

# DOE LASERS



Illustrative representation

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







## DOE 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	$60^\circ \pm 3\%$ @ 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

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## DOE LASER RED

### PRODUCT VARIANTS

No.	1	2	3	4	5	6
Pattern						
Description	Single homogeneous line	Cross	5 parallel lines	5 concentric rings	Viewfinder	17 x 17 dot matrix
Wavelength [nm]	660	660	660	660	660	660
Typ. power [mW] (@exit aperture)	85	60	55	55	55	55
Fan angle [°]	60 ± 3 %	37	30.2	2.8	37.7 x 27.9	15.2
Beam adjustment	focussed	focussed	focussed	focussed	focussed	focussed
Focus distance [mm]	300	300	300	300	300	300
Line width (1/e <sup>2</sup> ) (@Focus) [mm]	0.2 ± 0.1	not applicable	not applicable	not applicable	not applicable	not applicable
Operation modulation	cw / digital	cw / digital	cw / digital	cw / digital	cw / digital	cw / digital
Cable length [m]	2	2	2	2	2	2

All specifications @ T=25°C

### FEATURES

#### ○ Patterns

- Cross
- Parallel lines
- Concentric rings
- Viewfinder
- Dot matrix
- 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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## DOE LASER GREEN

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	
Line width (1/e <sup>2</sup> ) (focussed @300 mm)	0.2 mm ± 0.1 mm	
Operation temperature	0°C to +60°C	
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	

## DOE 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 <sup>2</sup> ) (@Focus) [mm]	0.2 ± 0.1
Operation modulation	cw / digital
Cable length [m]	2

All specifications @ T=25°C

### FEATURES

- **Patterns**
  - 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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## DOE 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° ± 3% @ 405 nm / 450 nm	
Line width (1/e <sup>2</sup> ) (focussed @300 mm)	0.2 mm ± 0.1 mm	
Operation temperature	0°C to +60°C	
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	±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	

## DOE 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 <sup>2</sup> ) (@Focus) [mm]	0.2 ± 0.1
Operation modulation	cw / digital
Cable length [m]	2

All specifications @ T=25°C

### FEATURES

- **Patterns**
  - 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

Subject to technical modifications. As per October 2024.

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IMM Photonics GmbH | Ohmstraße 4 | 85716 Unterschleißheim | Germany | imm-photonics.de

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