

Compact Laser Displacement VL40 sensors series



Highlights

Laser displacement sensor, 655nm laser source, metal housing, LED display and button settings, rich interface.
Suitable for pharmaceutical, packaging, automotive, non-standard equipment and others.

- High quality compact Laser Displacement sensors series
- Up to 800mm sensing distance
- LED digital display + teaching function
- Strong resistance to ambient light, compact size
- Analog/switch dual output

Product parameters

Supply voltage	10-30VDC	
Ripple voltage	≤10%	
No-load current	≤150mA	
Power	1.5W	
Analog output	4...20mA, 0...5V or 0...10V	
Switch output	<NPN output type> NPN open collector transistor Maximum sink current: 200mA Applied voltage: 24V DC or less (between output and 0V) Residual voltage: 1.5V or less	<PNP output type> PNP open collector transistor Maximum sink current: 200mA External voltage: 24V DC or less (between output and +V) Residual voltage: 1.5V or less
Communication type	RS485, IO-Link	
Light source	655nm laser source	
Operation indicator	Yellow LED indicator (lights up when the output is ON), through type on the receiver	Yellow LED indicator (lights up when the output is ON)
Power indicator	Green LED (lights up when power is applied)	
Environmental resistance	Population degree	3 (Industrial environment)
	Protection	IP65 (IEC)
	Temp.	-25 ~ +55°C (Becareful not to condense or freeze), when stored: -40 ~ +70°C
	Humidity	50%RH (70°C)
	Light intensity	Incandescent lamp: the illuminance of the light-receiving surface is below 5000lx
	EMC	EN 60947-5-2
	Voltage reverse protection	500V AC for one min. between all supply terminals connected together and enclosure
Shock resistance	Vibration resistance	10~55Hz frequency,0.5mm amplitude in X,Y and Z directions for 1.5 hours each
	Shock resistance	10~55Hz frequency,0.5mm amplitude in X,Y and Z directions for 1.5 hours each
Repeatability	0.05mm@35...70mm; 0.1mm@60...160mm; 0.5mm@150...400mm; 1mm@400...600mm; 3mm@600...800mm	
Material	Enclosure: Stainless steel Lens: PMMA	
Response time	1.5ms / 5ms / 10ms switchable	
Dimensions	60.4*20*35.5mm	

Input/Output circuit



Fig.1

Serial number	Wire color	Function
1	brown	10...30VDC
2	white	O _A ANALOG OUTPUT(I/U)
3	blue	0V
4	black	PNP/NPN
5	grey	N/A



Fig.3

Serial number	Function	Core color of connector type
1	Power +	BN
2	IO-Link-DIO	WH
3	Power -	BU
4	IO-Link-CIQ	BK
5	NPN/PNP	GY



Fig.2

Serial number	Function	Core color of cable type	Core color of connector type
1	Power +	BN	BN
2	485B	GY	WH
3	Power -	BU	BU
4	NPN/PNP	BK	BK
5	485A	PK	GY

Dimension

