OPTICAL LINEAR ENCODER

"Slim Body, Accurate Measurement"

ALS-4

- Optical measurement
- Measuring lengths from 50 mm to 1000 mm
- High resolution up to 1 µm
- ±10 µm accuracy
- 5 ball bearing system
- Single or double seal protection
- 5 VDC TTL quadrature or 1vpp 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. ALS4 series, which has optical measuring principle with glass ruler, can measure between 50 and 1000 mm.

APPLICATIONS

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

TECHNICAL FEATURES

Measuring Type	Optical
Measuring Lengths	Different lengths from 50 mm to 1000 mm
Resolution	1µm, 5µm or 1Vpp sinusoidal
Signal Period	20 µm
Accuracy	± 10 µm
Repeatability	± 1 pulse
Max traveling speed	60m/min
Supply Voltage	5 VDC
Output Type	5V TTL or 1Vpp Sinusoidal

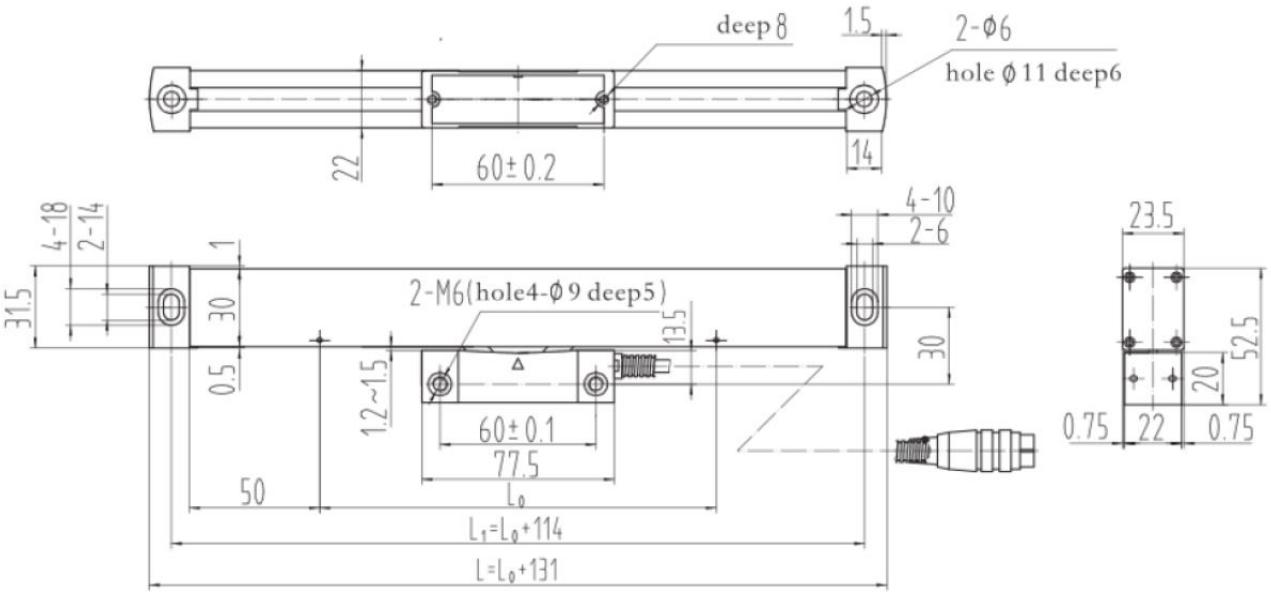
Reference Mark	1 reference mark at every 50 mm
Body Material	Aluminum
Operating Temperature	0°C…50 °C
Storage Temperature	-20°C…70 °C
Protection Class	IP54
Electrical Connection	Spiral cable and socket (For TTL Signal:D-SUB 9 pin male socket / For Sinus Signal: M16/8 pin female socket)
Max cable length	50-500mm (3m armoured cable) 600-2000mm (5m armoured cable)

ELECTRICAL CONNECTIONS

PIN NO	CABLE COLOR	D-SUB 9 PIN SOCKET TTL SIGNAL	M16/8 PIN FEMALE SOCKET 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

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 50 to 1000 mm)
L₁: Distance between mounting holes (mm)
L : Body Length (mm)

ORDER CODE

Model

Measuring Length

Different lengths from 50 mm to 1000 mm

ALS 4	-	XX	-	XXX

Resolution

01 : 1µm
05 : 5µm
S : Sinusoidal

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