

OPTICAL LINEAR ENCODER

“Thick Body, Long Distance Measurement”

ALS-6



- Optical measurement
- Measuring lengths from 100 mm to 3200 mm
- High resolution up to 1 μm
- $\pm 10 \mu\text{m}$ accuracy
- 5 ball bearing system
- Single seal protection
- TTL RS-422 or Sinusoidal output signal
- Easy mounting
- 60 m/min traveling speed

ALS series optical linear encoder systems are protected from factors such as dust, shavings, dirt and coolant with its compact design. ALS6 series, which has optical measuring principle with glass ruler, can measure between 100 and 3200 mm.

APPLICATIONS

- | | | |
|-------------------------------------|-------------------------------------|---------------------------|
| • Manuel Benches | Linear Bearing Systems | Transfer Machines |
| • Press Brakes and Bending Machines | Automation and Robotic Applications | Turning, Milling |
| • Robotic / Material Packaging | Textile Machinery | Woodworking machines etc. |

TECHNICAL FEATURES

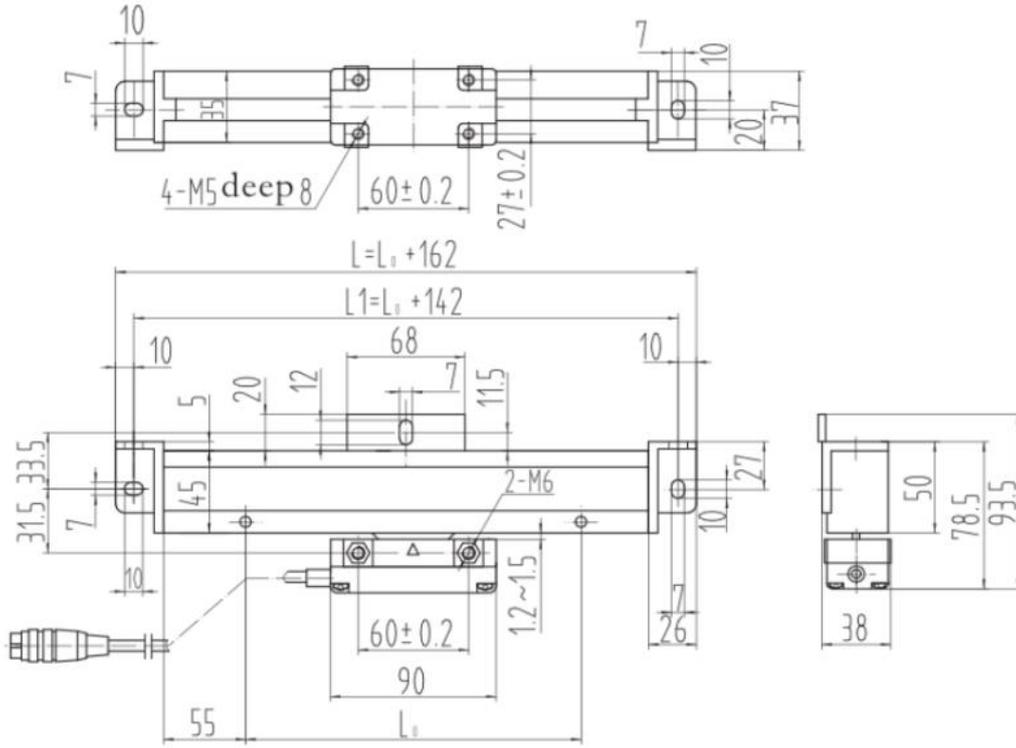
Measuring Type	Optical	Reference Mark	1 reference mark at every 50 mm
Measuring Lengths	Different lengths from 100 mm to 3200 mm	Body Material	Aluminum
Resolution	1 μm , 5 μm	Operating Temperature	0°C...50 °C
Signal Period	20 μm	Storage Temperature	-20°C...70 °C
Accuracy	$\pm 10 \mu\text{m}$	Protection Class	IP54
Repeatability	± 1 pulse	Electrical Connection	Spiral cable and socket (For TTL Signal:D-SUB 9 pin male socket / For Sinus Signal: M16/8 pin female socket)
Max traveling speed	60m/min		
Supply Voltage	5 VDC	Max cable length	50-500mm (3m armoured cable) 600-2000mm (5m armoured cable)
Output Type	TTL RS-422 or 11 μA pp Sinusoidal		

ELECTRICAL CONNECTIONS

PIN NO	CABLE COLOR	D-SUB 9 PIN SOCKET	M16/8 PIN FEMALE SOCKET
		TTL RS-422 SIGNAL	SINUS SIGNAL
1	WHITE	A	0°
2	BROWN	/B	180°
3	RED	+5VDC	+5VDC
4	BLACK	0V-GND	0V-GND
5	BLUE	/A	90°
6	GREEN	B	270°
7	YELLOW	/Z	Z
8	GREY	Z	N/C
9	-	Shield	N/C

In the table, the cable colors of sensors output signals are given. If the control circuit is suitable, in the line driver sensors, the not signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget that these edges have electricity too.

MECHANICAL DIMENSIONS



L₀: Measuring Length (mm) (different lengths from 100 to 3200mm)

L₁: Distance between mounting holes (mm)

L : Body Length (mm)

ORDER CODE

Model				Measuring Length	
				Different lengths from 100 mm to 3200 mm	
ALS 6	-	XX	-	XXX	
				Output	
				1 : TTL RS-422 (1µm)	
				5 : TTL RS-422 (5µm)	
				S : Sinusoidal 11µApp (1µm)	

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