

Features

- Homogenized laser beam
- Water-cooled diode laser bars inside
- Single wavelength
- Scalable output power
- Water cooling using de-ionized water
- Sealed housing

Optional Accessories

- Integrated NTC temperature sensor
- Integrated humidity sensor
- Cooling water manifold



Device Specification

Type of DL-Module: VH8.6

Optical Parameters ¹	Units	Values for CW Operation
Center Wavelength Range ³	nm	808
Center Wavelength Tolerance	nm	±5
Output Power ²	W	950
Number of Bars ³	#	12
Spectral Width (FWHM)	nm	<4
Slope Efficiency	W/A	>10
Wavelength Temp. Coefficient	nm/°C	~0.27
Beam Geometry after Homogenization	mm ²	12 x 12
Homogeneity	%	<10 ⁵

Electrical Parameters ¹	Units	Values for CW Operation
Power Conversion Efficiency	%	>50
Threshold Current (I _{TH})	A	<16
Operating Current (I _{OP})	A	<100
Operating Voltage (U _{OP}) [U _{OP} <1.8V per bar]	V	<22
Duty Cycle (D.C.)	%	<30

Thermal Parameters	Units	Values for CW Operation
Operating Temperature Range ^{3, 4}	°C	+ 20 to 30
Storage Temperature Range ⁴	°C	0 to 55
Transportation Temperature	°C	- 20 + 55
Coolant Flow Rate	l/h	180 - 200
Water Temperature	°C	+ 20 + 25
Purity		de-ionized water ⁶

Mechanical Parameters	Units	Values for CW Operation
Dimensions		Refer to overleaf dimensional drawing
Weight	kg	<1

¹Data at 25°C cold plate temperature, unless otherwise stated

²Reduced lifetime if used above nominal operating conditions

³Others available upon request

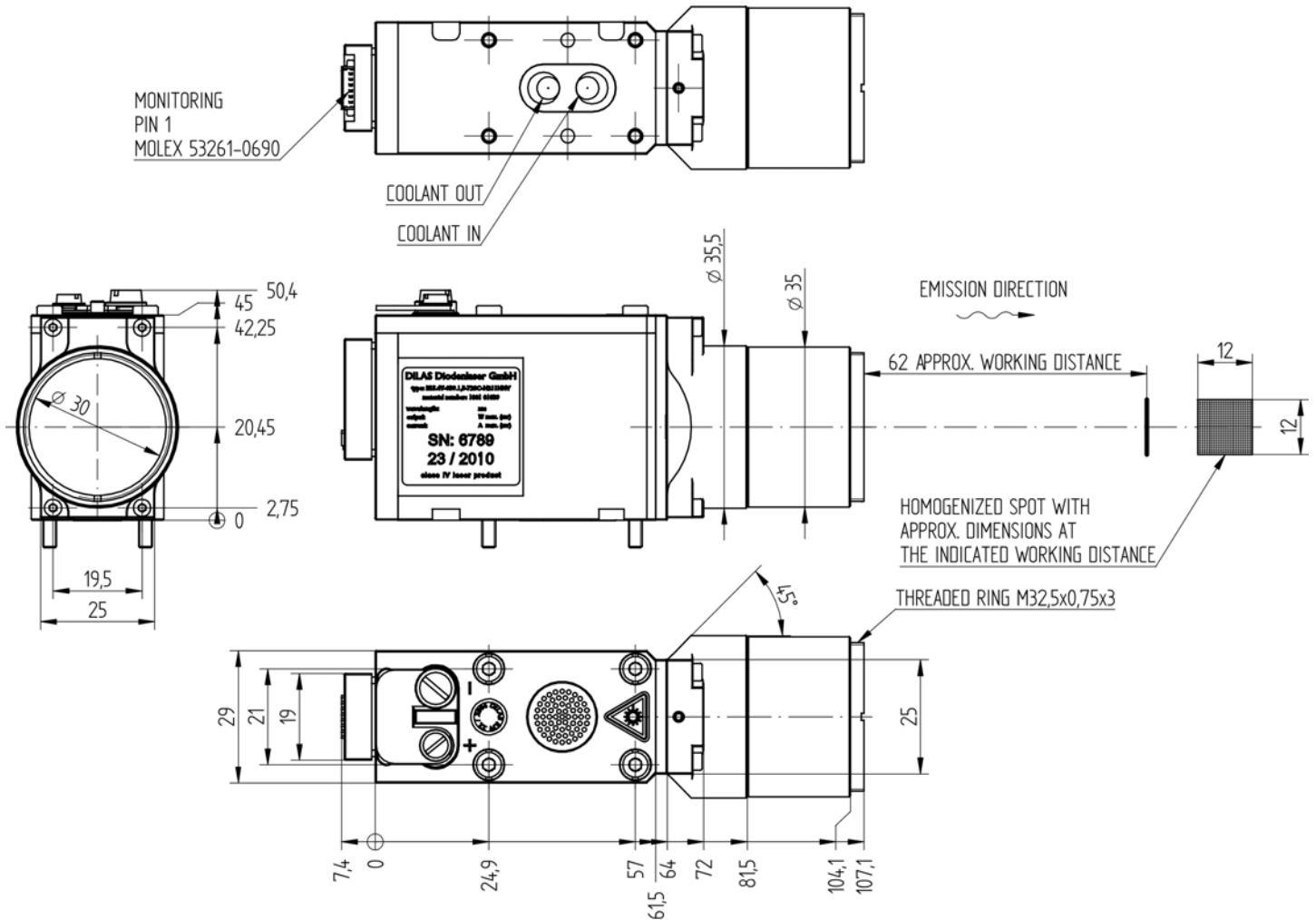
⁴A non-condensing environment is required for storage and operation below the ambient dew point

⁵Homogeneity is [(I_{max}-I_{min}) / (I_{max} + I_{min})]

⁶Please refer to DILAS water specification for cooling requirements.

Vertical Homogenizer, Water-Cooled Diode Laser Stack

Package Dimension



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