

New. Laser pick-up LS 1 / LS 10 - OEM.

Non-contact distance measurements on the shop floor



Millitron 1240 - OEM

Mounting angle

Laser pick-up LS1 or LS10 - OEM

Control unit for laser pick-up

Besides the well known applications of the LS 1/LS 10 laser pick-ups with Perthometer Concept, it is now possible to connect the laser pick-up (OEM) directly to systems via a Millitron unit.

Advantages

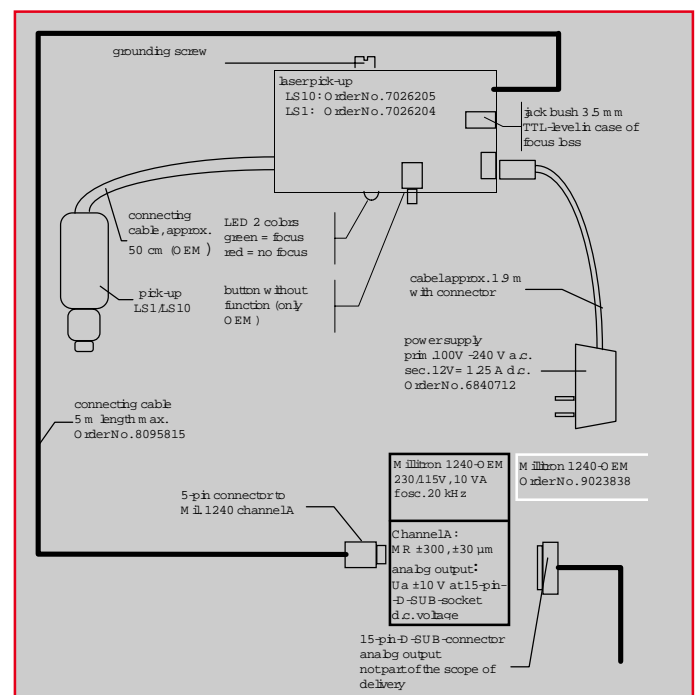
- Easy to handle on the shop floor
- Different mounting possibilities of the laser pick-up to customer specific pick-up holder
- Millitron and laser pick-up as a paired unit
- Calibrated analog output voltage of ± 10 volt
- Measuring range of $\pm 30 \mu\text{m}$ ($\pm .0012$ in) and $\pm 300 \mu\text{m}$ ($\pm .012$ in).
- Resistant to wear measurements, even on sensitive surfaces

Application examples

- Non-contact measurements on the shop floor
- Quick testing of serie products
- Tracing of soft and sensitive materials
- Measurements on printed circuit boards and screens
- Flatness measurements on wafers
- Testing of thickness
- Distance measurements e.g. via PCS



EXACTLY



LS 1 / LS 10 - OEM laser pick-up

Measuring range	$\pm 300 \mu\text{m}$ ($\pm .012 \text{ in}$)
Linearity deviation	$< 1\%$
Basic distance (specified on the pick-up)	LS 1 = 1 mm (.04 in); LS 10 = 10 mm (.4 in)
Measuring spot diameter	Approx. $2 \mu\text{m}$ ($80 \mu\text{in}$)
Testpiece	with plane or curved surface Reflectivity of the surface: 4 % ... 95 % Max. inclination of the surface: 13°
Laser power	0.2 mW (laser class 1 in accordance with DIN VDE 0837) and IEC 825). Laser light wavelength 780 nm ($31.2 \mu\text{m}$) (infrared)
Output for focus loss	Jack bush $\varnothing 3.5 \text{ mm}$ (.14 in) TTL-level for a TTL-charge TTL-high-level in case of focus loss (LED = red) TTL-low-level for sensor in focus (LED = green)
Noise	$< 200 \text{ nm}$ ($8 \mu\text{in}$)
Degree of protection	IP 50
Power supply	Power pack 100 - 240 V, 50 ... 60 Hz, 12 V DC, 1.25 A
Working temperature	$+20 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ ($68 \text{ }^\circ\text{F} \pm 41 \text{ }^\circ\text{F}$)
Operating temperature	$+5 \text{ }^\circ\text{C} \dots +35 \text{ }^\circ\text{C}$ ($41 \text{ }^\circ\text{F} \dots 95 \text{ }^\circ\text{F}$), rel. humidity of max. 85 % (non condensing)
Storing temperature	$-20 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$ ($-68 \text{ }^\circ\text{F} \dots +140 \text{ }^\circ\text{F}$)
Dimensions (L x W x H)	LS 1: 43.5 mm x 27 mm x 80 mm 1.74 in x 1.08 in x 3.2 in LS 10: 43.5 mm x 27 mm x 137 mm 1.74 in x 1.08 in x 5.48 in
Control unit: Mass approx. Connecting cable	125 mm x 90 mm x 25.5 mm (5 in x 3.6 in x 1.02 in) 2.4 kg (5.29 lb), transport case included length of 5 m (16.405 ft), 5-pin plug for connection to Millitron 1240 - OEM
Millitron 1240 - OEM	
Output voltage, calibrated (deviation $< 1\%$)	$\pm 10 \text{ V} =$ at $> 2\text{kW}$ for a Millitron1240 - OEM measuring range of $\pm 2000 \mu\text{m}$ (.0012 in) and a deflection of $\pm 300 \mu\text{m}$ (.012 in) of the LS 1/ LS 10 - OEM laser pick-up
Output voltage, not calibrated	$\pm 10 \text{ V} =$ at $> 2\text{kW}$ for a Millitron1240-OEM measuring range of $\pm 200 \mu\text{m}$ (.008 in) and a deflection of $\pm 30 \mu\text{m}$ (.0012 in) of the LS 1/ LS 10-OEM laser pick-up
Cutoff frequency f_g	approx. 500 Hz
Residual ripple of the d.c. voltage output: - in the measuring range $\pm 2000 \mu\text{m}$ (.0012 in):	display approx. $0 \mu\text{m} < 1 \text{ mVpp}$ corr. to $< 30 \text{ nm}$ display approx. $\pm 300 \mu\text{m}$ (.012 in) $< 2 \text{ mVpp}$ corr. to $< 60 \text{ nm}$
- in the measuring range ± 200 (.008 in) μm :	display approx. $0 \mu\text{m} < 1 \text{ mVpp}$ corr. to $< 3 \text{ nm}$ display approx. $\pm 30 \mu\text{m}$ ($\pm .0012 \text{ in}$) $< 2 \text{ mVpp}$ corr. to $< 6 \text{ nm}$
Assignment of the 15-pin D-SUB socket:	Pin 1 d.c. voltage output Pin 8 Gnd Pin 9 Gnd