

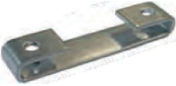
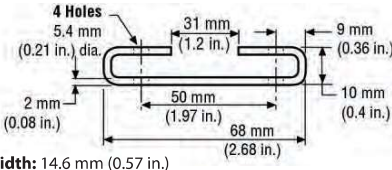
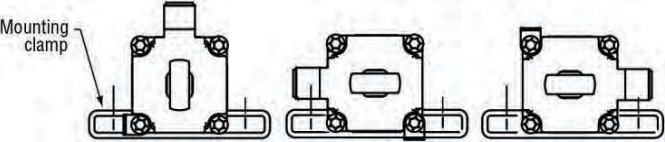
Sensor Mounting Models ER and EP2

Sensor Mounting Clamps

The E-Series model ER sensor is mounted onto the machine with moveable mounting clamps. Grooves for mounting clamps are available on three sides of the sensor housing, allowing versatile mounting orientations for the sensor's connector and extension cable. The rod is then attached to the moving machine part. Optional rod ends can be used to simplify sensor installation design and facilitate articulated motion sensing. Using dual rod ends the model ER sensor can be mounted between two independent moving points, such as swinging door applications. Please note for model ER sensors having stroke lengths over 750 mm (30 in.) only the first 90% of the stroke length can be used for articulated type applications when the weight of the sensor is supported only by rod ends.

Note:

1. Mounting clamps are ordered separately. Two mounting clamps, (part number 403508) are required for stroke lengths up to 750 mm (30 in.). A least one additional mounting clamp is required for longer stroke lengths.
2. MTS recommends using 10-32 cap screws (customer supplied) at a maximum torque of 44 in. lbs. when fastening mounting clamps.

Model ER Sensor Mounting and Installation Reference	Mounting Method	Part Number
  <p>Mounting clamp width: 14.6 mm (0.57 in.)</p>	<p>Mounting Clamp Sensor mounting for sensor model ER</p>	403508
	<p>Three Possible Mounting Configuration Using Mounting Clamp and Screws</p>	Mounting clamp, part number 403508


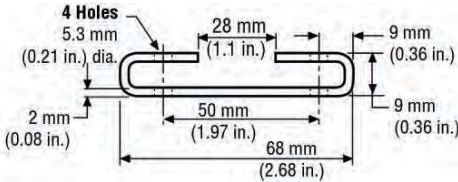
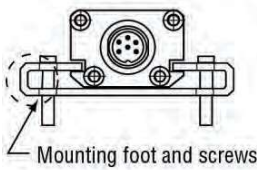
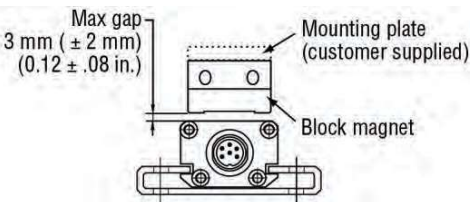
Sensor Mounting

Model EP2 Sensor Mounting

Temposonics model EP2 profile-style sensors are mounted onto a flat straight surface of the machine with moveable mounting feet. A pair (2) mounting feet are provided with each sensor. Two additional mounting feet (part no. 400802) are included for measurement stroke lengths greater than 48 inches. Mounting feet slide into side grooves and should be evenly distributed along the sensor extrusion to best secure the sensor for each particular application.

Note:

1. Additional mounting feet can be ordered separately.
2. MTS recommends using 10-32 cap screws (customer supplied) at a maximum torque of 44 in. lbs. when fastening mounting feet.

Model ER Sensor Mounting and Installation Reference	Mounting Method	Part Number
 	<p>Mounting Feet, Standard (304 SS) Profile-style sensor mounting for sensor model EP2 (Width = 14.5 mm (0.57 in.))</p>	403508
 	<p>Mounting Feet and Screws Profile-style sensor foot installation. Secure mounting feet with customer supplied 10-32 Cap screws. (recommended)</p> <p>Block Magnet, Style L mounting Magnet installs on a mounting plate (customer supplied) or flat surface of the machine's moving part.</p>	Mounting feet, part number 400802 Block magnet, style L part number 252887




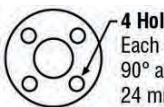

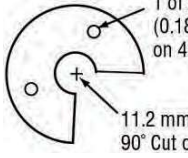

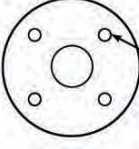

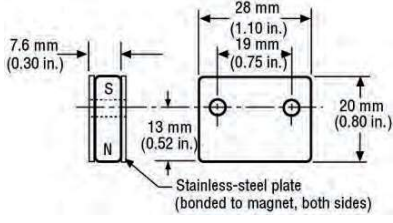

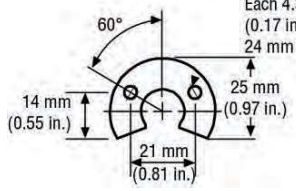
Rod and Profile-Style Position Sensors Magnet Selections

Magnet Selections

The standard ring magnet (part number 201542-2) is suitable for most applications.

Position Magnet Selections (Magnet must be ordered separately)

(Drawing dimensions are for reference only)


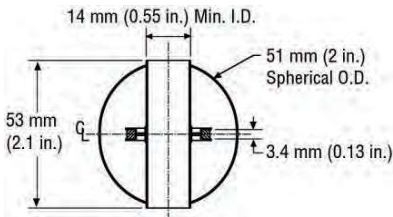

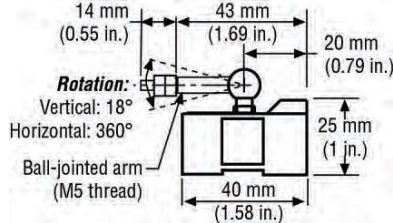

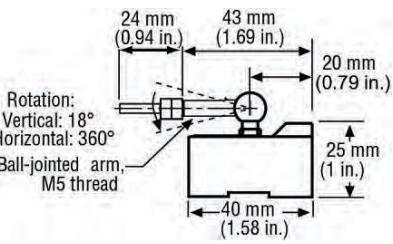

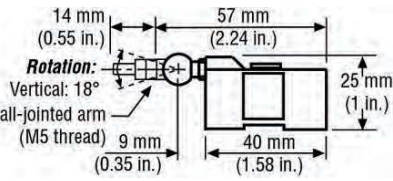

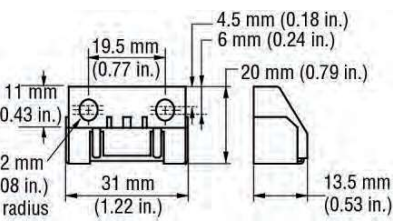
Magnet and Magnet Dimensions	Description and Specifications	Sensor Model Reference			Part Number
  <p>4 Holes Each 4.3 mm (0.17 in.) dia. 90° apart on 24 mm (0.94 in.) dia.</p>	<p>Standard Ring Magnet Material: Composite PA ferrite GF20 I.D.: 13.5 mm (0.53 in.) O.D.: 33 mm (1.3 in.) Thickness: 8 mm (0.3 in.) Weight: Approx. 14g Operating temperature: - 40 °C to +100 °C</p>	RH RF RD4	GH GT	EH EE	201542-2
  <p>1 of 2 holes each, 4.5 mm (0.18 in.) dia. 120° apart on 41.3 mm (1.625 in.) dia. 11.2 mm (0.44 in.) opening 90° Cut out</p>	<p>Large Open-Ring Magnet Material: PA 66-GF30 Magnet slugs potted with epoxy. I.D.: 15.9 mm (0.625 in.) O.D.: 63.25 mm (2.49 in.) Thickness: 9.5 mm (0.375 in.) Weight: Approx. 26g Operating temperature: - 40 °C to +75 °C</p>	RH RF RD4	GH GT	EH	201553
  <p>1 of 4 holes each 4.6 mm (0.18 in.) dia. 90° apart on 41.3 mm (1.625 in.) dia.</p>	<p>Large Ring Magnet Material: PA 66-GF30 Magnet slugs potted with epoxy. I.D.: 19.05 mm (0.75 in.) O.D.: 63.25 mm (2.49 in.) Thickness: 9.3 mm (0.375 in.) Weight: Approx. 35g Operating temperature: - 40 °C to +75 °C</p>	RH RF RD4	GH GT	EH EE	201554
  <p>7.6 mm (0.30 in.) 28 mm (1.10 in.) 19 mm (0.75 in.) 13 mm (0.52 in.) 20 mm (0.80 in.) Stainless-steel plate (bonded to magnet, both sides)</p>	<p>Bar Magnet, Style L Material: Stainless-steel plate bonded to both magnet sides. Magnet installs on a mounting plate (customer supplied) or flat surface of the machine's moving part.</p> <p>This magnet may influence the sensor performance specifications for some applications.</p>	RH RP RF RD4	GH GP GT	EP EH EL	251298-2
  <p>2 Holes Each 4.3 mm (0.17 in.) dia. on 24 mm (0.94 in.) dia. 60° 14 mm (0.55 in.) 25 mm (0.97 in.) 21 mm (0.81 in.)</p>	<p>Open-Ring Magnet, Style M Material: Composite PA ferrite GF20 I.D.: 13.5 mm (0.53 in.) O.D.: 33 mm (1.3 in.) Thickness: 8 mm (0.3 in.) Weight: Approx. 11g Operating temperature: - 40 °C to +100 °C</p> <p>This magnet may influence the sensor performance specifications for some applications.</p>	RH RF RD4 RP	GH GT GP	EP EH EL	251416-2

Rod and Profile-Style Position Sensors Magnet Selections

Magnet Selections

Position Magnet Selections (Magnet must be ordered separately)

(Drawing dimensions are for reference only)

Magnet and Magnet Dimensions	Description and Specifications	Sensor Model Reference			Part Number
  <p>14 mm (0.55 in.) Min. I.D. 53 mm (2.1 in.) 51 mm (2 in.) Spherical O.D. 3.4 mm (0.13 in.)</p>	<p>Magnet Float (Level Sensing Applications) Material: Stainless steel Weight: Approx. 42 ± 3g Density: 720 kg/m³ Specific gravity: 0.70 maximum Pressure: 870 psi maximum</p> <p>(This float is used with Rod-style sensors for hydraulic fluid or fresh water applications only)</p>	RH RD4	GH GT	EH	251447
  <p>14 mm (0.55 in.) 43 mm (1.69 in.) 20 mm (0.79 in.) Rotation: Vertical: 18° Horizontal: 360° Ball-jointed arm (M5 thread) 25 mm (1 in.) 40 mm (1.58 in.)</p>	<p>Captive-Sliding Magnet, Style S Material: GFK, magnet hard ferrite Weight: Approx. 30g Operating temperature: -40 °C to +75 °C</p>	RP	GP	EP EL	252182
  <p>24 mm (0.94 in.) 43 mm (1.69 in.) 20 mm (0.79 in.) Rotation: Vertical: 18° Horizontal: 360° Ball-jointed arm, M5 thread 25 mm (1 in.) 40 mm (1.58 in.)</p>	<p>Captive-Sliding Magnet, Style N with Longer Ball-Jointed Arm Material: GFK, magnet hard ferrite Weight: Approx. 30g Operating temperature: -40 °C to +75 °C</p>	RP	GP	EP EL	252183
  <p>14 mm (0.55 in.) 57 mm (2.24 in.) 25 mm (1 in.) Rotation: Vertical: 18° Ball-jointed arm (M5 thread) 9 mm (0.35 in.) 40 mm (1.58 in.)</p>	<p>Captive-Sliding Magnet, Style V Material: GFK, magnet hard ferrite Weight: Approx. 30g Operating temperature: -40 °C to +75 °C</p>	RG	GP	EP EL	252184
  <p>11 mm (0.43 in.) 19.5 mm (0.77 in.) 4.5 mm (0.18 in.) 6 mm (0.24 in.) 2 mm (0.08 in.) radius 31 mm (1.22 in.) 20 mm (0.79 in.) 13.5 mm (0.53 in.)</p>	<p>Block Magnet, Style L Material: Magnet hard ferrite with stainless-steel carrier Weight: Approx. 20g ± 2g Operating temperature: -40 °C to +100 °C</p> <p>This magnet may influence the sensor performance specifications for some applications.</p>	RP RH RD4 RF	GH GP GT	EP EP2 EL EH	252887



Rod and Profile-Style Position Sensors Magnet Selections

Magnet Selections

Position Magnet Selections (Magnet must be ordered separately)
(Drawing dimensions are for reference only)


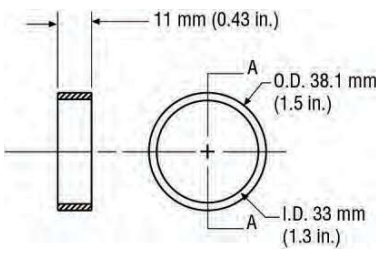

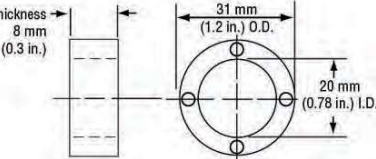

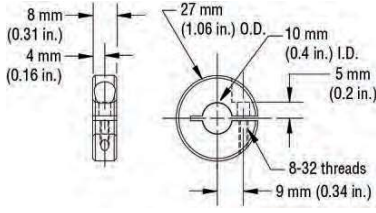

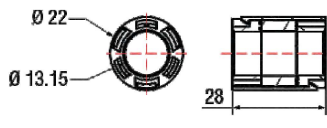

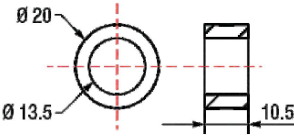

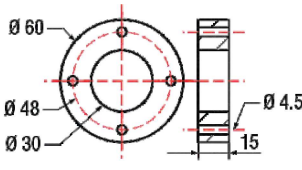

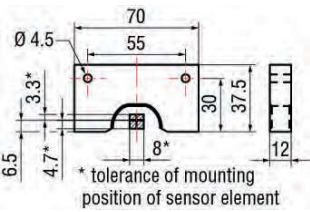
Magnet and Magnet Dimensions	Description and Specifications	Sensor Model Reference			Part Number
	<p>Large Ring magnet Material: Composite PA ferrite GF20 I.D.: 19.3 mm (0.76 in.) O.D.: 28 mm (1.1 in.) Thickness: 4.7 mm (0.185 in.) Weight: Approx. 6g Operating temperature: -40 °C to +100 °C</p>	<p>RF RH RD4</p>	<p>GH GT</p>	<p>EH EE</p>	<p>400424 Replaces 401467</p>
	<p>Small Ring Magnet Material: PA ferrite coated Weight: Approx. 10g I.D.: 13.5 mm (0.53 in.) O.D.: 25.4 mm (1 in.) Thickness: 8 mm (0.3 in.) Operating temperature: -40 °C to +100 °C</p>	<p>RH RF RD4</p>	<p>GH GT</p>	<p>EH EE</p>	<p>400533</p>
	<p>Magnet Spacer (Non-Ferrous, Use with Ring Magnet Part No.: 201542-2) I.D.: 14 mm (0.56 in.) O.D.: 32 mm (1.25 in.) Thickness: 3.2 mm (0.125 in.)</p>	<p>RH RD4</p>	<p>GH GT</p>	<p>EH EE</p>	<p>400633</p>
	<p>Small Ring Magnet Material: PA surface coated Weight: Approx. 5g I.D.: 13.5 mm (0.53 in.) O.D.: 17.4 mm (0.69 in.) Thickness: 7.9 mm (0.312 in.) Operating temperature: -40 °C to +100 °C</p>	<p>RH RD4</p>	<p>GH GT</p>	<p>EH EE</p>	<p>401032</p>
	<p>Ring Magnet (Use with Model EH sensors having a 7 mm O.D. rod) I.D.: 12 mm (0.47 in.) O.D.: 17.4 mm (0.69 in.) Thickness: 10.5 mm (0.41 in.) Operating temperature: -40 °C to +100 °C</p>			<p>EH 7 mm O.D. pipe</p>	<p>253572</p>



Rod and Profile-Style Position Sensors Magnet Selections

Magnet Selections

Position Magnet Selections (Magnet must be ordered separately) (Drawing dimensions are for reference only)

Magnet and Magnet Dimensions	Description and Specifications	Sensor Model Reference			Part Number
 	Large Ring Magnet Material: PA ferrite Weight: Approx. 10g I.D.: 33 mm (1.3 in.) O.D.: 38.1 mm (1.5 in.) Thickness: 3.4 mm (0.13 in.) Operating temperature: -40 °C to +100 °C Contact applications engineering for handling guidelines	RH RF RD4	GH GT	EH EE	401468
 	Ring Magnet Material: Weight: I.D.: 19.8 mm (0.78 in.) O.D.: 31 mm (1.2 in.) Thickness: 8 mm (0.3 in.)	RH RF RD4	GH GT	EH EE	402316
 	Collar Provides end of stroke stops for magnet float (part no.: 251447)	RH RD4	GH GT	EH	560777
 	System Magnet Material: composite POM Weight: 14 g Operating temperature: -40...+75 °C Surface pressure: 20 N/mm ²	RH RD4	GH GT	EH EE	253928
 	Multipole Magnet Material: composite neobonded Weight: 8.5 g Operating temperature: -40...+75 °C Surface pressure: 20 N/mm ²	RH RD4	GH GT	EH EE	254012
 	Ring Magnet 0D60 Material: Al CuMgPb, Magnets compound-filled; Weight: ca. 90 g Operating temperature: -40...+75 °C Surface pressure: 20 N/mm ² Fastening torque for M4 screws: max. 1 Nm	RH RD4 RF	GH GT	EH	MT0162
  <p>* tolerance of mounting position of sensor element</p>	U-Magnet Material: AIMg4.5Mn, black anodised; magnets compound-filled Weight: 125 g Operating temperature: -40...+75 °C Fastening torque for M4 screws: max. 4 Nm This magnet may influence the sensor performance specifications for some applications.	RH RD4 RF	GH GT	EH	MT0162