

Laser Module ZM18-VISION

The vision industries new standard.

The M18-V series sets the benchmark for laser modules in industrial machine vision. With a wavelength range of 405 to 830 nm, the M18-V series covers the entire spectrum of typical machine vision applications.

The compact ZM18 form factor enables seamless integration into existing systems — without any mechanical modifications. Precise imaging starts with the right illumination.



Wavelengths:



Easy
Installation



Output Power up
to 170 mW



Shock Resistant



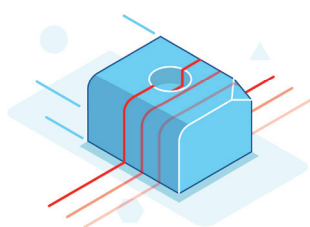
IP 67



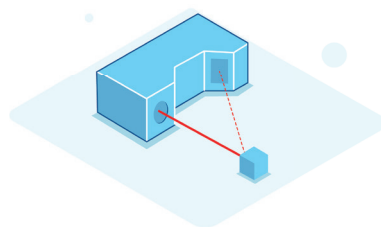
Wavelength range
from 405 to 830 nm

Highlights

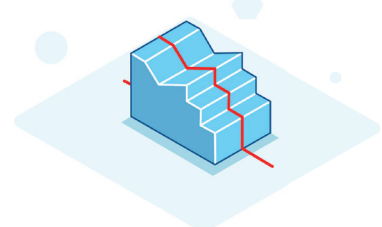
- Wavelength range from 405 to 830 nm
- Proven M18 housing in compact sensor-style design
- Manually focusable & fixed focus available
- Optical output power up to 170 mW
- Seamless integration into existing OEM systems
- IP67



Machine Vision



Triangulation Sensors



3D-Measurement

Projection		Homogeneous intensity distribution, Gaussian profile, spot or DOE
Optic		Elliptical spot, Powell lens, Gaussian beam, Diffractive optical element
Opening angle	°	20, 30, 45, 60, others on request
Line straightness	%	<0.1 (typ. 0.05)
Focus area	mm	100 to 10.000
Max. line homogeneity (integral)	%	<25

Digitale Modulation (Pin 2)

Signal level		Programmable polarity (standard active high) TTL signal levels usable for triggering and pulse modulation.
Maximum frequency	kHz	<500
Rise-/Fall Time	ns	<300

Ambient conditions

Linearity	%	<5 (10 to 100 of the laser power)
Active area	VDC	0 to 1
Laser Power Control Range	%	10 to 100 of the nominal laser power
Input voltage Vin	VDC	0 to 1

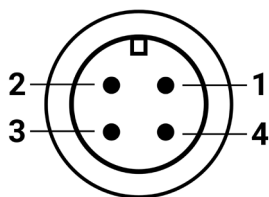
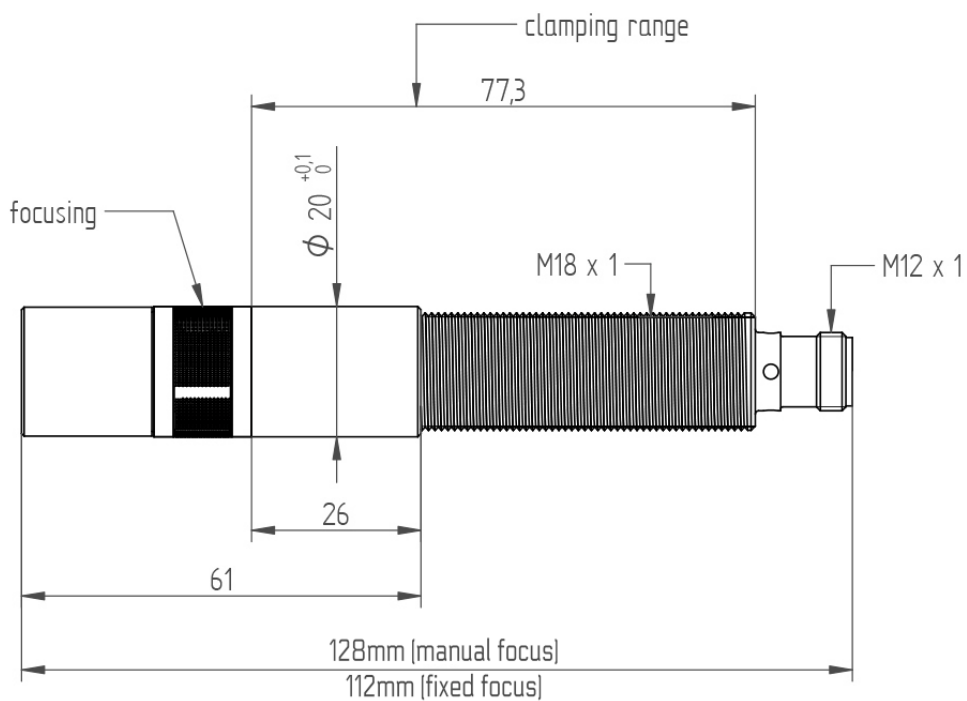
Environmental conditions

Operating temperature	°C/°F	−10 to +50/14 to +122
Storage temperature	°C/°F	−40 to +85/−40 to 185
Humidity	%	<90, non-condensing
Dissipated heat	W	<2.5

Mechanical specifications

Weight (netto)	g/lbs	85/0.14 65/0.95 (FIXED FOCUS)
Length	mm/in	128/5.04 112/4.41 (FIXED FOCUS)
Head diameter Ø	mm/in	20/0.79
Material		Optical head: black anodized aluminum Housing body: chrome-plated brass
Color		Natural (aluminum), partially black anodized
Protection class		IP67
Guarantee		24 months
LED display		Green: Power-On Orange: Laser-On (blinking indicates failure)
CE-Conformity		Yes

ZM18-V / ZM18-S3



M12 4-pin: A-Coding Male Connector

According to IEC 61076-2-101

Pin-1	V+
Pin-2	Dig.-Modulation or I2C-SDA
Pin-3	V-(GND)
Pin-4	Analog Intensity Control or I2C-SCL