

1D Laser Distance Sensor

- Range resolution: 0.1mm
- Frequency: up to 30Hz
- Range: 0.05-90/200m (Natural target)
- Ambient light limit: <30klux
- Interfaces: RS485, CAN, analog, 1 switch input, 2 switch outputs
- Working temperature: -20~+55°C
- Applications: • Container positioning Length measurement during material cutting • Positioning trolleys and translation carts • collision Monitoring of cranes/gantry cranes • Positioning of large workpieces during Assembly • Water level measurement of rivers and lakes



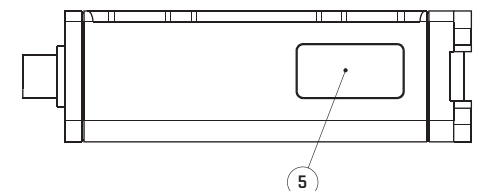
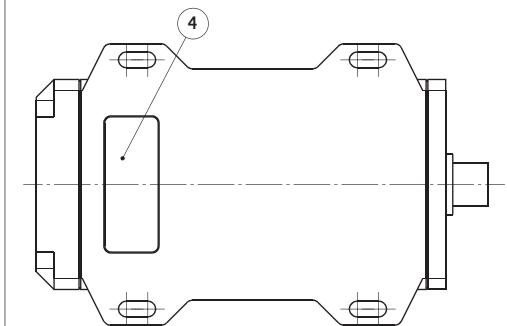
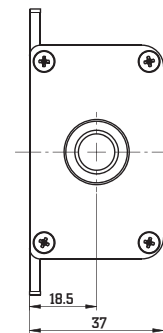
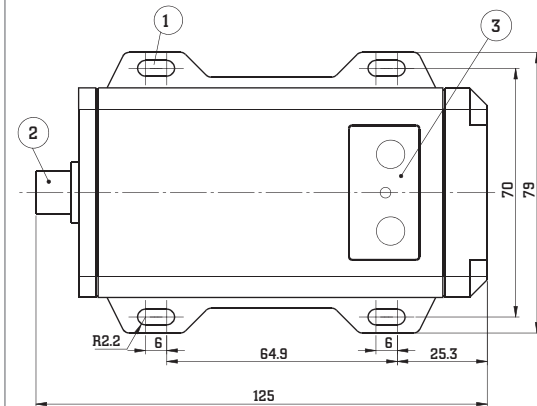
1D Laser distance sensor



Specification table

Model		A090	A090-M	A200	A200-M
Name		Whole machine of laser distance sensor	Laser distance sensor module	Whole machine of laser distance sensor	Laser distance sensor module
Item	Unit	Distance sensor indicators			
Laser wavelength	nm	650-660	650-660	650-660	650-660
Laser safety level		Class II (IEC60825-1:2014)	Class II (IEC60825-1:2014)	Class II (IEC60825-1:2014)	Class II (IEC60825-1:2014)
Laser power	mW	0.75-0.95mW	0.75-0.95mW	0.75-0.95mW	0.75-0.95mW
Distance resolution	mm	0.1	0.1	0.1	0.1
Measurement range	m	0.2 ~ 45m@90% diffuse reflection(300lux,30Hz) 0.05 ~ 90m@90% diffuse reflection(300lux,single)	0.2 ~ 45m@90% diffuse reflection(300lux,30Hz) 0.05 ~ 90m@90% diffuse reflection(300lux,single)	0.2 ~ 45m@90% diffuse reflection(300lux,30Hz) 0.05 ~ 120m@90% diffuse reflection(1000lux,single) 0.05 ~ 200m@90% diffuse reflection(1000lux,single)	0.2 ~ 45m@90% diffuse reflection(300lux,30Hz) 0.05 ~ 120m@90% diffuse reflection(1000lux,single) 0.05 ~ 200m@90% diffuse reflection(1000lux,single)
accuracy	mm	±1.5mm (90% diffuse reflection, <20m) ±3.0mm (full range)	±1.5mm (90% diffuse reflection, <20m) ±3.0mm (full range)	±1.5mm (300lux,90% diffuse reflection, <20m) ±3.0mm (300lux,90% diffuse reflection, <100m) ±5.0mm (300lux,90% diffuse reflection, <200m)	±1.5mm (300lux,90% diffuse reflection, <20m) ±3.0mm (300lux,90% diffuse reflection, <100m) ±5.0mm (300lux,90% diffuse reflection, <200m)
Measuring frequency	Hz	Single, 5,10,20,30, can be set	Single, 5,10,20,30, can be set	Single, 5,10,20,30, can be set	Single, 5,10,20,30, can be set
Ethernet connection		RS485, CAN, Analog	RS485, CAN, Analog	RS485, CAN, Analog	RS485, CAN, Analog
Connection		M12,12PIN, Male	12p,ZH1.5mm	M12,12PIN, Male	12p,ZH1.5mm
Horizontal error (Horizontal Angle)	°	±0.5°	±0.5°	±0.5°	±0.5°
Switching inputs	ea	1	1	1	1
Switching outputs	ea	2	2	2	2
Typical spot size (distance)	mm	7mm@10m	7mm@10m	7mm@10m	7mm@10m
Power consumption	W	<1.5w	<1.5w	<1.5w	<1.5w
Initialization time	ms	<1000ms	<1000ms	<1000ms	<1000ms
Shell material		Metal (aluminum)	/	Metal (aluminum)	/
Windshield material		Glass	/	Glass	/
Indicator status		3-color LED	/	3-color LED	/
Button		2 ea	/	2 ea	/
Mechanical Dimensions	mm	79×127×37mm	48.6×85.9×24.5mm	79×127×37mm	48.6×85.9×24.5mm
Operating voltage	VDC	7V-26V	7V-26V	7V-26V	7V-26V
Weight	g	350g	110g	350g	110g
Degree of protection		IP65	/	IP65	/
Operating temperature	°C	-20~+55	-20~+55	-20~+55	-20~+55
Storage temperature	°C	-25~+70	-25~+70	-25~+70	-25~+70
Air humidity	RH	<95%	<95%	<95%	<95%
Ambient light limit	LUX	<30'000	<30'000	<30'000	<30'000
Mounting		Fixed on both sides	The front part is fixed	Fixed on both sides	The front part is fixed
EMC		IEC 61000-6-2:2016-08 / IEC 61000-6-3:2006-07	IEC 61000-6-2:2016-08 / IEC 61000-6-3:2006-07	/	/
Vibration resistance		IEC 60068-2-6:2007	IEC 60068-2-6:2007	/	/
Shock resistance		IEC 60068-2-27:2008	IEC 60068-2-27:2008	/	/
Basic Software		LDM Sensor Tools	LDM Sensor Tools	LDM Sensor Tools	LDM Sensor Tools

Outline and Mounting



- No. 1 indicates the assembly position
- No. 2 indicates the position of the 12-pin plug
- No. 3 indicates the position of button overlay
- No. 4 indicates the position of model label
- No. 5 indicates the position of warning label