

Temposonics®

Absolute, Non-Contact Position Sensors

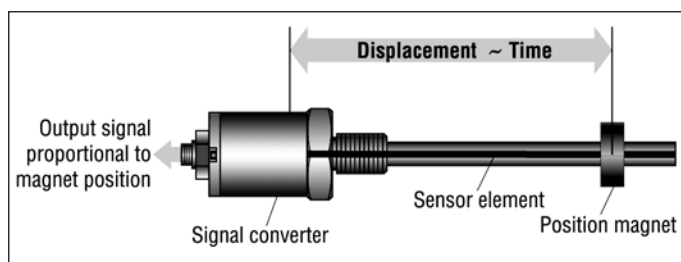
R-Series Rod Model RS

Temposonics®-RS
Measuring range 50 - 7600 mm



Position Sensor with IP69K Super Shield Housing

- Rugged Industrial Sensor
- Linear and Absolute Measurement
- Contactless Sensing with Highest Durability
- Sealed IP68 / IP69K



The extremely robust **Temposonics® RS** sensor with super shield housing ensures long-term linear position measurement in the harshest environments. Hermetically sealed with a housing completely made of stainless steel, it meets the requirements of protection modes IP68 and IP69K and are reliably shielded against corrosion and penetration of dirt and water.

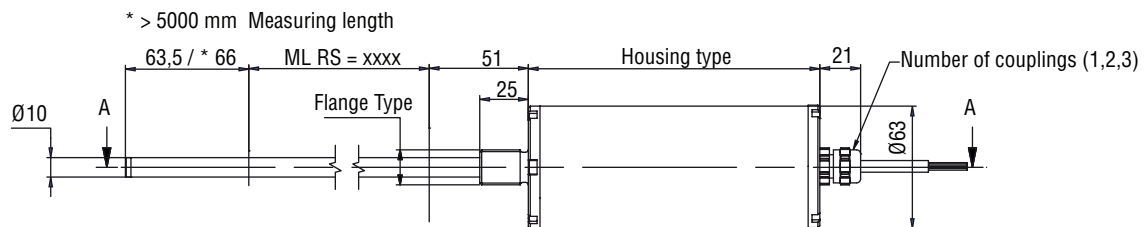
Due to non-contact measuring technology, sensor integration into a hermetically sealed housing is possible. A position magnet moves along the outside of the pressure-resistant sensor pipe and marks the position without mechanical contact. For level measurement, an optional float can be used. The modular sensor cartridge design enables the customer to choose the specific sensor output configurations to be installed within the super shield housing to best fit their application requirements. The measuring accuracy and all technical data correspond to the features of the sensor selected inside the housing. A wide choice of interfaces (Analog, Profibus, SSI, CANbus, DeviceNet, EtherCAT, POWERLINK) is available. Moreover, integration of ATEX-certified and intrinsically safe sensors is possible with the protective housing.

Temposonics®-RS sensors are made to fit Temposonics® R-Series with analog and digital outputs. Fixed cable and connector versions can be used on the sensor side. When using standard sensors in this housing, you get a cost efficient solution for use in rugged applications. Several design combinations are available to fit your application: M18 or 3/4”UNF mounting flange thread, various housing length, and single, dual or triple cable glands.

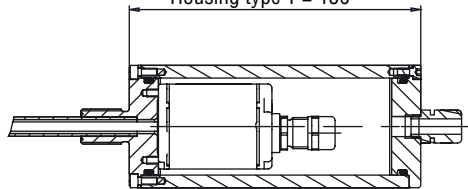
Technical Data (depending on selected interface)

Input	
Measuring range	50 - 7.600 mm
Output	
Interfaces	SSI
Operating conditions	
Dew point, humidity	100% rel. humidity
Protection	IP68 / IP69K
Design, Material	
Sensor head	303/304 Stainless steel 316L (1.4404) on request
Sensor stroke	303/304 (1.4305) Stainless steel 316L on request
Pressure rating	350 bar, 700 bar peak
Position magnet	Ring magnet or magnet float
Installation	
Mounting position	Any orientation
Torque moment	< 50 Nm
Rod	Threaded flange M18 x 1,5 or 3/4"-16 UNF-3A, Hex nut M18
Electrical connection	
Connection type	Integral cable pigtail termination

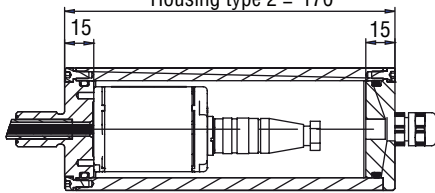
Info:
For detailed technical data and electrical connection for the outputs please see data sheets:
R-Series SSI.



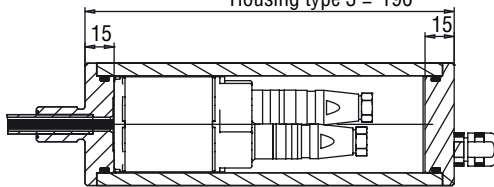
Type 1 Cable outlet
Housing type 1 = 150



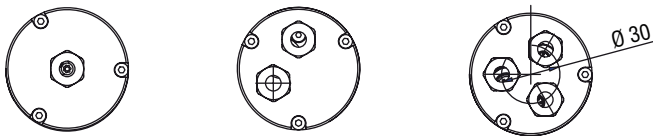
Type 2 Housing short
Housing type 2 = 170



Type 3 Housing long
Housing type 3 = 190



Lids according to the outputs.



Please use a standard strap wrench to mount the sensor.

Temposonics®

R

S

M

Model

RS - Super Shield Sensor

Design

M – Flange M18x1,5
S – Flange ¾“ – 16 UNF – 3A

Measuring range

0050...7600 mm
Standard: See chart

9

10

11

12

13

14

15

16

17

18

19

(9)-(11) Connection Type

P

=

Integral cable,polyurethane jacket with pigtail termination

Cable length:

Encode in meters if using metric stroke length

→

=

1 (01) to 30 (30) meters.

Cable Length Note:

MTS recommends the maximum integral cable length to be 10 meters (33 ft.). Cables greater than 10 m (33 ft.) in length are available, however, proper care must be taken during handling and installation.

(12) Input voltage

1

=

+24 Vdc (+20%, -15%)

(13)-(19) Output Type

Synchronous Serial Interface (SSI):

[13] S = SSI Type

[14] Data length

1 = 25 bits

2 = 24 bits

3 = 26 bits

[15] Output Format

B = Binary

G = Gray code

[16] Resolution

1 = 0.005 mm

2 = 0.01 mm

3 = 0.05 mm

4 = 0.1 mm

5 = 0.02 mm

6 = 0.002 mm

8 = 0.001 mm

9 = 0.0005 mm

[17] Filtering Performance

1 = Standard, no filter

[18] [19] Signal Options (scale orientation)

00 = Measuring direction forward, async

01 = Measuring direction reverse, async

02 = Measuring direction forward, sync1

05 = Measuring direction forward, bit-25 = Alarm, bit-26 = Parity even, (select data length 24 bits)

16 = Measuring direction forward, LCO

SYSTEM OPTION

K

Kxx

= Available on request (specify at time of order)