

IMPRESS

SENSORS & SYSTEMS

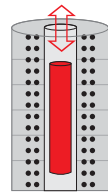
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Pressure - Temperature - Level - Flow - Analytical - Control - Indication - Data logging

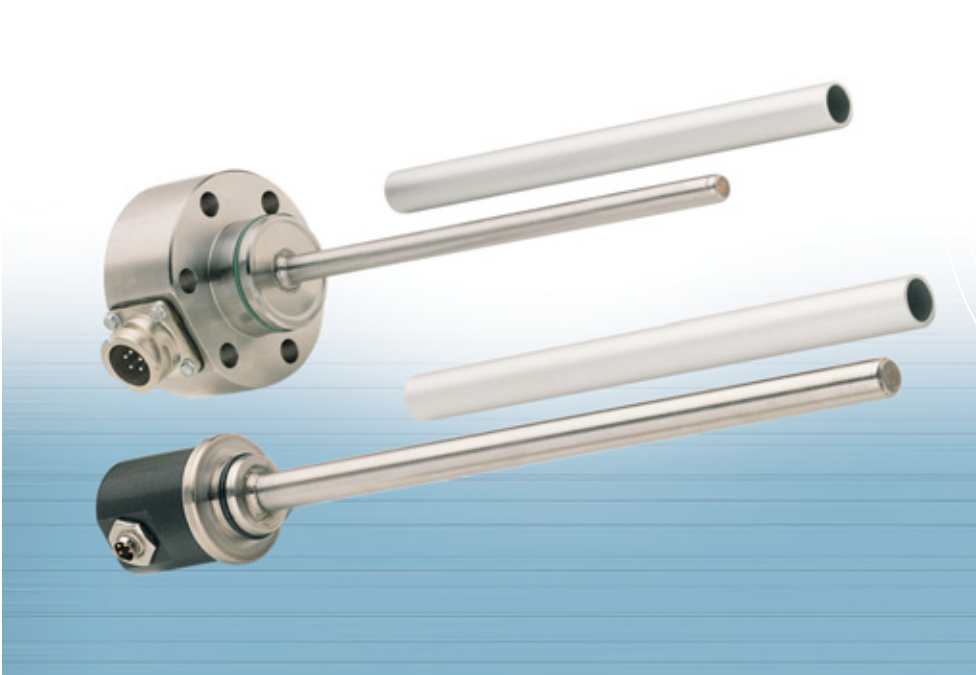
More Precision.

induSENSOR

Linear inductive displacement sensors



EDS series: long-stroke sensors for hydraulics & pneumatics



Measurement ranges 100 ... 630 mm
Output signal 4 ... 20 mA
Integrated microelectronics
High pressure resistance
Oil resistant and maintenance-free
Short offset ranges

The sensor elements of the EDS series are protected by a pressure resistant stainless steel housing. The sensor electronics and signal conditioning are completely integrated in a sensor flange.

As a target an aluminum sleeve is used which is integrated into the piston rod and is passed without making contact and wear-free over the sensor rod.

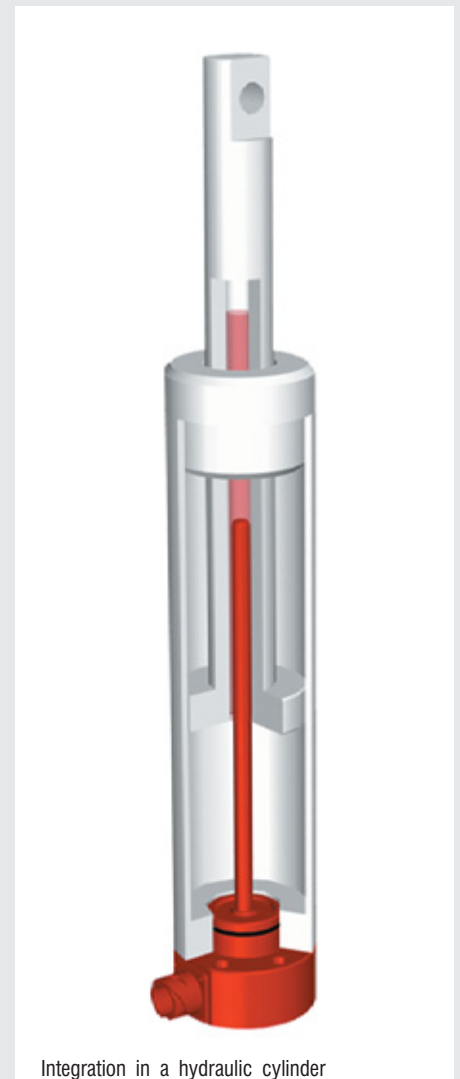
Due to the use of the eddy current principle, no permanent magnets need to be mounted inside the cylinder.

Due to the rugged design of the long-stroke sensors of the EDS series, these sensor systems have proven themselves, not only through the integration in hydraulic and pneumatic cylinders, but also especially under harsh industrial conditions.

Typical applications

Long-stroke sensors in the EDS series are designed for industrial use in hydraulic and pneumatic cylinders for the displacement and position measurement of pistons or valves, e.g. for the measurement of

- displacement, distance, position, gap
- deflection
- movement, stroke
- filling level, immersion depth, spring travel

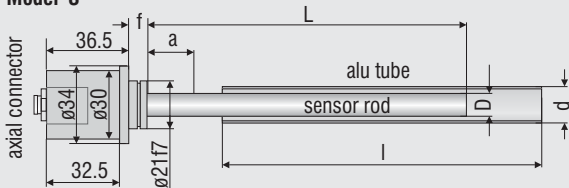


Integration in a hydraulic cylinder

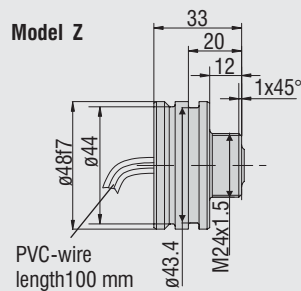
Model		EDS-100	EDS-160	EDS-200	EDS-220	EDS-250	EDS-260	EDS-300	EDS-370	EDS-400	EDS-630
Connection		S, F	S, F	S	Z	S, F	Z	S, F, Z	Z	S, F, Z	S, F
Measuring range	mm	100	160	200	220	250	260	300	370	400	630
Linearity	$\pm 0.3\%$ FSO	mm	0.3	0.48	0.6	0.66	0.75	0.78	0.9	1.1	1.89
Resolution	0.05 % FSO	mm	0.05	0.08	0.1	0.11	0.125	0.13	0.15	0.18	0.315
Temperature range		-40 °C ... +85 °C									
Temperature stability		± 200 ppm / °C									
Frequency response (-3 dB)		150 Hz									
Output		4 - 20 mA									
Output load		≤ 500 Ohm									
Power supply		18 - 30 VDC									
Current consumption		max. 40 mA									
Connector	model S	4-pin connector (sensor cable as an option) options radial or axial output									
	model F	5-pin radial bayonet-connector with mating plug									
	model Z	wire axial									
Pressure resistance		450 bar (sensor rod, flange)									
Protection class		IP 67									
Electromagnetic compatibility (EMC)		EN 50 081-2 spurious emission EN 50 082-2 interference immunity									
Shock ¹	IEC 68-2-29 IEC 68-2-27	40 g, 3000 shocks / axis 100 g radial, 300 g axial									
Vibration	IEC 68-2-6	5 Hz ... 44 Hz ± 2.5 mm 44 Hz ... 500 Hz ± 23 g									
Material		V4A-Steel 1.4571									

FSO = Full Scale Output 1) Half sinusoid 6 ms

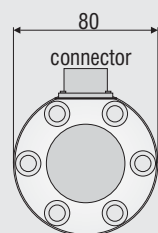
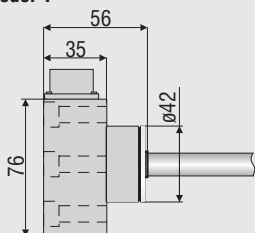
Model S



Model Z



Model F



6 mounting holes $\varnothing 9$ mm
on pitch circle $\varnothing 63$ mm

meas. range	sensor rod		alu tube		offset	flange
	L	D	l	d	a	f
100	140	10	140	16	20	8
160	200	10	200	16	20	8
200	240	10	240	16	20	8
220	250	10	252	16	20	12
250	290	10	290	16	20	8
260	290	10	292	16	20	12
300	340	10	340	16	20	8
370	464	12	450	18	15	12
400	450	12	450	18*	25	12
630	680	12	680	18*	25	12

* model F: d=26 mm

More Precision.

Sensors and systems

for displacement, position and dimension

Sensors and measurement devices

for non-contact temperature measurement

Measurement systems

for online/offline quality control