

## Laser Distance Measuring Device LMC-J-0310

The LMC-J-0310 distance measuring laser is robustly engineered especially for industrial applications. With a maximum range of up to 3000 meters, it can measure up to 300m and more (depending on target reflectivity) with no special reflector needed. Measuring values are provided continuously via the integrated RS422/RS232 or analog 4 to 20 mA interfaces. As an option, ProfiBus and SSI interfaces are available. In this way the device is providing position and velocity information during the production process.

The LMC-J-0310 can also be used in distance and speed measurement mode. All measuring parameters are adjustable.

The high measuring speed allows the distance measurement of extremely fast moving objects. The operation principle of the LMC-J-0310 is time delay measurement, the measuring time is adjustable between 0.5 and 1000 ms (a special version with 0.1ms is also available). Within a fraction of second one distance measurement is obtained by means of several hundreds or thousands of individual measurements.

For easy positioning up to approx. 20m from the target, the sensor has an integrated pilot laser. For larger distances an optional scope is available.

Additional features of the device are a free programmable trigger in/output and 2 switch outputs with an adjustable threshold, that can be used for distance warning like in collision protection applications.

Status LED's at rear of unit show important information directly:



### Technical Data

Power supply	10 to 30 VDC
Power consumption	< 5W
Serial Interface	RS422 / RS232 (cannot be changed) BR 1,200 to 460,800 (standard 9600)
Analogue Interface	4 to 20mA
Alarm output	2 adjustable high side switches, with window function, max 0.2A
Trigger	1 fully adjustable trigger in/output
Optional	ProfiBus, SSI
Temperature	Internal Temperature measurement with adjustable internal heater control (output via RS interface possible)
Signal Quality	Output of the signal strength via RS interface possible
Laser class	Class 1 (EN 60825-1:2003-10) For special applications 1M
Wave length	905nm
Pilot laser	integrated 650 nm, < 1 mW, for easy positioning (Laser class 2)
Range	0.5 to 3000 m (with reflector) 0.5 to 300 m (white target @ 90% reflectivity)
Speed	0 to 100 m/s (distance 0 to 700 m)
Divergence	2 mrad, optional 10 mrad
Diameter of beam	3000 mm at 1000 m
Accuracy	+/- 20 mm (at -10 to +40°C) +/- 60mm (at -20 to +60°C)
Statistical spread	+/- 1 cm
Resolution	1 mm
Measuring time distance	0.5 to 1000 ms (0.1 to 1000 ms special version)
Measuring time speed	0.5 to 1000 ms
Reflector	Diamond grade foil, reflectorless operation possible
Connection	1x M18, 12-pole (Binder Series 723) Optional: 2x M12, 4 or 5-poles acc. to the Bus Interface
Material of housing	Aluminium
Protection class	IP 65
EMV	acc. to 2004/108/EG
Temperature range	-40 to +60°C (built in heater)
Dimension	137mm x 57mm x 103.2mm (LxWxH)
Weight	Approx. 1 kg

