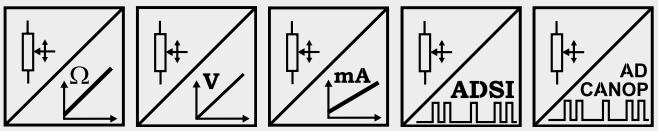
POSIWIRE®
WS10SG
Analog, SSI or CANopen Output

Very compact sensor for industrial applications

- **Protection class IP65**
- **Measurement range 0 ... 100 mm to 0 ... 1250 mm**
- **Analog output or**
  A/D converted synchronous serial output (SSI) or
  A/D converted CANopen output



Specifications

Outputs	Potentiometer 1 kΩ Voltage 0 ... 10 V Current 4 ... 20 mA, 2 or 3 wire Voltage or current output, programmable (PMUV/PMUI) A/D converted synchronous serial interface (SSI) A/D converted CANopen bus
Resolution	Analog: essentially infinite ADSI16: max. 16 bit f.s. ADCANOP: 16 bit f.s.
Linearity	Up to ±0.05% f.s.
Sensing device	Precision potentiometer
Material	Aluminum, stainless steel and plastic; cable: stainless steel
Protection class	IP65 (with mating connector only)
Connection	Male 8 pin socket M12 (ADCANOP: 5 pin socket)
Weight	350 g approx.
EMC, temperature	Refer to output specification

Order code WS10

WS10SG – □ – □ – □ – □ – □

Model name

Measurement range (in mm)
100 / 125 / 375 / 500 / 750 / 1000 / 1250

Output

R1K	= Potentiometer 1 kΩ
10V	= 0 ... 10 V signal conditioner
420A	= 4 ... 20 mA signal conditioner
420T	= 4 ... 20 mA signal conditioner
PMUV/PMUI	= Programmable 0... 10 V or 4 ... 20 mA signal conditioner
ADSI16	= A/D converted synchronous serial interface 16 bit (12 or 14 bit opt.)
ADCANOP	= A/D converted CANopen bus

Linearity

L10 = ±0.10 % option: L05 = ±0.05 % L25 = ±0.25 %

Cable fixing

M4	= M4 cable fixing
SB0	= Cable clip

Connection

M12	= 8 pin socket M12 (not for ADCANOP)
M12/CAN	= 5 pin socket M12 (only for ADCANOP)

Order code connector cable: see page 82/83

Order example: WS10SG - 1250 - 10V - L10 - M4 - M12

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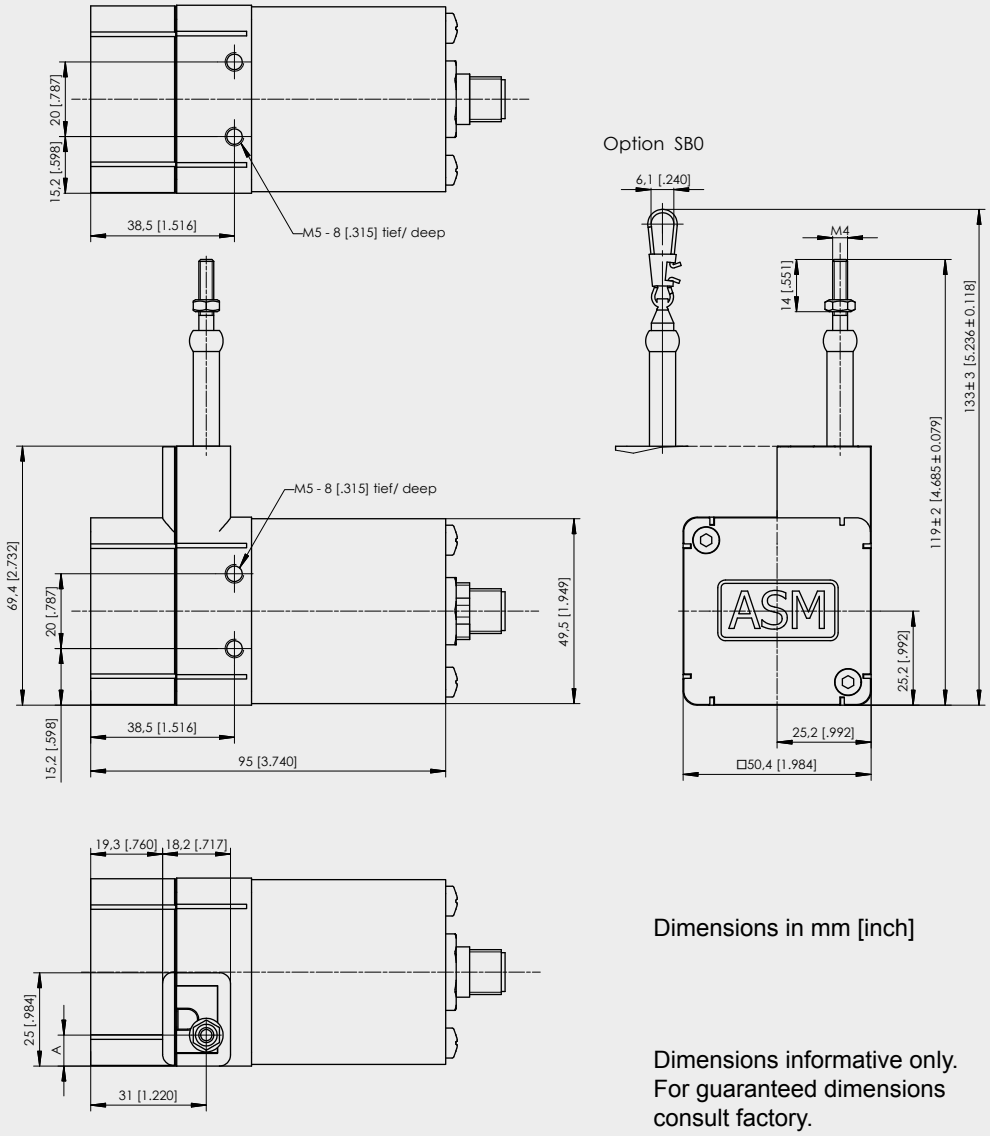
Cable forces, typical at 20 °C	Measurement range	Max. pull-out force	Min. pull-in force
	[mm]	[N]	[N]
	100	4.7	3.0
	125	4.6	2.4
	375	7.4	3.9
	500	5.5	2.8
	750	7.6	3.8
	1000	5.3	2.9
	1250	4.6	2.4

Outline drawing



Dimensions in mm [inch]

Dimensions informative only.
For guaranteed dimensions consult factory.

Dimensions in mm	Measurement range	A
	375; 750	12.4
	100; 125; 500; 1000; 1250	8

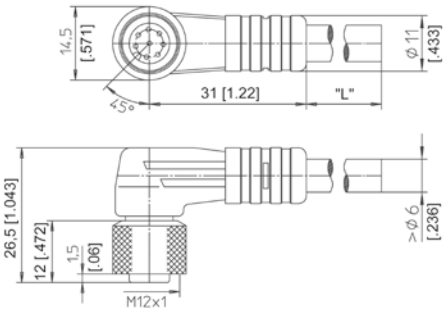
Connector cable for WS® position sensors
8 pin M12

The 8-lead shielded cable is supplied with a mating 8-pin 90° M12 connector at one end and 8 wires at the other end. Available lengths are 2 m, 5 m and 10 m. Wire: cross sectional area 0.25 mm².

Order code:

	KAB - XM - M12/8F/W - LITZE
IP69K:	**KAB - XM - M12/8F/W/69K - LITZE**

Length in m



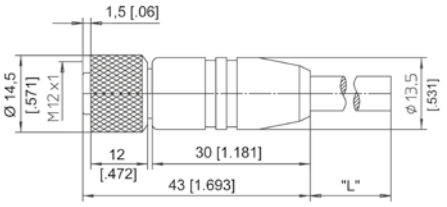
Connector cable for WS® position sensors
8 pin M12

The 8-lead shielded cable is supplied with a mating 8-pin M12 connector at one end and 8 wires at the other end. Available lengths are 2 m, 5 m and 10 m. Wire: cross sectional area 0.25 mm².

Order code:

	KAB - XM - M12/8F/G - LITZE
IP69K:	**KAB - XM - M12/8F/G/69K - LITZE**

Length in m



Connector cable wiring - M12, 8 pin

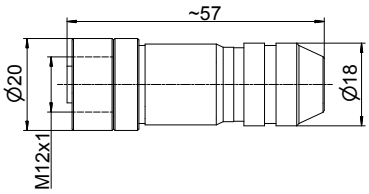
Connector pin / cable color							
1	2	3	4	5	6	7	8
White	Brown	Green	Yellow	Gray	Pink	Blue	Red

Connector for WS® position sensors
8 pin M12

Female connector.

Order code:

CONN - M12 - 8F - G

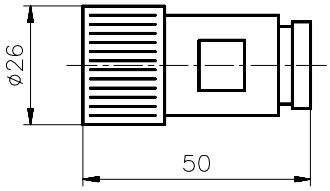


Connector for WS® position sensors
12 pin CONIN

Female connector.

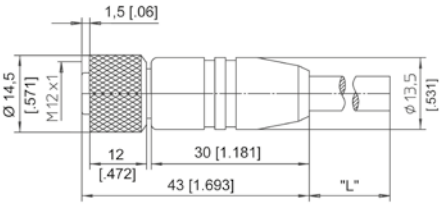
Order code:

CONN - CONIN - 12F - G



Connector/bus cable for WS® position sensors
5 pin M12
CAN bus/DeviceNet

The 5-lead shielded cable is supplied with a female 5-pin M12 connector at one end and a male 5-pin M12 connector at the other end. Available lengths are 0.3 m, 2 m, 5 m and 10 m.



Order code:

KAB - XM - M12/5F/G - M12/5M/G - CAN

IP69K: **KAB - XM - M12/5F/G/69K - M12/5M/G/69K - CAN**

Length in m

T-piece for bus cable
5 pin M12
CAN bus/DeviceNet

Order code:

KAB - TCONN - M12/5M - 2M12/5F - CAN

Terminating resistance
5 pin M12
CAN bus/DeviceNet

Order code:

KAB - RTERM - M12/5M/G - CAN