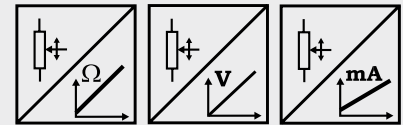


POSIWIRE® WS100M Analog Output



Sensor for hostile environments and offshore applications

- Protection class IP68/IP69K
- Measurement ranges 0 ... 2000 mm to 0 ... 10000 mm
- Analog output



Specifications	Outputs	Potentiometer 1 kΩ Voltage 0 ... 10 V Current 4 ... 20 mA, 2 or 3 wire
	Resolution	Essentially infinite
	Linearity	Up to ±0.05 % f. s.
	Sensing device	Hybrid precision potentiometer
	Material	Stainless steel; cable: stainless steel
	Protection class	IP68/IP69K
	Connection	Cable output, standard length 2 m
	EMC, temperature	Refer to output specification

Order code WS100M

WS100M - [] - [] - [] - [] - []

Model name

Measurement range (in mm)

2000 / 3500 / 7500 / 10000

Outputs

R1K = Potentiometer 1 kΩ
10V = 0 ... 10 V signal conditioner
420A = 4 ... 20 mA signal conditioner (2 wire)
420T = 4 ... 20 mA signal conditioner (3 wire)

Linearity

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

Cable fixing

M4VA = M4 cable fixing

Connection

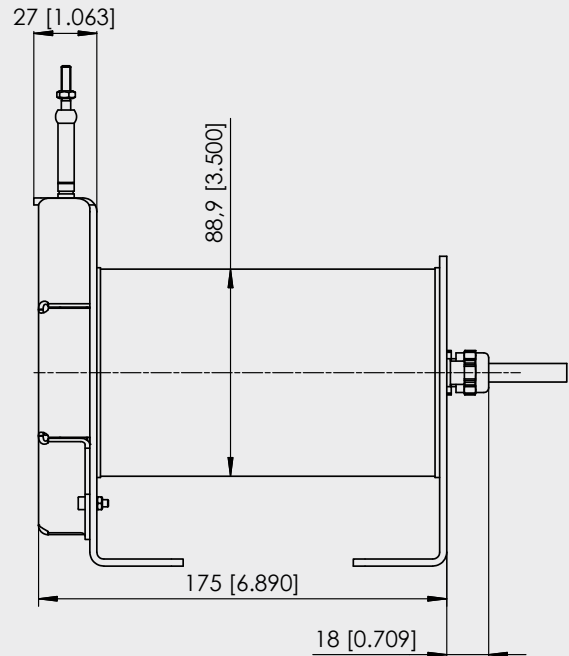
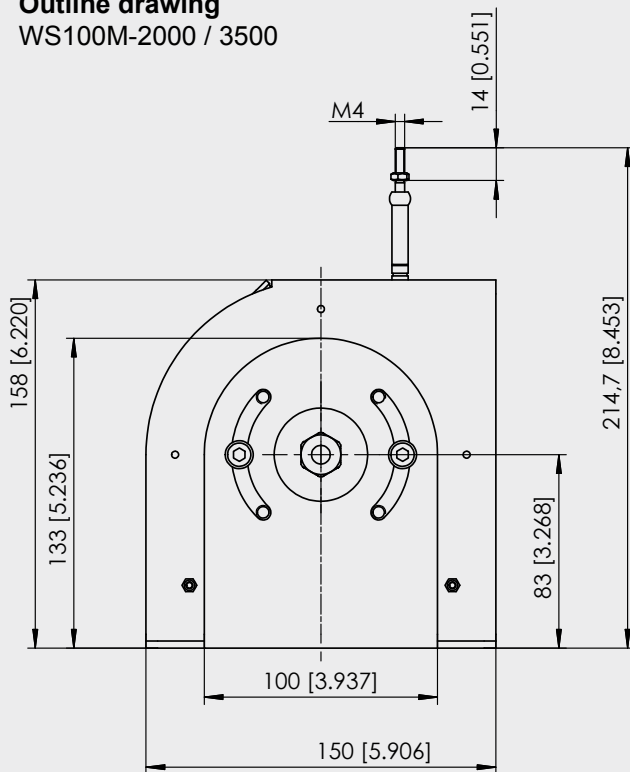
KAB2M = Cable output, standard length 2 m

Order example: WS100M - 7500 - 420T - L10 - M4VA - KAB2M

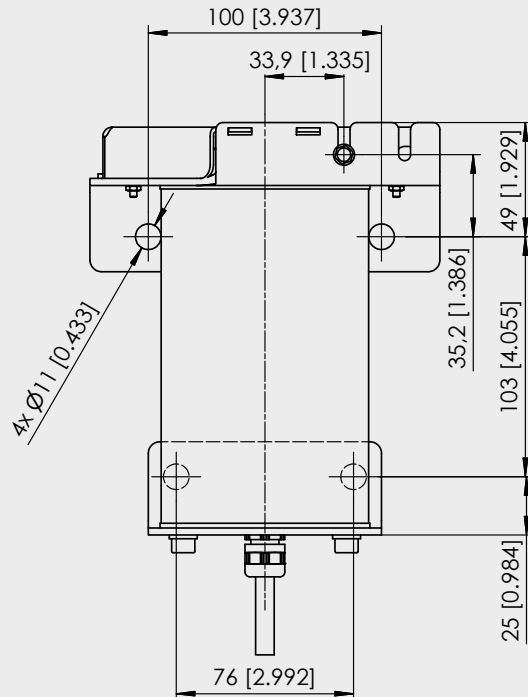
POSIWIRE®
WS100M
Analog Output



Outline drawing
 WS100M-2000 / 3500

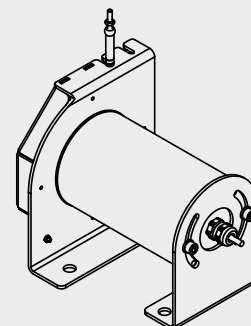
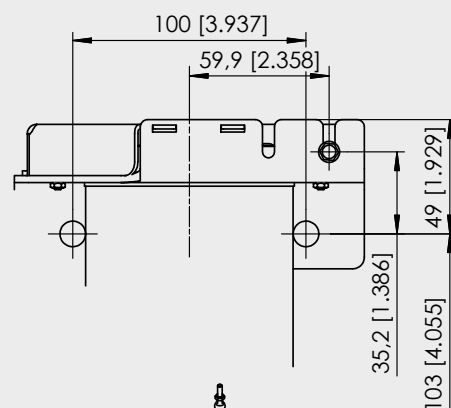


Measurement range 2000 mm



Dimensions in mm [inch]

Measurement range 3500 mm

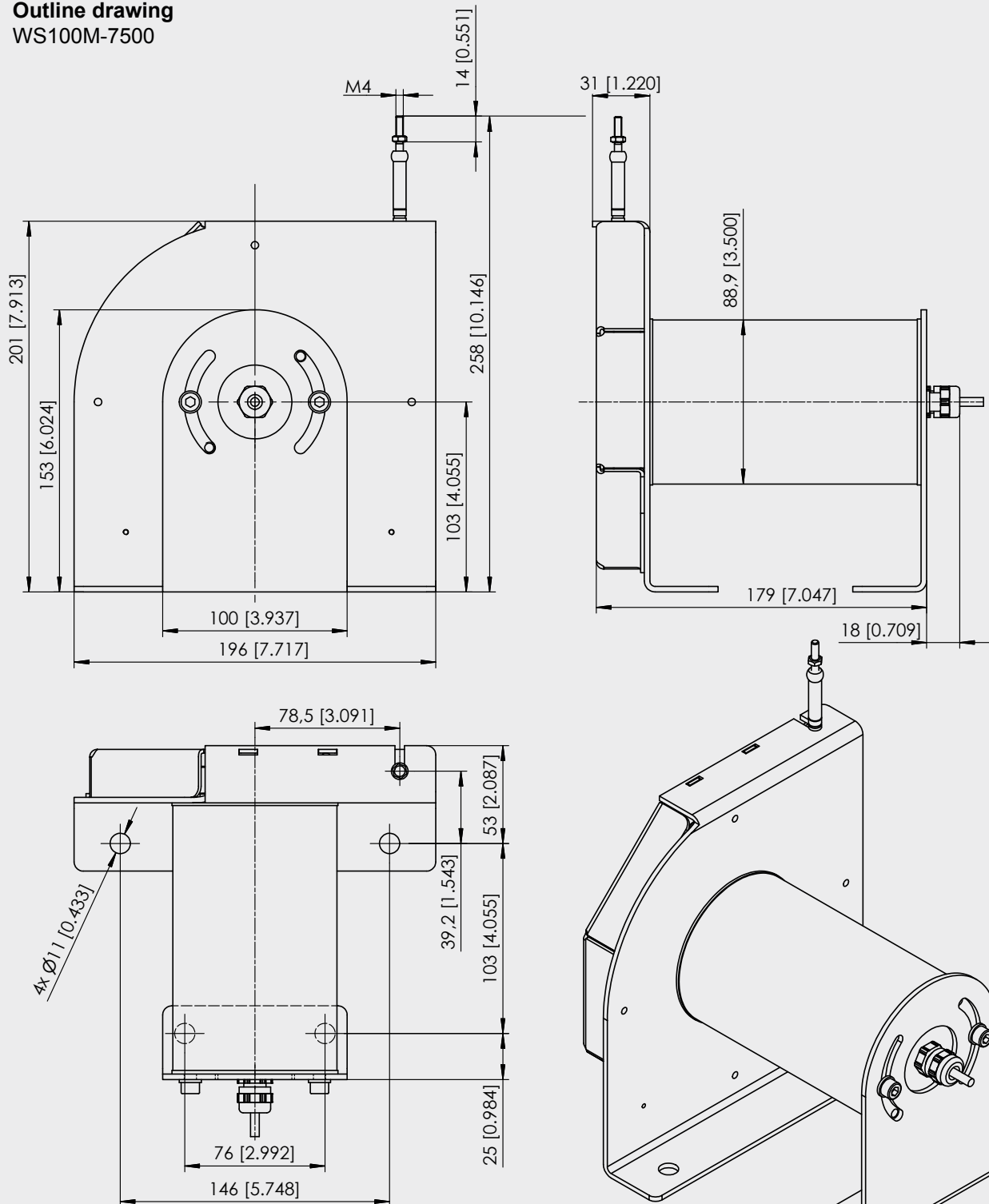


Dimensions informative only.
 For guaranteed dimensions consult factory.

POSIWIRE®
WS100M
Analog Output



Outline drawing
WS100M-7500



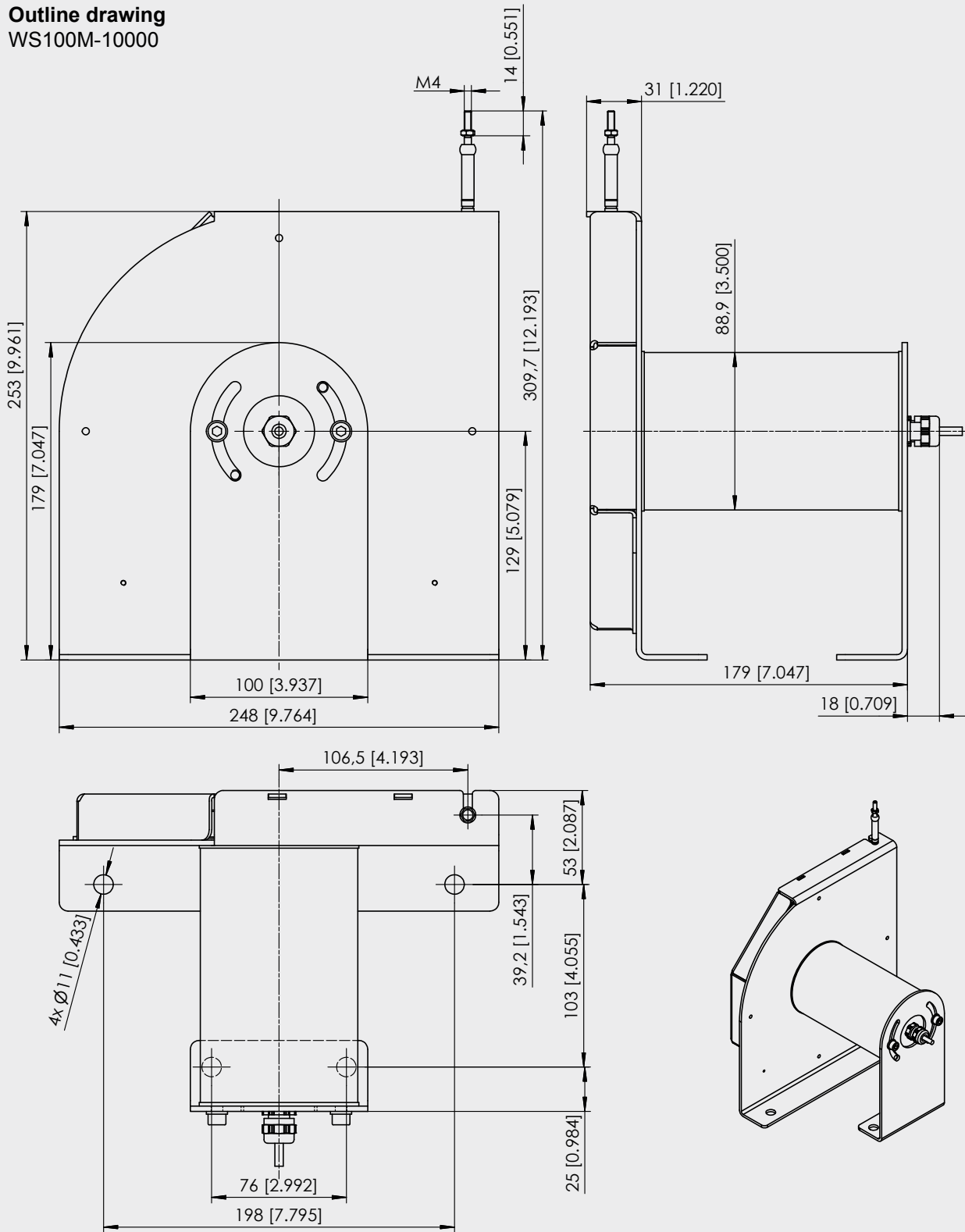
Dimensions in mm [inch]

Dimensions informative only.
 For guaranteed dimensions consult factory.

POSIWIRE®
WS100M
Analog Output



Outline drawing
 WS100M-10000



Dimensions in mm [inch]

Dimensions informative only.
 For guaranteed dimensions consult factory.

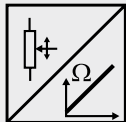
POSIWIRE®

R1K and 10V

Analog Output

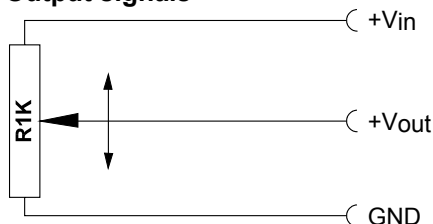


Voltage divider R1K Potentiometer



Excitation voltage	32 V DC max. at 1 kΩ (max. power 1 W)
Potentiometer impedance	1 kΩ ±10 %
Thermal coefficient	±25 x 10 ⁻⁶ / °C f.s.
Sensitivity	Depends on the measuring range, individual sensitivity of the sensor is specified on the label
Voltage divider utilization range	Approx. 3 % ... 97 %
Operating temperature	-20 ... +85 °C

Output signals



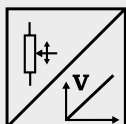
The metal wiper of the potentiometer must be protected against current load!

Electrical current flow impact on the wiper causes linearity errors and shortens the lifetime of the potentiometer.

More information:

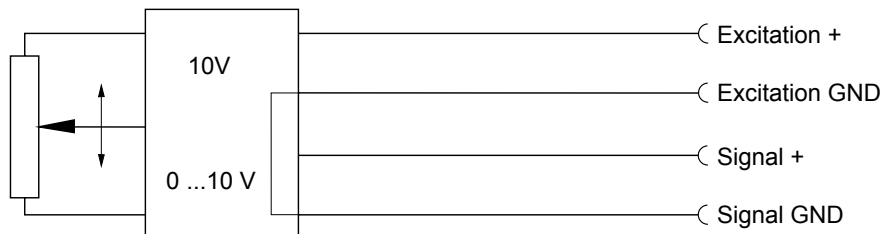
http://www.asm-sensor.com/asm/pdf/pro/ws_poti_technote_en.pdf

Signal conditioner 10V and 10V5 Voltage output



Excitation voltage	18 ... 27 V DC non stabilized
Excitation current	20 mA max.
Output voltage	10V: 0 ... 10 V DC; 10V5: 0.5 ... 10 V DC
Output current	2 mA max.
Output load	> 5 kΩ
Stability (temperature)	±50 x 10 ⁻⁶ / °C f.s.
Protection	Reverse polarity, short circuit
Output noise	0.5 mV _{RMS}
Operating temperature	-20 ... +85 °C
EMC	According EN 61326:2006

Output signals

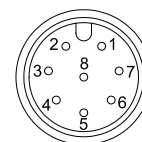


Signal wiring

Signal name	10V	Cable color	Connector pin no.
+Vin	Excitation +	White	1
GND	Excitation GND	Brown	2
+Vout	Signal +	Green	3
	Signal GND	Yellow	4

Connection

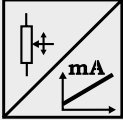
View to sensor
connector



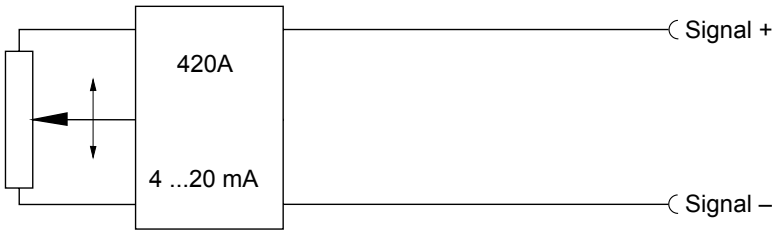
CONN-M12-8F

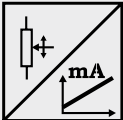
POSIWIRE® 420A and 420T Analog Output



Signal conditioner 420A Current output (2 wire) 	Excitation voltage	12 ... 27 V DC non stabilized, measured at the sensor terminals
	Excitation current	35 mA max.
	Output current	4 ... 20 mA equivalent for 0 ... 100 % range
	Stability (temperature)	$\pm 100 \times 10^{-6} / ^\circ\text{C}$ f.s.
	Protection	Reversed polarity, short circuit
	Output noise	0.5 mV _{RMS}
	Operating temperature	-20 ... +85 °C
	EMC	According to EN 61326:2006

Output signals



Signal conditioner 420T Current output (3 wire) 	Excitation voltage	18 ... 27 V DC non stabilized
	Excitation current	40 mA max.
	Load resistor	350 Ω max.
	Output current	4 ... 20 mA equivalent for 0 ... 100 % range
	Stability (temperature)	$\pm 50 \times 10^{-6} / ^\circ\text{C}$ f.s.
	Protection	Reverse polarity, short circuit
	Output noise	0.5 mV _{RMS}
	Operating temperature	-20 ... +85 °C
	EMC	According to EN 61326:2006

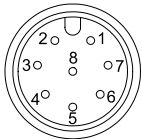
Output signals



Signal wiring	Signal name		Cable color	Connector pin no.
	420A	420T		
	Signal +	Excitation +		
	Signal -	Excitation GND		
		Signal +	Green	3

Connection

View to sensor
connector



CONN-M12-8F