

D-Series Analog

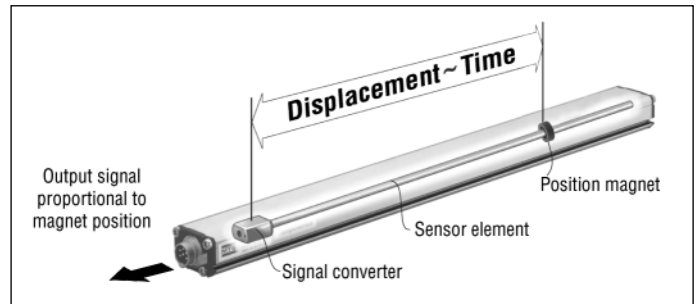
NEW!

Temposonics D
Measuring range 50 - 1500 mm



Non-contact ideal for Plastic Machinery

- Linear, Absolute Measurement
- Contactless Sensing with Highest Durability
- Linearity better 0,01 %
- Repeatability 0,005 %
- Direct Position Output: Analog 0-10 V
- Measuring range 50 - 1500 mm



Magnetostriction

The absolute **Temposonics®** linear position sensors are based on the MTS developed magnetostrictive measurement principle. That combines various magneto-mechanical effects and uses the physical height precise speed-measurement of an ultrasonic wave (torsion pulse in its sensor element) for position detecting. Sensor integrated signal processing transforms the measurements directly into market standard outputs. The contactless principle - an external movable magnet marks the position - eliminates the wear, noise and erroneous signal problems and guarantees the best durability without any recalibration.

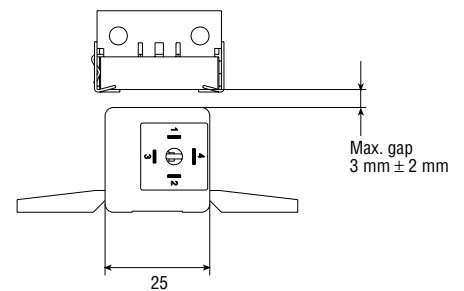
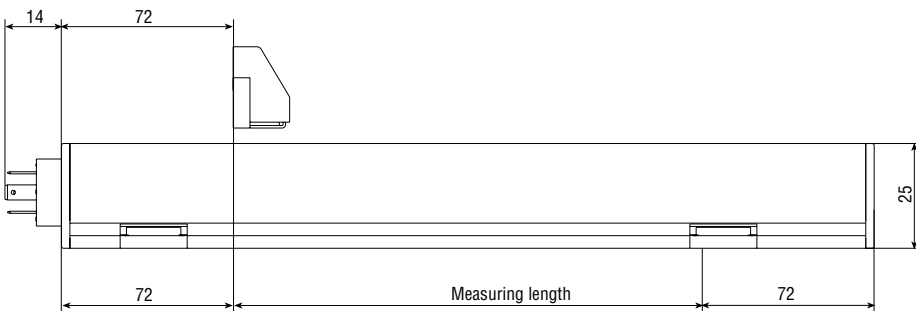
Form factor

Temposonics® are extremely robust sensors, ideal for continuous operation under harshest industrial conditions. The sensor is completely modular in mechanics and electronics design.

- A profile **sensor housing** protects the sensor element in which gives rise to the measurement signal.
- The **sensor head**, a solid diecast aluminum housing, accommodates the complete modular electronic interface with active signal conditioning. Double encapsulation ensures high operating safety and optimum EMC protection.
- The external **position transmitter** is a permanent magnet. It is fitted at the mobile machine part, taken over the sensing

Technical Data

Input	
Measured variable	Displacement
Measuring range	50 - 1500 mm
Output	
Analog	0 - 10 VDC or 10-0 VDC, Controller input resistance RL: > 5 kOhm
Accuracy	
Resolution	Infinite
Linearity, uncorrected	< ± 0,01 % F.S. (Minimum ± 90 µm)
Repeatability	< ± 0,005 % F.S.
Update frequency	> 1,5 kHz
Ripple	< 0,02 % F.S.
Operating condition	
Mounting position	Any
Magnet speed	Any
Operating temperature	-40° C ... +75° C
Dew point, humidity	90 % rel. humidity, no condensation
Ingress protection	IP67
Shock rating	50 g (Single hit) / IEC-Standard 68-2-27
Vibration test	5 g / 10 - 2000 Hz / IEC-Standard 68-2-6
EMV-Test	Electromagnetic emission EN 50081-1 Electromagnetic immunity EN 50082-2 EN 61000-4-2/3/4/6, Criteria A / CE qualified
Form factor / Material	
Sensor	Aluminum
Position magnet	Block magnet
Installation	
Mounting type	Adjustable mounting clamps
Electrical connection	
Connection type	Mechanical connector EN175301-803 / ISO-4400/6952
Input voltage	24 VDC (+20 % / -15 %)
Current consumption	70 mA, stroke length dependent
Ripple	< 1 % S-S
Electric strength	500 V (0 V ground to machine ground)
Polarity protection	up to -30 VDC
Overvoltage protection	up to 36 VDC



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