

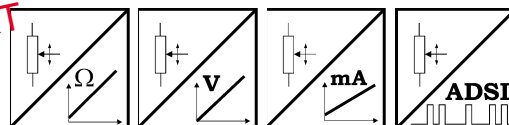
# WS2.1 Position Sensor with Analog or A/D converted synchronous serial output



## Compact Sensor for Medium Ranges

- Protection Class IP50
- Measurement Range:  
0 ... 1500 mm to 0 ... 2500 mm  
0 ... 59.06 in to 0 ... 98.43 in
- With Analog Output or  
A/D Converter with synchronous serial output

**Discontinued model**  
**Don't use for further developments**  
**Replaced by WS17KT**



<b>Specifications</b>	Outputs	Potentiometer: 1 kΩ Voltage: 0...10 V Current: 4...20 mA, 2 or 3 wire A/D Converter synchronous serial 12 Bit RS-485
	Resolution	Essentially infinite / ADSI: 12 Bit Full Scale
	Material	Aluminium and Stainless Steel Cable: Stainless Steel
	Sensing Device	Precision Potentiometer
	Connector	Male Socket 8 pin DIN 45326
	Linearity	Up to ±0,05 % Full Scale
	Protection class (IEC 529)	IP50
	Weight	1.8 kg approx.
	Environmental	
	Immunity to Interference	Refer to Output Specification
	Temperature	Refer to Output Specification
	Humidity	90 % R.H. max. non condensing
	Shock	50 g's max. for 6 ms Duration
	Vibration	10 g's max. (1 Hz - 2000 Hz)

## Order Code WS2.1 Analog

### Model Name

### Measurement Range (in mm)

1500 / 2000 / 2500

### Outputs

R1K = Potentiometer 1 kΩ (other Values on Request, i.e. 500Ω)

10V = with 0 ... 10 V Signal Conditioner

420A = with 4 ... 20 mA Signal Conditioner (2 wire)

420T = with 4 ... 20 mA Signal Conditioner (3 wire)

ADSI = with A/D Converter synchronous serial output 12 Bit / RS-485

### Linearity

L10 = ±0.10 %

L05 = ±0.05 %

Options (see catalog)

WS2.1 - [ ] - [ ] - [ ] - [ ]

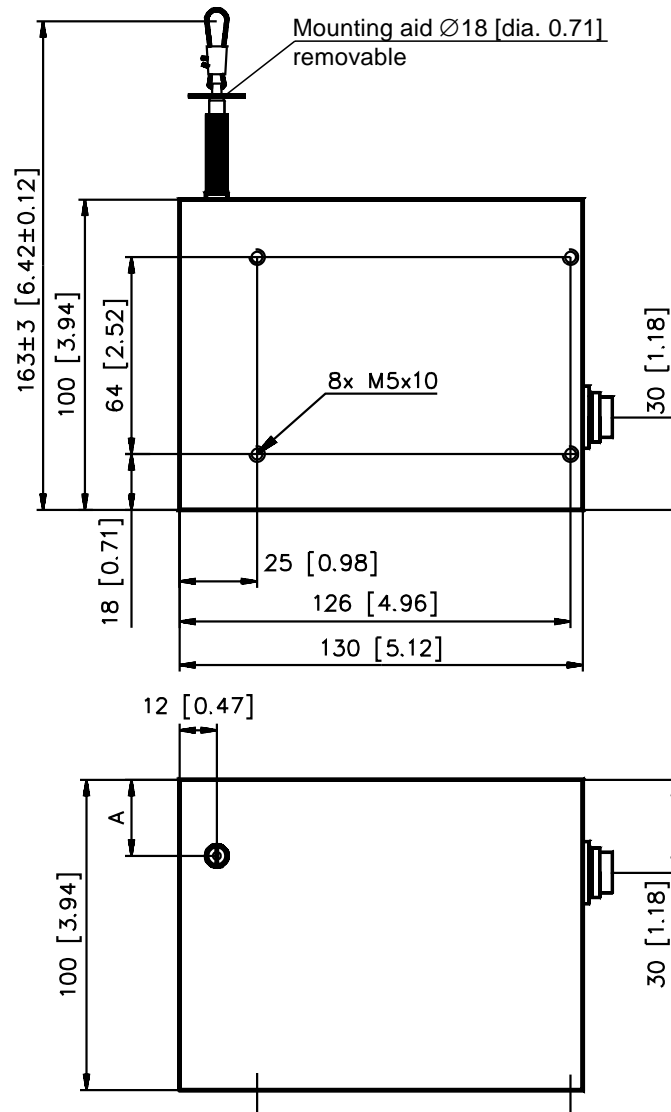
## Order Code Mating Connector

WS-CONN-D8

Order Example: WS2.1 - 2500 - 10V - L10



Cable Forces typical at 20 °C	Range		Maximum Pull-out Force [N]	Minimum Pull-in Force [N]
	[mm	in]		
	1500	59.06	10.2	6.7
	2000	78.74	8.4	5.4
	2500	98.43	7.2	4.8



Dimensions in brackets are inches.  
For guaranteed dimensions consult factory

Dimensions (mm)	Range	A
	1500	24.5
	2000	16.5
	2500	8.5
Dimensions (in)	59.06	0.96
	78.74	0.65
	98.43	0.33

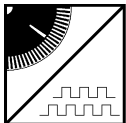
# WS2.1 Position Sensor with Incremental Encoder



### Compact Sensor for Medium Ranges

- Protection Class IP50
- Measurement range:  
0 ... 2500 mm  
0 ... 98.43 in
- Incremental Encoder Output

**Discontinued model**  
**Don't use for further developments**  
**Replaced by WS17KT**



Specifications	Outputs	Incremental Encoder Output with differential Push-pull Circuit for reliable Data Transmission. The output is compatible with LD, TTL and CMOS.
	Resolution	5 or 10 pulses per mm; 127 or 254 pulses per in.
	Distance between Reference Pulses	200 mm; 7.87 in
	Material	Aluminium and Stainless Steel. Cable: Stainless Steel
	Sensing Device	Incremental encoder
	Connector	Male Socket 8 pin DIN 45326
	Linearity	±0,05 % Full Scale
	Protection Class (IEC 529)	IP50
	Weight	1.8 kg approx.
	Environmental	
	Immunity to Interference (EMC)	Refer to Output Specification
	Temperature	Refer to Output Specification
	Humidity	85 % R.H. max. non condensing
	Shock	30 g's for 11 ms Duration
	Vibration	10 g's max. (50 Hz / 1 h)

Order Code WS2.1  
Incremental

Model Name

Measurement Range (in mm)

2500 (smaller measurement ranges included)

Pulses per mm

5 = 5 Pulses per mm; 127 pulses per in

10 = 10 Pulses per mm; 254 pulses per in

Output

WS2.1 - - - PP530

Order Code Mating Connector

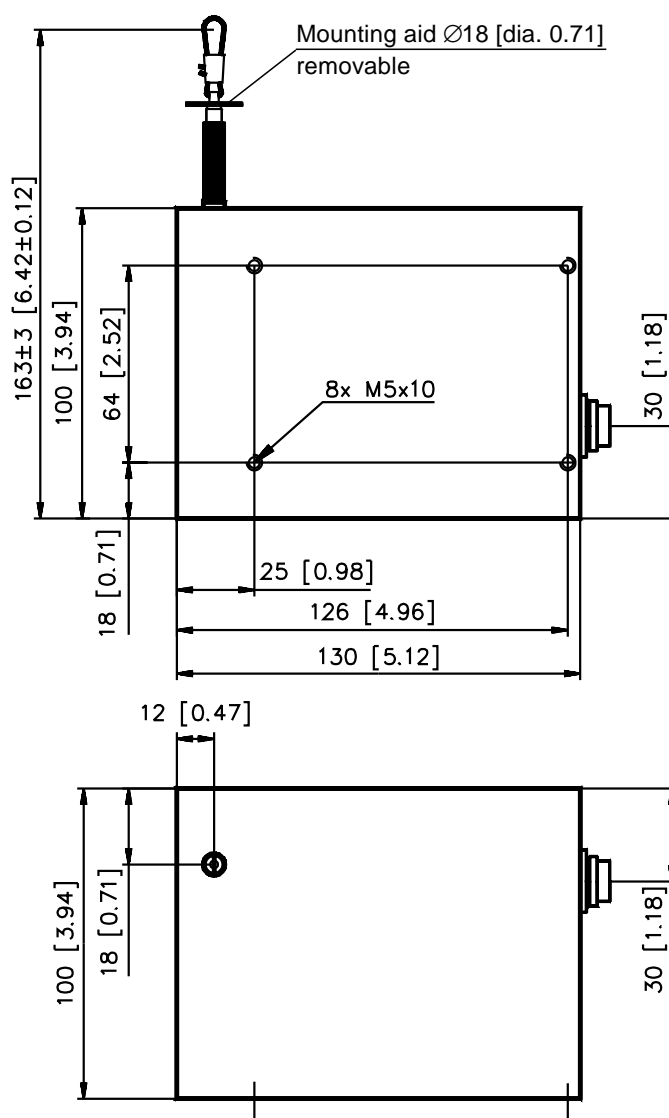
WS-CONN-D8

Order Example: WS2.1 - 2500 - 5 - PP530

## WS2.1 Position Sensor with Incremental Encoder



Cable Forces typical at 20 °C	Range		Maximum Pull-out Force [N]	Minimum Pull-in Force [N]
	mm	in		
	2500	98.43	8.6	5.7



Dimensions in brackets are inches.  
For guaranteed dimensions consult factory