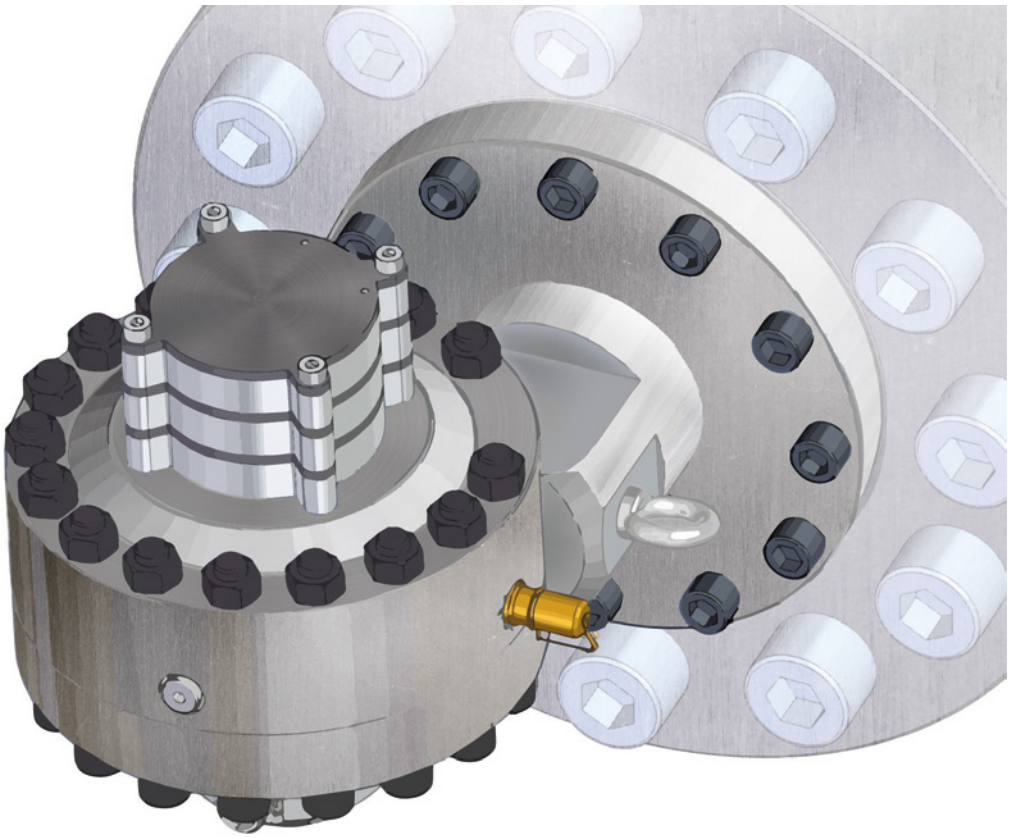
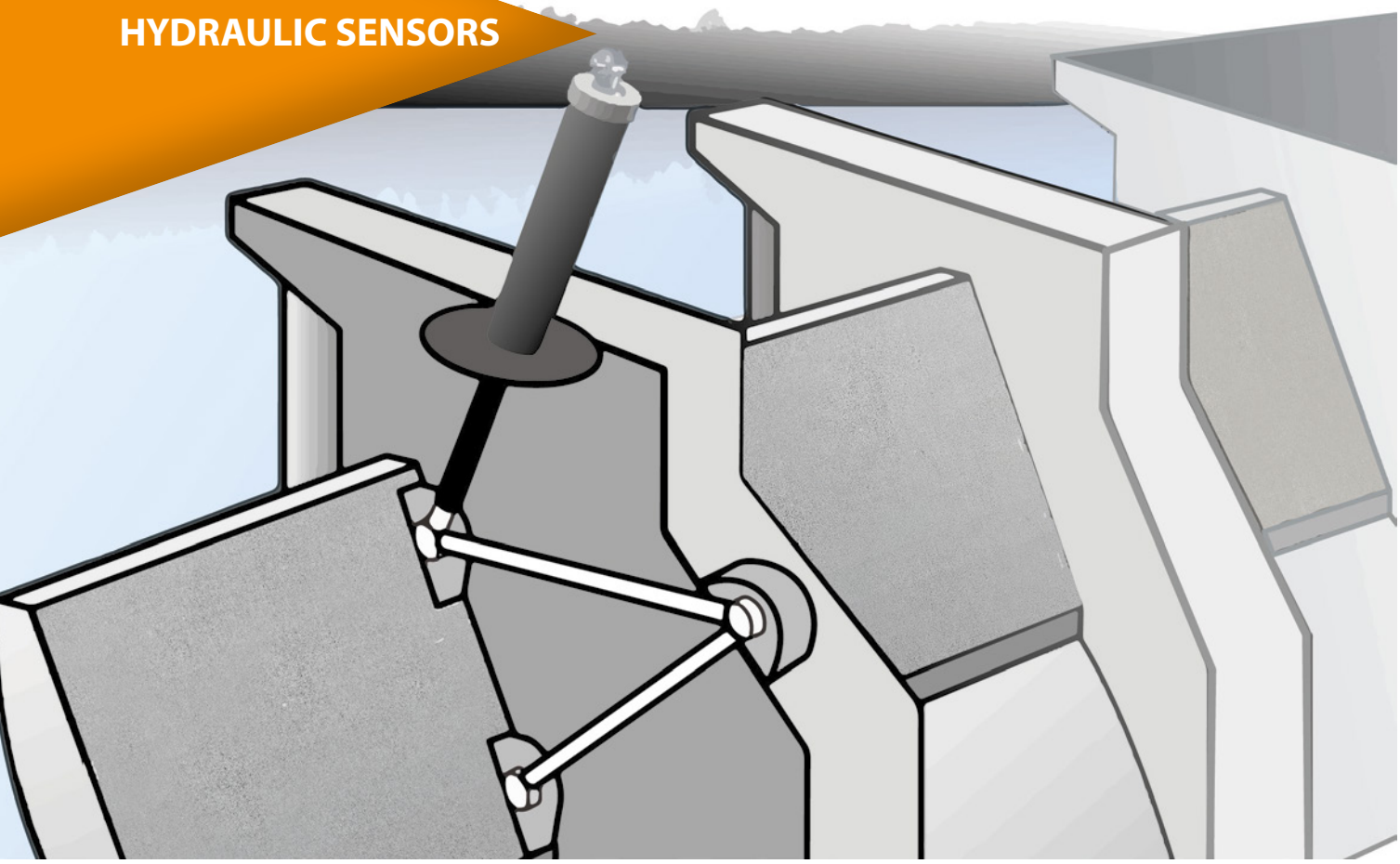
WayCon
Positionsmesstechnik

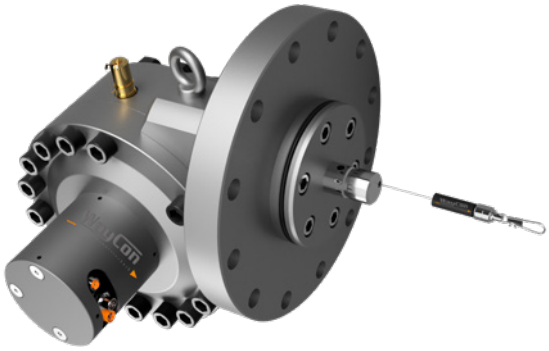


HYDRAULIC SENSORS



Powerful sensors to meet growing demands

Hydraulic Draw Wire Sensor SX300



Features

- Flange-connectible sensor for large, oil-filled hydraulic cylinders
- Housing made from quenched and tempered steel 42CrMo4
- V2A measuring cable
- Operating pressure up to 300 bar
- Simple installation without central piston bore
- Seal with the cylinder by means of piston seal (alternatively, rod seal)
- Measuring element (digital encoder) outside of the pressure area
- Flexible selection of digital encoder depending on customer requirements (e. g. ATEX)

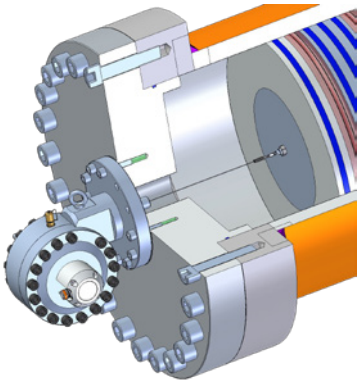
Introduction

With the SX300, WayCon has designed an extremely robust draw wire sensor especially for stroke measurement in hydraulic and telescopic cylinders. With a measuring range of up to 15 metre, the SX300 is ideal for use in "large applications", such as for stroke measurement in hydraulic weir gates or synchronous monitoring of parallel cylinder arrangements.

Technical Data

SERIES ▶ CHARACTERISTICS ▼	SX300
Measurement range max.	15 m
Medium in cylinder	Hydraulic oil
Linearity max. [1]	±0.05 % (depending on the encoder)
Sensor element	digital encoder
Operating pressure max.	300 bar
Test pressure	400 bar
Displacement speed	maximum 2 m/s (in air) [2]
Operating temperature	-20...+70 °C

[1] based on the measurement range
[2] identified laboratory value without hydraulic fluid



Description

The SX300 is flanged directly onto the front of the cylinder via the pressure-proof housing. The measuring cable made of stainless steel is simply attached to the piston and kept permanently taut by a spring in the sensor. The sensor element, a digital encoder, is located outside of the pressure area and provides information on the position of the piston to a high degree of accuracy and resolution. Digital absolute and incremental formats are available as output signals of the encoder. Of course, every SX300 is subjected to a pressure test before delivery and is sent with a corresponding certificate.

Linear Potentiometer LMI

Features

- Contactless, low-wear measuring principle
- Stainless-steel housing
- For operating pressures up to a maximum of 250 bar
- Attachment via a plug-in or threaded flange
- Very high resolution and accuracy

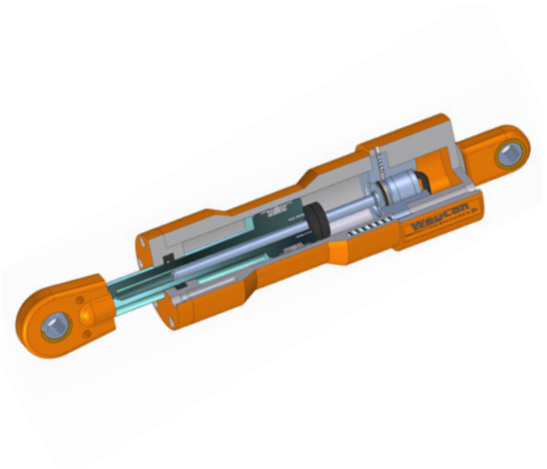
Introduction

Especially when it comes to stroke measurement in smaller cylinders, linear potentiometers in a bar construction offer the optimum solution. The sensors are mounted on the inside of the cylinder in the pressure area and are thus protected from any contamination and environmental influences.

Technical Data

SERIES ► CHARACTERISTICS ▼	LMI12	LMI12-SL / LMI12-SE
Measurement range max.	1000 mm	
Linearity max.[1)]	±0.05 %	±0.35 %
Resolution max.	limited by noise	
Output analog	potentiometer	potentiometer, 4...20 mA
Output digital	-	
Operating pressure max.	250 bar	
Displacement speed	<5 m/s	
Operating temperature	-30...+100 °C	
Rod diameter	16 mm	12.7 mm

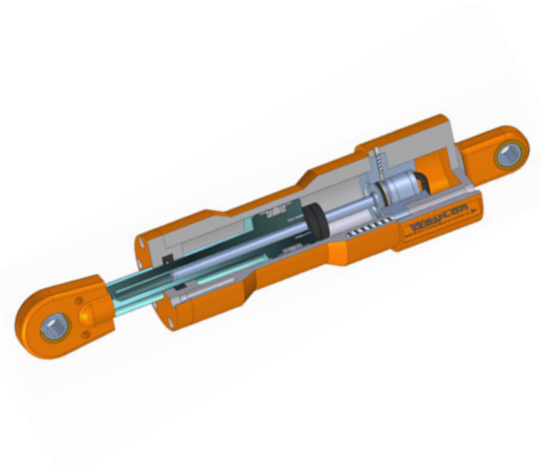
[1)] based on the measurement range



Magnetostrictive Transducers MAZ and MSB

Introduction

Especially when it comes to stroke measurement in smaller cylinders, linear potentiometers and magnetostrictive transducers in a bar construction offer the optimum solution. The sensors are mounted on the inside of the cylinder in the pressure area and are thus protected from any contamination and environmental influences. The contactless measuring principle guarantees a virtually unlimited lifetime.



Features

- ▶ Contactless, low-wear measuring principle
- ▶ Stainless-steel housing
- ▶ For operating pressures up to a maximum of 350 bar
- ▶ Attachment via a plug-in or threaded flange
- ▶ Very high resolution and accuracy

Technical Data

SERIES ▶ CHARACTERISTICS ▼	MAZ	MSB
Measurement range max.	2500 mm	
Linearity max.[1)]	≤±0.02 % (min. ±0.06 mm)	
Resolution max.	5 µm	10 µm
Output analog	0...10 V, 4...20 mA, 0...20 mA	0.1...5.1/10.1 V, 4...20 mA
Output digital	SSI	-
Operating pressure max.	350 bar	
Displacement speed	<10 m/s	
Operating temperature	-30...+90 °C	
Rod diameter	10 mm	

[1)] based on the measurement range

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