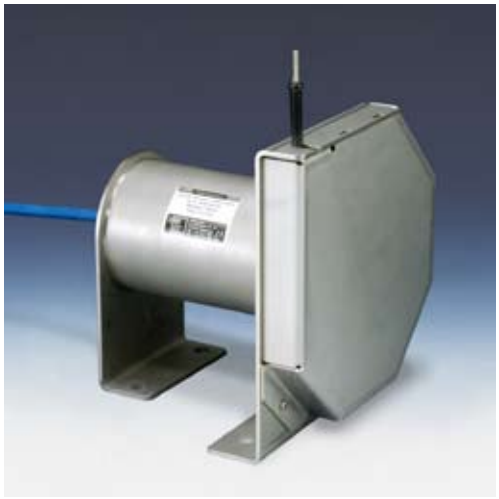
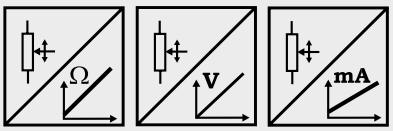
POSIWIRE®
WS100M
Analog Output



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)

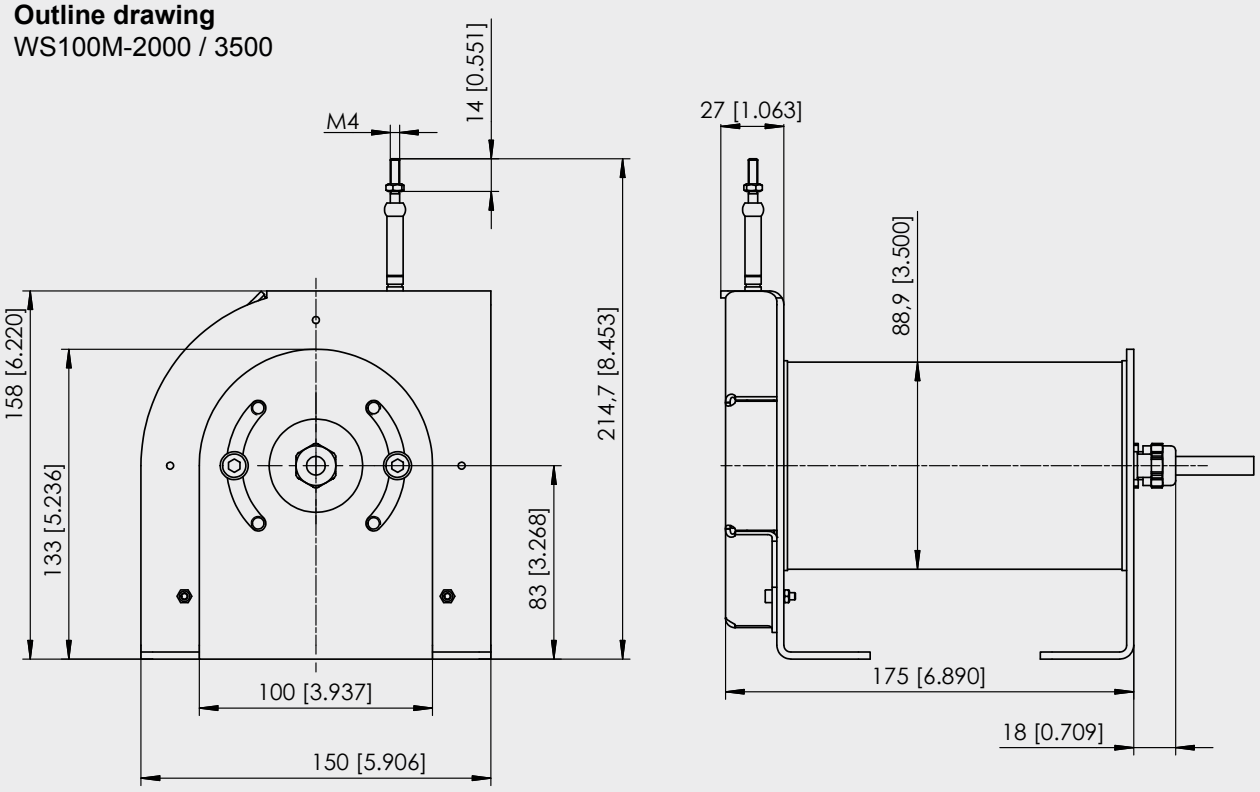
Linearity
L10 = ±0.10 % option: L05 = ±0.05 % L25 = ±0.25 %

Cable fixing
M4VA = M4 cable fixing

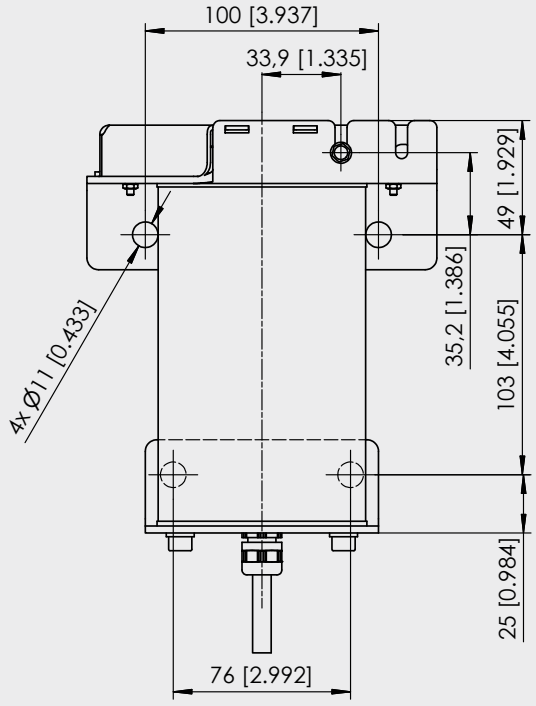
Connection
KAB2M = Cable output, standard length 2 m

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

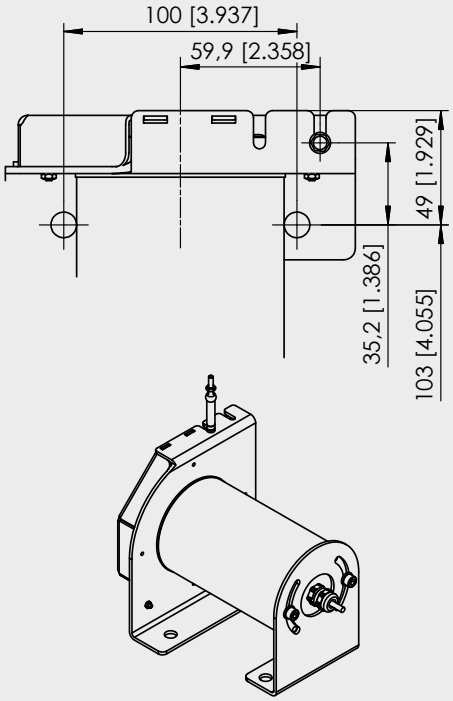
Outline drawing
WS100M-2000 / 3500



Measurement range 2000 mm



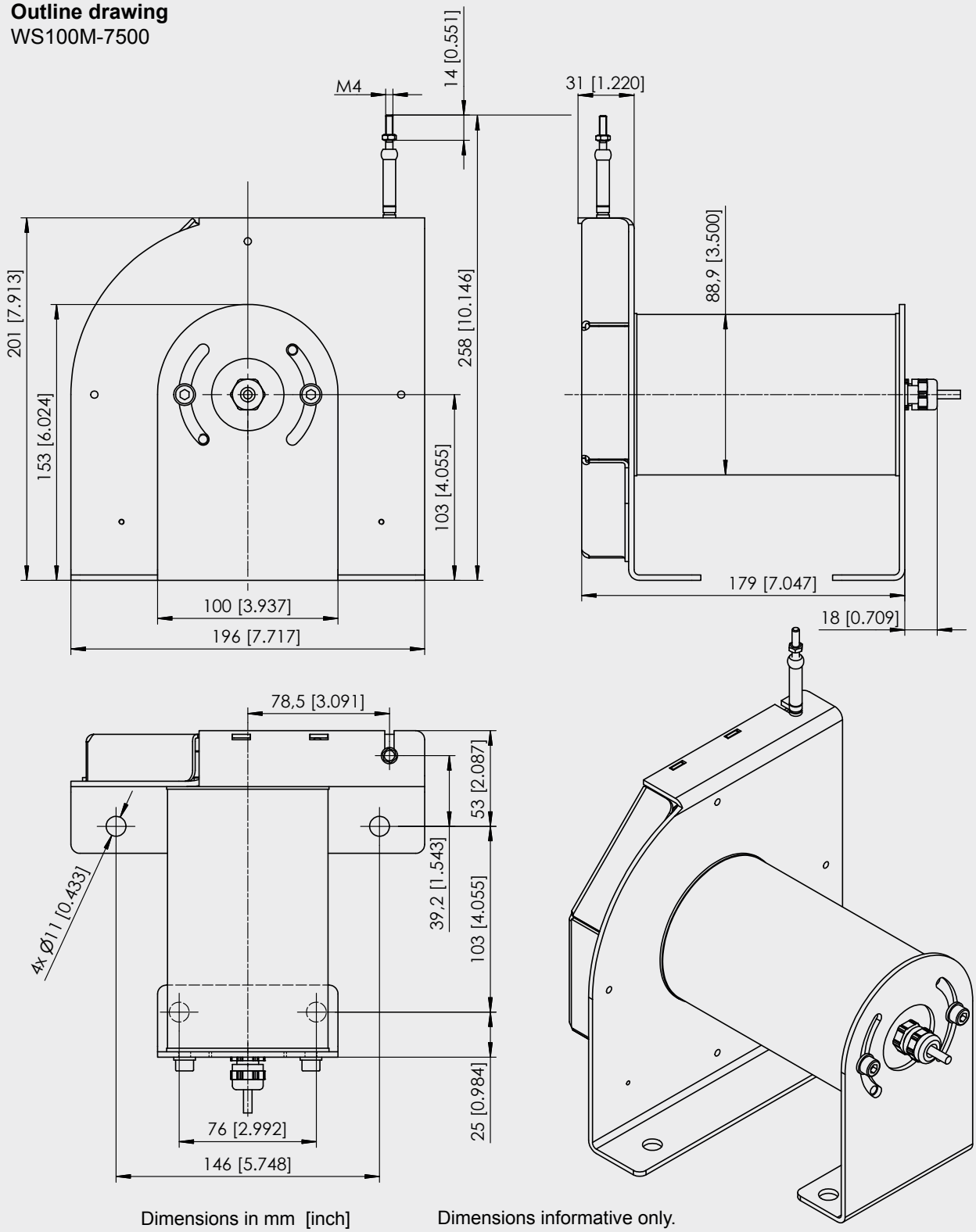
Measurement range 3500 mm



Dimensions in mm [inch]

Dimensions informative only.
For guaranteed dimensions consult factory.

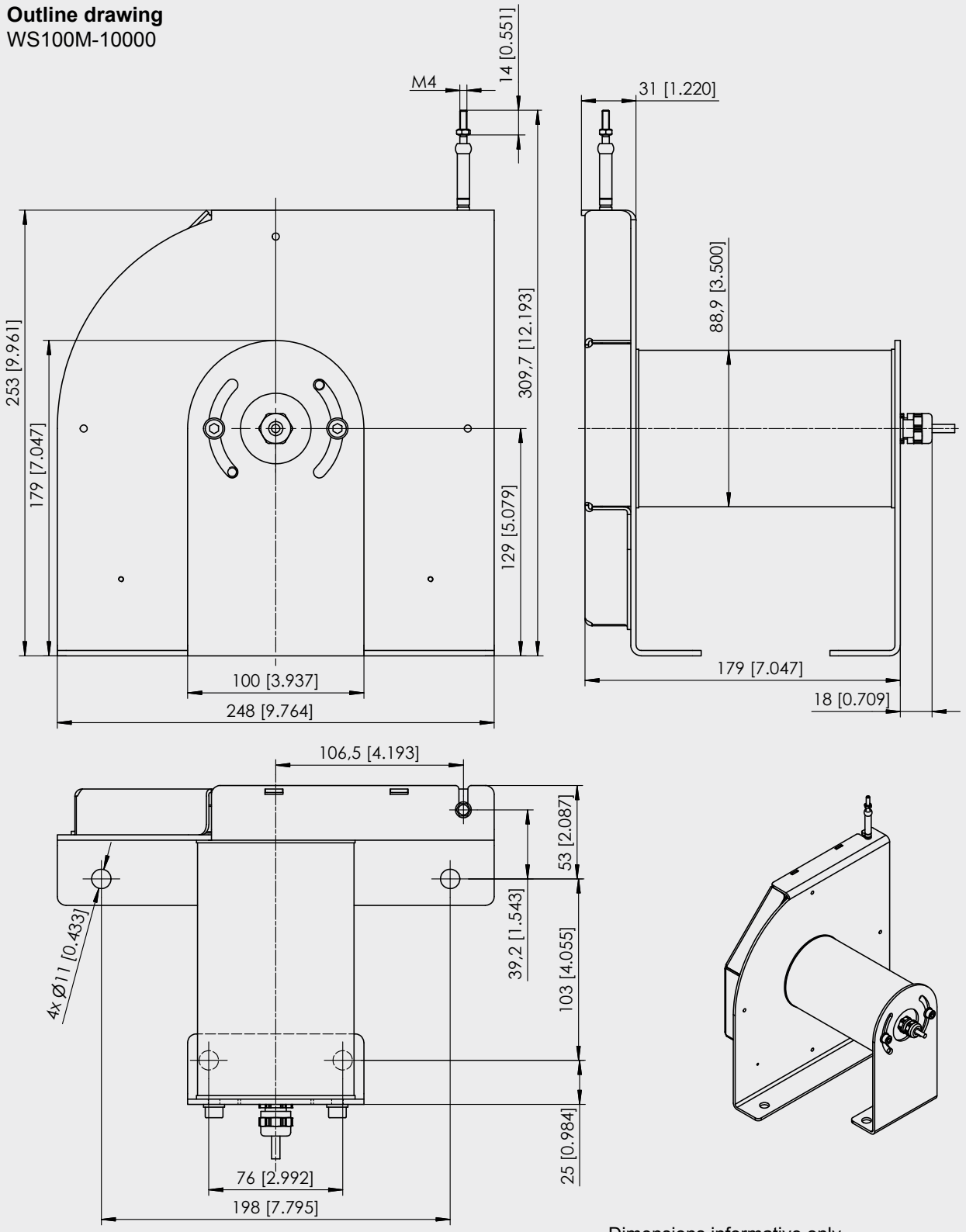
Outline drawing
WS100M-7500



Dimensions in mm [inch]

Dimensions informative only.
For guaranteed dimensions consult factory.

Outline drawing
WS100M-10000

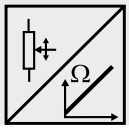


Dimensions in mm [inch]

Dimensions informative only.
For guaranteed dimensions consult factory.

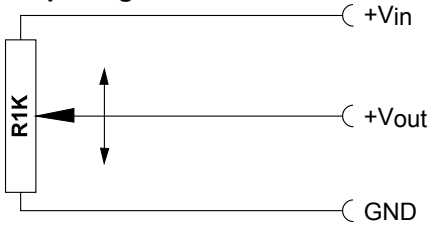
POSIWIRE®
R1K and 10V
Analog Output

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

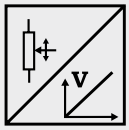


The metal wiper of the potentiometer must be protected against current load!

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

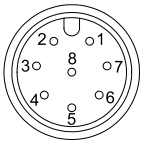
Output signals

Signal wiring

Signal name R1K	10V	Cable color	Connector pin no.
$+V_{in}$	Excitation + +	White	1
GND	Excitation GND	Brown	2
$+V_{out}$	Signal +	Green	3
	Signal GND	Yellow	4

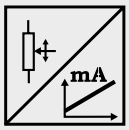
Connection

View to sensor connector

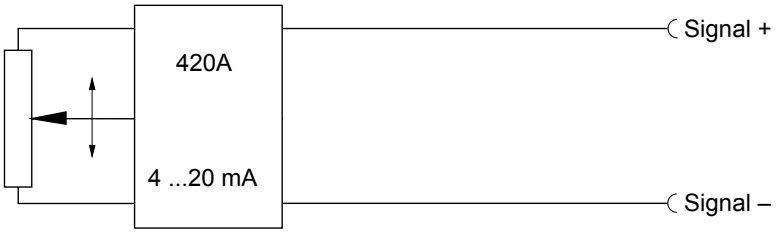


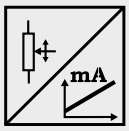
CONN-M12-8F

POSIWIRE®
420A and 420T
Analog Output

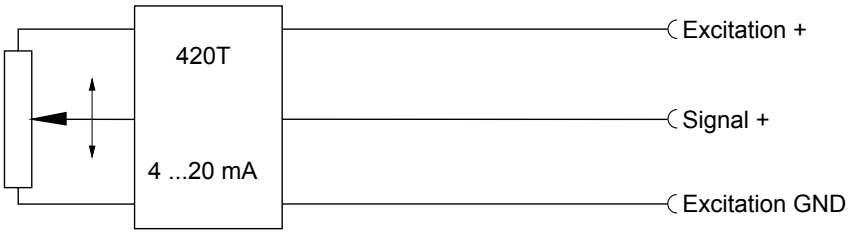
Signal conditioner 420A Current output (2 wire) 	Excitation voltage	12 ... 27 V DC non stabilized, measured at the sensor terminals
	Excitation current	35 mA max.
	Output current	4 ... 20 mA equivalent for 0 ... 100 % range
	Stability (temperature)	±100 x 10^{-6} / °C f.s.
	Protection	Reversed polarity, 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)	±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 to EN 61326:2006

Output signals

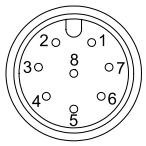


Signal wiring

Signal name 420A	420T	Cable color	Connector pin no.
Signal +	Excitation +	White	1
Signal –	Excitation GND	Brown	2
	Signal +	Green	3

Connection

View to sensor connector



CONN-M12-8F