

LMC-J-0040-5 Laser Distance Measuring Device

Precise – Robust – Long Distance – W-LAN

- Measures distances with millimeter accuracy
- Precisely defines positions
- Detects movements

The LMC-J-0040-5 is an opto-electronic distance measuring module for industrial applications. The module operates on the basis of non-contact comparative phase measurement with amplitude modulation. The Laser diode (cw operation) has a divergence of 0.6 mrad for measurement with pinpoint accuracy. The sensor alignment can be easily achieved with the help of the red pilot laser. The measuring range on any natural surface is 0.2 to 30m. Distances of 30 to 100m depend on the surface reflectivity (e.g. concrete 30%, white paper 90%). For longer ranges, we can provide special plastic reflectors with a very high reflectivity of 2000%. The measured result is available on the RS 232 / RS 422 / W-LAN data interface. A digital switching output, an analog 4 - 20mA output and an optional Profibus output is also available.

The W-LAN extension enables access to a local network or the Internet. The fully developed TCP/IP network stack and OS are integrated. It includes a built-in web server as well and can be used for configuration or to display operating and troubleshooting information via online support or attached links.

Features:

- Laser class 2 for eye safe operation
- Non-reflector measurement
- Millimeter accuracy measurement on any surface
- Easy installation
- Wi-Fi 802.11b
- TKIP security, WEP 64/128-bit data encryption
- Supports Windows/Linux COM driver
- Configuration via port 1, or WLAN. Setup by Hyperterminal, Telnet, SNMP
- Configuration via browsers is possible
- Autostart mode to communicate between two serial devices can be selected
- Meets IP 65 protection class for industrial use
- Also available in explosion-proof version



Technical Data

Measuring range: *1	0.2 to 30 m on any natural surface More than 100 m possible
Measuring accuracy: *2	± 2 mm under defined measuring condition ± 3 mm
Measuring resolution:	Depends on scale factor (1 mm with SF = 1)
Repeatability	≤ ± 0.5 mm
Measuring rate: *1	10 Hz fixed on white surface, 5 Hz (up to 10 Hz) on other surfaces
Connector:	12 pin (Binder Series 723)
Laser divergence:	0.6 mrad
Laser classification:	≤ 1 mW under IEC 825-1, laser class 2 (red light)
Serial Interface:	RS 232/RS 422 (switch able), baud rate 9600, format 8n1
Wireless LAN	
Security	WEP, WPA, TKIP
Radio Type	2.4 to 2.4835 GHz, DSSS, 11, 13, 14 selectable channels, 1, 2, 5.5, 11 Mbps Tx Rate
Tx. Distance	more than 100m indoor (in open areas) xkm outdoor (with high gain antenna)
Tx. Power	14dBm +/- 1dBm
Antenna	Omni directional 2.15dBi
Antenna Connector	1, RP-SMA
Standards	WEP, ARP, UDP, TCP, ICMP, SNMP, AutoIP, DHCP, Tftp, Telnet, HTTP
Switching output:	Programmable switching threshold and hysteresis, "high-side-switch" with 0.5A load capacity
Analog output:	programmable distance range limits, 4 mA to 20 mA
Operating temperature:	-10°C to +50°C
Supply voltage:	10 to 30 VDC
Dimensions:	212 x 96 x 50 mm (L x W x H) (without Antenna)
Weight:	Approx 1000 g
Protection class:	IP 65

*1 dependent on target reflectivity, stray light influences and atmospheric conditions

*2 statistical spread 95%

Sensing Solutions for Material Handling and Factory Automation