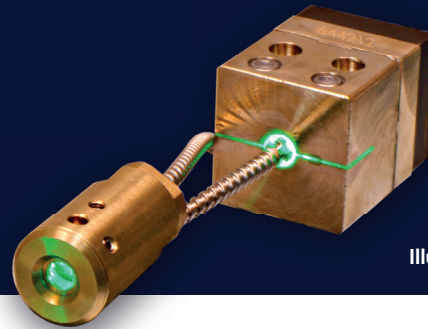


LINE LASERS



Illustrative representation

These laser modules are available in both plastic and glass optics.
They are available in both CW mode and modulated.

LINE LASER RED

LASER DIODE MODULES WITH LINE GENERATOR

DESCRIPTION	WAVE-LENGTH (nm)	OUTPUT POWER (mW)	BEAM DIAMETER (mm)	BEAM DIVERGENCE (mrad)	OPERATING VOLTAGE (V)	OPERATING TEMPERATURE (°C)	OUTLINE DIMENSIONS Ø x L (mm)	OPTIONAL MODULATION
IMM1255-635-1-L-Y	635	0.95	0.7 x 100	0.6	4.5 - 5.5	-10 - +45	12 x 55	0 - 25 kHz
IMM1255-635-8-L-Y	635	8	0.7 x 100	0.6	4.5 - 5.5	-10 - +45	12 x 55	0 - 25 kHz
IMM1255-655-1-L-Y	655	0.95	0.7 x 100	0.6	4.5 - 5.5	-10 - +65	12 x 55	0 - 25 kHz
IMM1255-655-50-L-Y	655	50	0.7 x 100	0.6	4.5 - 5.5	-10 - +65	12 x 55	0 - 25 kHz
IMM1618-635-1-L	635	0.95	0.7 x 80	0.4	4.5 - 5.5	-10 - +45	16 x 18	
IMM1618-635-8-L	635	8	0.7 x 80	0.4	4.5 - 5.5	-10 - +45	16 x 18	
IMM1618-655-1-L	655	0.95	0.7 x 80	0.4	4.5 - 5.5	-10 - +65	16 x 18	
IMM1618-655-50-L	655	50	0.7 x 80	0.4	4.5 - 5.5	-10 - +65	16 x 18	

FEATURES

- High output power range
- Wide wavelength range
- Development and production in Germany
- Various sizes
- Customized solutions available

APPLICATIONS

- Pointing
- Alignment lasers
- Laboratory instruments
- Measuring instruments
- Sensors

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LINE LASER RED

GENERAL	VALUE	NOTE
Wavelength	660 nm ($\Delta\lambda$ max. 10 nm)	Additional on request
Output power (max.)	85 mW	Additional on request
Beam adjustment	Focus distance: 300 mm	Collimated beam & other focus distances on request
Fan angle	60°C $\pm$ 3 % @ 660 nm	On request
Line width (1/e ²) (focussed @300 mm)	0.2 mm $\pm$ 0.1 mm	Depending on laser diode
Operation temperature	0°C to +60°C	Others on request
System storage temperature range	-40°C to +70°C	
ELECTRONICS	VALUE	NOTE
Supply voltage	5 V to 36 V	
Operating current	300 mA max. (@5 V)	
Modulation digital	Digital (5 V), max. 500 kHz	
Modulation analog		On request
ESD Rating	$\pm$ 8 kV contact discharge	61000-4-2 (Level 4)
Protection circuit	Reverse polarity protection, surge protection	
Cable	4 wires (AWG22), grey, $\varnothing$ = 4.9 mm	Suitable for drag chains „Supertronic PURö“
Cable length / Connection	2 m (Standard), open end with stripped and tinned wires	Customized connector on request
MECHANICS	VALUE	NOTE
Module length	65 mm	
Diameter	12 mm	
Material	Aluminium, black anodized	

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LINE LASER RED

PRODUCT VARIANTS

NO.	1	2	3
Pattern	 	 	 
Description	Single homogeneous line	Cross	5 parallel lines
Wavelength [nm]	660	660	660
Typ. power [mW] (@exit aperture)	85	60	55
Fan angle [°]	60 ± 3 %	37	30.2
Beam adjustment	focussed	focussed	focussed
Focus distance [mm]	300	300	300
Line width (1/e²) (@Focus) [mm]	0.2 ± 0.1	not applicable	not applicable
Operation modulation	cw / digital	cw / digital	cw / digital
Cable length [m]	2	2	2

All specifications @ T=25°C

FEATURES

- **Patterns**
 - Single homogeneous line
 - Cross
 - Parallel lines
 - More on request
- **Homogeneous laser line**
- **Fixed focus**
- **Compact design for integration into larger systems**
- **Operation mode: CW or analog modulation**
- **Robust design for harsh environments**
- **Cable suitable for drag chains**

APPLICATIONS

- Machine vision
- Measuring systems

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LINE LASER RED

SPECIFICATIONS MECHANICAL

Material	Aluminium anodized
Length	95 mm
Length of cable	n. s.
Diameter	17.9 mm

SPECIFICATIONS OPTICAL

Wavelength	660 nm
Optical output power (max.)	50 or 130 mW
min. line thickness (typ.@300 mm distance)	100 µm
Line Homogeneity	± 20 %
Line options	Thin line or high depth of focus
Focus distance typ.	300 mm to 1000 mm
Laser safety class	3B
Beam divergence	n. s.
Beam deviation	10 mrad
Fan angle	30° or 60° (other on request)

SPECIFICATIONS ELECTRICAL

Galvanic isolation	Yes (VCC and modulation input)
Operating voltage Vcc	4,5 VDC to 30 VDC (reverse voltage protection, for all wavelengths)
Operating current	350 mA max.
Modulation voltage	3 VDC - 5 VDC
Modulation	1 MHz
Switch-on delay	150 ns typ.
Switch-off delay	110 ns typ.
Rise time	45 ns max., 37 ns typ.
Fall time	25 ns max., 19 ns typ.
Connection options	M8 flange plug or cable

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LINE LASER RED

WAVELENGTH	OPTICAL OUTPUT		FAN ANGLE		LINE TYPE		CONNECTION TYPE	
	50 mW	130 mW	30°	60°	Thin	High focus depth	M8 flat connector	Cabel
660 nm		•	•	•	•	•	•	•

FEATURES

- Laser diode module
- Ajustable focus
- Homogeneous line
- Different wavelength and angle available

APPLICATIONS

- Machine vision
- Measuring systems

Subject to technical modifications. As per October 2024.

LINE LASER GREEN

LASER DIODE MODULES WITH LINE GENERATOR

DESCRIPTION	WAVE-LENGTH (nm)	OUTPUT POWER (mW)	BEAM DIAMETER (mm)	BEAM DIVERGENCE (mrad)	OPERATING VOLTAGE (V)	OPERATING TEMPERATURE (°C)	OUTLINE DIMENSIONS Ø x L (mm)	OPTIONAL MODULATION
IMM1255-520-1-L	520	0.95	0.7 x 100	2.5 - 10	-10 - +60	12 x 55	0 - 200 kHz	0 - 25 kHz
IMM1255-520-50-L	520	50	0.7 x 100	2.5 - 10	-10 - +60	12 x 55	0 - 200 kHz	0 - 25kHz

GENERAL	VALUE	NOTE
Wavelength	520 nm ($\Delta\lambda$ max. 10 nm)	Additional on request
Output power (max.)	80 mW	Additional on request
Beam adjustment	Focus distance: 300 mm	Collimated beam & other focus distances on request
Fan angle	60° ± 3 % @ 520 nm	On request
Line width (1/e²) (focussed @300 mm)	0.2 mm ± 0.1 mm	Depending on laser diode
Operation temperature	0°C to +60°C	Others on request
System storage temperature range	-40°C to +70°C	

ELECTRONICS	VALUE	NOTE
Supply voltage	9 V - 36 V (520 nm)	
Operating current	300 mA max. (@5 V)	
Modulation digital	Digital (5 V), max. 500 kHz	
Modulation analog		On request
ESD Rating	±8 kV contact discharge	61000-4-2 (Level 4)
Protection circuit	Reverse polarity protection, surge protection	
Cable	4 wires (AWG22), grey, Ø = 4.9 mm	Suitable for drag chains „Supertronic PURö“
Cable length / Connection	2 m (Standard), open end with stripped and tinned wires	Customized connector on request

MECHANICS	VALUE	NOTE
Module length	65 mm	
Diameter	12 mm	
Material	Aluminium, black anodized	

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LINE LASER GREEN

PRODUCT VARIANTS

NO.

1

Pattern



Description	Single homogeneous line
Wavelength [nm]	520
Typ. power [mW] (@exit aperture)	80
Beam adjustment	focussed
Focus distance [mm]	300
Line width (1/e ²) (@Focus) [mm]	0.2 ± 0.1
Operation modulation	cw / digital
Cable length [m]	2

All specifications @ T=25°C

FEATURES

- **Patterns**
 - Single homogeneous line
 - More on request
- **Homogeneous laser line**
- **Fixed focus**
- **Compact design for integration into larger systems**
- **Operation mode: CW or analog modulation**
- **Robust design for harsh environments**
- **Cable suitable for drag chains**

APPLICATIONS

- Machine vision
- Measuring systems

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LINE LASER GREEN

SPECIFICATIONS MECHANICAL

Material	Aluminium anodized
Length	95 mm
Length of cable	n. s.
Diameter	17.9 mm

SPECIFICATIONS OPTICAL

Wavelength	520 nm
Optical output power (max.)	50 or 130 mW
min. line thickness (typ.@300 mm distance)	100 µm
Line Homogeneity	± 20 %
Line options	Thin line or high depth of focus
Focus distance typ.	300 mm to 1000 mm
Laser safety class	3B
Beam divergence	n. s.
Beam deviation	10 mrad
Fan angle	30° or 60° (other on request)

SPECIFICATIONS ELECTRICAL

Galvanic isolation	Yes (VCC and modulation input)
Operating voltage Vcc	4,5 VDC to 30 VDC (reverse voltage protection, for all wavelengths)
Operating current	350 mA max.
Modulation voltage	3 VDC - 5 VDC
Modulation	1 MHz
Switch-on delay	150 ns typ.
Switch-off delay	110 ns typ.
Rise time	45 ns max., 37 ns typ.
Fall time	25 ns max., 19 ns typ.
Connection options	M8 flange plug or cable

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LINE LASER GREEN

WAVELENGTH	OPTICAL OUTPUT		FAN ANGLE		LINE TYPE		CONNECTION TYPE	
	50 mW	130 mW	30°	60°	Thin	High focus depth	M8 flat connector	Cabel
520 nm	•		•	•	•	•	•	•

FEATURES

- Laser diode module
- Ajustable focus
- Homogeneous line
- Different wavelength and angle available

APPLICATIONS

- Machine vision
- Measuring systems

Subject to technical modifications. As per October 2024.

LINE LASER BLUE

GENERAL	VALUE	NOTE
Wavelength	405 nm, 450 nm, ($\Delta\lambda$ max. 10 nm)	Additional on request
Output power (max.)	80 mW (405 nm), 50 mW (450 nm)	Additional on request
Beam adjustment	Focus distance: 300 mm	Collimated beam & other focus distances on request
Fan angle	$60^\circ \pm 3\%$ @ 405 nm / 450 nm	On request
Line width (1/e ²) (focussed @300 mm)	$0.2 \text{ mm} \pm 0.1 \text{ mm}$	Depending on laser diode
Operation temperature	0°C to +60°C	Others on request
System storage temperature range	-40°C to +70°C	
ELECTRONICS	VALUE	NOTE
Supply voltage	9 V - 36 V (405/450 nm)	
Operating current	300 mA max. (@5 V)	
Modulation digital	Digital (5 V), max. 500 kHz	
Modulation analog		On request
ESD Rating	$\pm 8 \text{ kV}$ contact discharge	61000-4-2 (Level 4)
Protection circuit	Reverse polarity protection, surge protection	
Cable	4 wires (AWG22), grey, $\varnothing = 4.9 \text{ mm}$	Suitable for drag chains „Supertronic PURö“
Cable length / Connection	2 m (Standard), open end with stripped and tinned wires	Customized connector on request
MECHANICS	VALUE	NOTE
Module length	65 mm	
Diameter	12 mm	
Material	Aluminium, black anodized	

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LINE LASER BLUE

PRODUCT VARIANTS

NO.

1

Pattern



Description	Single homogeneous line
Wavelength [nm]	405, 450
Typ. power [mW] (@exit aperture)	85 (405 nm) 50 (450 nm)
Beam adjustment	focussed
Focus distance [mm]	300
Line width (1/e ²) (@Focus) [mm]	0.2 ± 0.1
Operation modulation	cw / digital
Cable length [m]	2

All specifications @ T=25°C

FEATURES

- **Patterns**
 - Single homogeneous line
 - More on request
- **Homogeneous laser line**
- **Fixed focus**
- **Compact design for integration into larger systems**
- **Operation mode: CW or analog modulation**
- **Robust design for harsh environments**
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APPLICATIONS

- Machine vision
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