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Magnetostrictive Position Sensor

PS20

www.yuttah.com

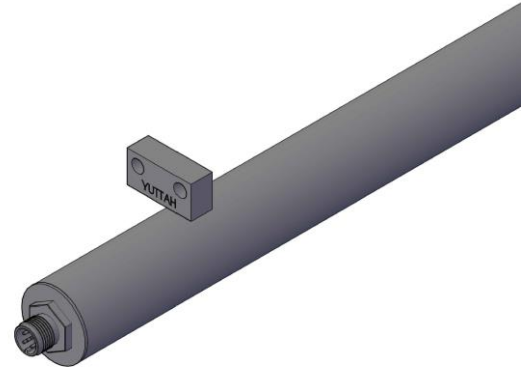
Magnetostrictive Position Sensor PS20

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The magnetostrictive position sensor PS20 is developed for linear position measurement in industrial applications. The round-profile sensor can be used for hydraulic and pneumatic cylinders and many other industrial applications.

Technology

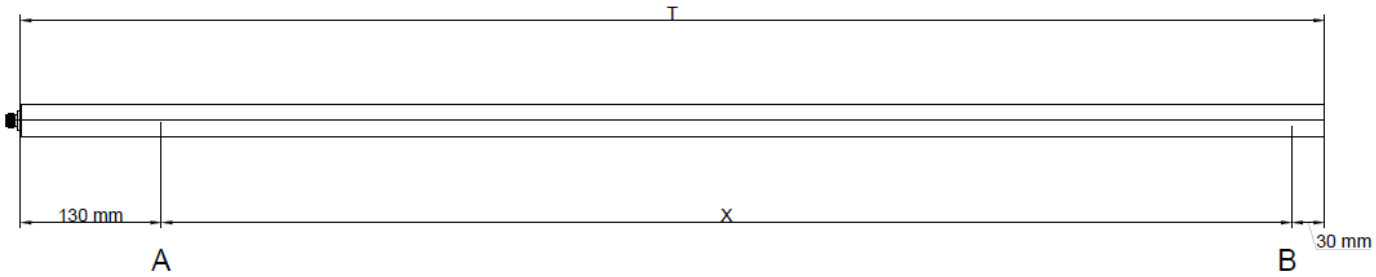
- High-precision linear position sensor
- Magnetostrictive sensor technology
- Measurement ranges up to 5.7 meters
- With an external contactless position magnet
- Available with Analog and Digital outputs
- Easy mounting and direct application



Specifications

Measurement ranges	All ranges up to 5.7 Meter
Output options	Analog Output: 4 - 20 mA or 20 - 4 mA Digital output: RS485 Modbus
Resolution	0.3 mm
Linearity	±1 mm
Supply Voltage	Flexible 12 – 32 VDC
Excitation Current	max. 30 mA
Protection Class	IP67 / IP69
Operating Temperature	-40 °C to +85 °C
Housing	Anodized Aluminum
Mounting	Mounting clamps
Weight	As per length
Shock	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks
Vibration	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles
EMC	DIN EN 61326-1:2013

Drawings

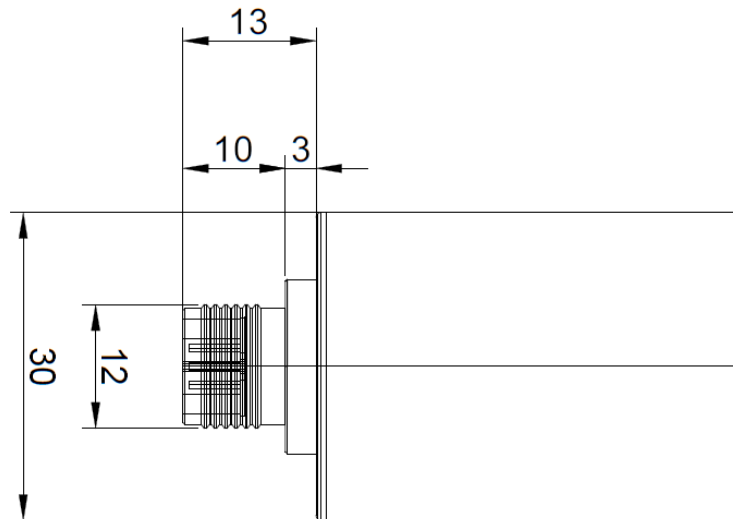
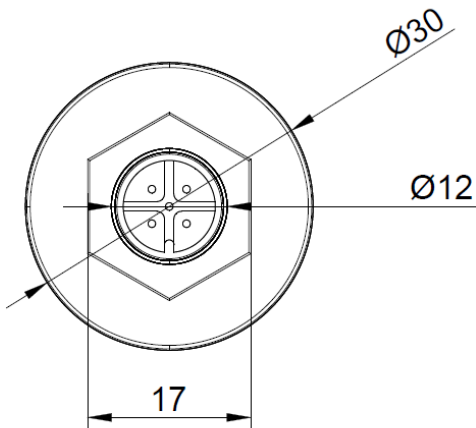


A: Start position

X: Measurement range (up to 5700mm)

B: End position

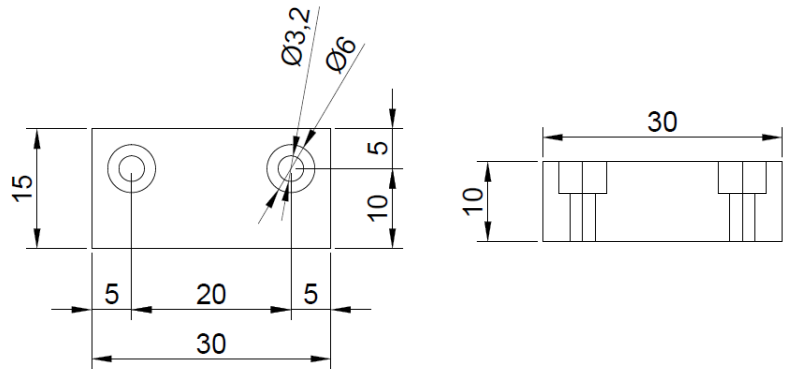
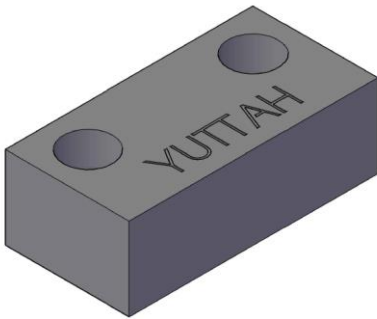
T: Total length



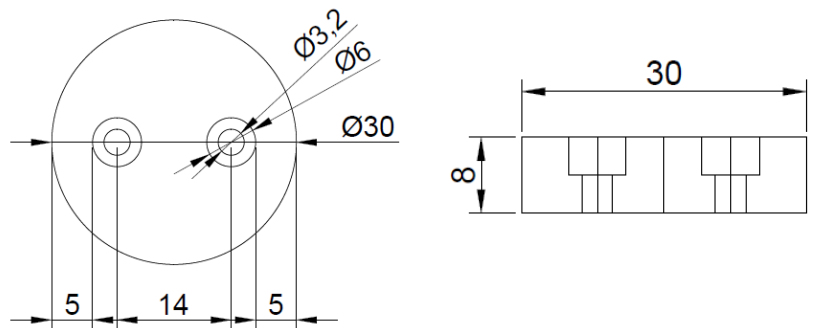
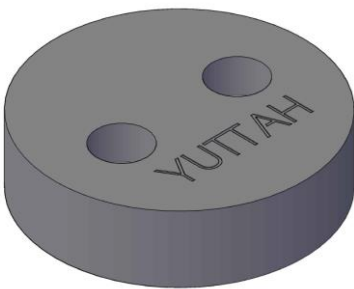
Dimensions in mm

Position Magnet Options

PMAG1



PMAG3



- Customer customized magnets available on request.
- Dimensions in mm.

Order Codes / Analog Output

PS20 - 2 - 3 - 4

1

Model

PS20

2

Supply Voltage

SV1: Flexible 12 – 32 VDC
SV2: 24 VDC (+/- 5%)

3

Output

A1: 4 – 20 mA
A2: 20 – 4 mA

4

Measurement range

X mm (up to 5700 mm)

Example: PS20 - SV1 - A1 - 2000

Order Codes / Digital Output

PS20 - 2 - 3 - 4

1

Model

PS20

2

Supply Voltage

SV1: Flexible 12 – 32 VDC
SV2: 24 VDC (+/- 5%)

3

Output

RS485 Modbus

4

Measurement range

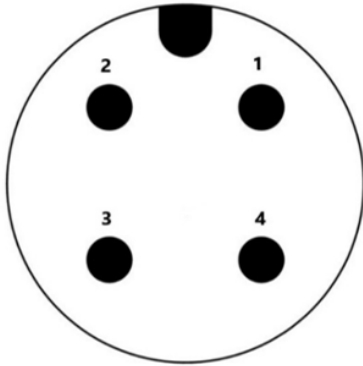
X mm (up to 5700 mm)

Example: PS20 - SV1 - RS485/M - 2000

PINOUT

Analog Output

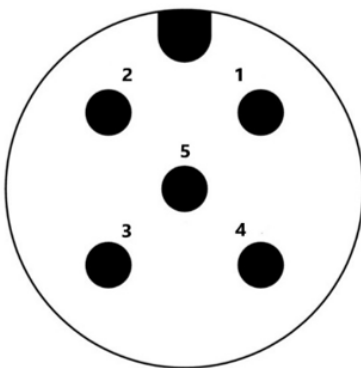
M12 male connector, 4 pin Connector pin no. Output signals



1	Signal -
2	Do not connect
3	Signal +
4	Do not connect

RS485 Modbus Output

M12 Male connector, 5 pin Connector pin no. Output signals



1	GND
2	Do not connect
3	+V (excitation voltage)
4	TXD / D- / B
5	RXD / D+ / A

Advantages

- High precision
- Compact and robust
- High resistance against shocks and vibrations
- High protection class
- Non-contact technology
- Wear-free and maintenance-free
- Long lifetime
- Easy mounting and direct application
- Design flexibility

Applications

- Hydraulic cylinders
- Pneumatic cylinders
- Liquid/Water level (using a float magnet)
- Industrial Applications
- Industrial Vehicles
- Communal Vehicles
- Material Handling
- Forest and Agriculture Machines
- Heavy duty applications
- Power and Energy
- Other Applications

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YUTTAH is a leading manufacturer of sensors, located in the United Arab Emirates. Our main product lines are: Position Sensors, Angle Sensors, Inclination Sensors, Acceleration Sensors, Vibration Sensors, Temperature Sensors, Pressure Sensors and Weight Sensors.

It is our main goal to help our customers to fulfil their needs. Our quality products are designed flexible to meet the application requirements of our customers. Our mission is to help our customers in the engineering phase to reach the wished results by providing customer customized sensor solutions. Our team is highly excited to help you in the stages of your development as well as providing a lifetime support. The combination of our know-how, quality products, flexible customized solutions, extensive lifetime support, and our experienced team is the right solution for you.

