



- Optical measurement
- Measuring lengths from 50 mm to 3200mm
- High resolution up to 1 μ m
- $\pm 10\mu$ m accuracy
- 5 ball bearing system
- Single seal protection
- 5 VDCTTL 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. ALS6 series, which has optical measuring principle with glass ruler, can measure between 50 and 3200mm.

APPLICATIONS

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|-------------------------------------|-------------------------------------|---------------------------|
| • 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 50 mm to 3200 mm	Body Material	Aluminum
Resolution	1 μ m, 5 μ m or 1Vpp sinusoidal	Operating Temperature	0°C..50°C
Signal Period	20 μ m	Storage Temperature	-20°C..70°C
Accuracy	$\pm 10 \mu$ 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	5V TTL or 1Vpp Sinusoidal		

ELECTRICAL CONNECTIONS

PIN NO	CABLE COLOR	D-SUB9 PIN SOCKET	M16/8 PIN FEMALE SOCKET
		TTL 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

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.

