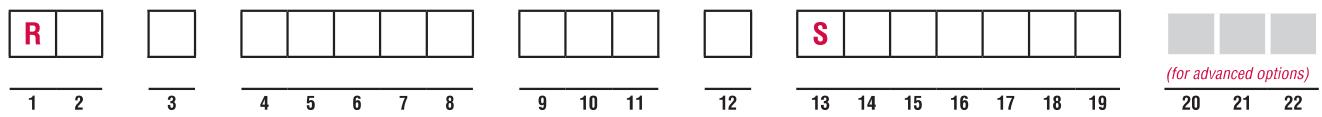


**R-Series Models RP and RH Sensors
How to Order**



SENSOR MODEL

RP = Profile style

RH = Hydraulic rod style

(for advanced options)

20 21 22

R 1-2

HOUSING STYLE

Model RP profile-style sensor (includes one magnet):

S = Captive-sliding magnet with ball joint at top (part no. 252182) **V** = Captive-sliding magnet with ball joint at front (part no. 252184)

M = Open-ring magnet (Part no. 251416-2)

Model RH rod-style sensor (magnet(s) must be ordered separately):

T = US customary threads, raised-faced flange and pressure tube, standard

U = Same as option 'T', except uses fluoroelastomer seals for the electronics housing

B = Sensor cartridge only (no flange and pressure tube, stroke length < 1830 mm (72 in.))

S = US customary threads, flat-faced flange and pressure tube, standard

H = Same as option 'S', except uses fluoroelastomer seals for the electronics housing

M = Metric threads, flat-faced flange and pressure tube, standard

V = Same as option 'M', except uses fluoroelastomer seals for the electronics housing

STROKE LENGTH

M = Millimeters
(Encode in 5 mm increments)

U = Inches and tenths
(Encode in 0.1 in. increments)

=

4-8

Stroke Length Notes:

1. Profile-style sensor (model RP) stroke range = 25 mm (1 in.) - 5080 mm. (200 in.)
2. Rod-style sensor (model RH) stroke range = 25 mm (1 in.) - 7620 mm (300 in.)

CONNECTION TYPE

=

9-11

Integral connector:

D70 = 7-pin DIN (M16), male, standard
MS0 = 10-Pin MS style, male

Integral cables:

P = Integral high-performance cable, orange jacket with pigtail termination
E = Integral cable, PVC jacket, pigtail termination, standard
F = Integral cable, black polyurethane jacket with pigtail termination

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.

Cable length:

Encode in feet if using US customary stroke length
Encode in meters if using metric stroke length

→ = 3 (03) to 98 (98) ft. or 1 (01) to 30 (30) meters.

INPUT VOLTAGE

=

12

1 = +24 Vdc (+20% - 15%)
A = Same as option "1" except includes the High Vibration-Resistant (HVR) option for Model RH only, limited to stroke range = 25 mm (1 in.) - 2000 mm (78.7 in.). Refer to 'HVR Option Note'.

HVR Option Note:

The High Vibration-Resistant (HVR) option provides the model RH rod-style sensors with increased resistance to shock and vibration for use in heavy duty machinery. Refer to "G-Series and R-Series Sensors for High Shock and Vibration Applications", document part no.: 551073 for more information.

OUTPUT (13 - 19)

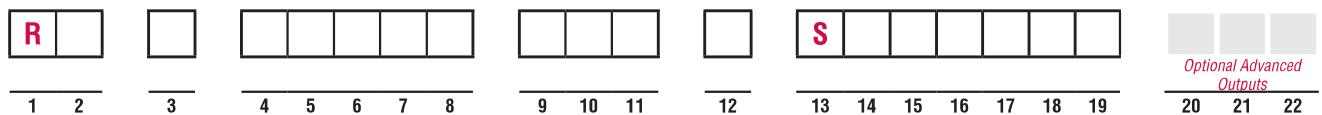
S + the 6 digit Output code defined (Continue to the next page)

OPTIONAL ADVANCED OUTPUTS (18- 22)

99 + the 3 digit Output code defined (Continue to the next page)

R-Series Models RP and RH Sensors

Ordering information



OUTPUT (13 - 19)
S + the 6 digit Output code

= **S** 13 14 15 16 17 18 19 13-19

[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
- A** = No filter + error delay (4 cycles)
- C** = No filter + error delay (8 cycles)
- D** = No filter + error delay (10 cycles)
- G** = Noise reduction filter (8 values) + error delay (10 cycles)
- K** = Peak reduction filter (8 values)
- N** = Peak reduction filter (8 values) + error delay (10 cycles)

[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
- 99** = **Advanced output options (Enter 99 and an additional 3 character suffix as shown below for boxes 18-22). Advanced outputs are optional and are not required to complete a valid model number.**

OPTIONAL ADVANCED OUTPUTS (18- 22)
99 + 3 digit Output code

= **9 9** 18-22

[20] Measurement Contents

- 1** = Position
- 2** = Position difference between 2 magnets
- 3** = Velocity
- 4** = Position + temperature
- 5** = Position difference between 2 magnets + temperature
- 6** = Velocity + temperature

[21] Direction and Sync Mode

- 1** = Forward async
- 2** = Forward sync1
- 3** = Forward sync2
- 4** = Forward sync3
- 5** = Reverse async
- 6** = Reverse sync1
- 7** = Reverse sync2
- 8** = Reverse sync3

[22] Linearity Correction Option (LCO) and Communication Diagnostics

- 0** = No further option
- 1** = LCO
- 2** = Additional alarm bit + even parity bit
- 4** = Additional alarm bit + even parity bit + LCO