCC compliance	CFR47 Part 15.19, 15.21, 15.105
Photobiological safety of lamps and lamp systems	BS EN 62471: 2008
Safety of machinery	BS EN ISO 12100: 2010
Safety of electrical equipment	BS EN 61010-1: 2010

* Max measuring accuracy recorded at 50 m against Kodak white card (90% reflectivity) to 1σ. Accuracy is defined as the degree of conformity of the measured sample mean range to its actual (true) value, measured with reference to a total station under Carlson test conditions.

** Max measuring ranges are recorded against Kodak white card (90% reflectivity).

*** Environmental protection is tested in accordance with EN 60529: 1992 + A1: 2002 and EN 60945: 2002.

For further information and the best possible application and performance support please contact Carlson at lasermeasurement@carlsonsw.com