Temposonics®

Magnetostrictive Linear-Position Sensors

MTS
® **SENSORS**

Industrial Product Catalog Accessories

EXTENSION CABLE OPTIONS

Cable Length Limitations (Based on published Bus and Serial Communications Standards)

Apply good industry practices for long cable runs - keep cable away from high power AC lines and all motor drive cables.

R-Series Sensor Models	Baud Rate	Maximum Cable or Bus Length	
R-Series SSI	1.5 MBd 400 kBd 300 kBd 200 kBd 100 kBd	10 ft. 160 ft. 320 ft. 650 ft. 1300 ft.	(3 m) (50 m) (100 m) (200 m) (400 m)
R-Series CANbus	1.0 MBd 500 kBd 250 kBd 125 kBd	80 ft. 320 ft. 820 ft. 1640 ft.	(25 m) (100 m) (250 m) (500 m)
R-Series DeviceNet	500 kBd 250 kBd 125 kBd	420 ft. 800 ft. 1730 ft.	(130 m) (270 m) (530 m)
R-Series Profibus	12 MBd 1.5 MBd 500 kBd 187.5 kBd ≤93.75 kBd	330 ft. 650 ft. 1300 ft. 3280 ft. 3940 ft.	(100 m) (200 m) (400 m) (1000 m) (1200 m)

G-Series Sensor Models	Maximum Cable Length		
G-Series Analog (Voltage or Current)	150 ft.	(45 m)	
G-Series digital (PWM or Start/Stop)	300 ft.	(90 m)	Note 1
G-Series Neuter (Start/Stop output wired for square wave neuter)	250 ft.	(75 m)	Note 2

Notes:

1. 300 feet maximum using the ± differential pair for the interrogation (Start) and gate (Stop) signals.
2. 250 feet maximum using single-ended interrogation (Start) signal. The unused interrogation signal MUST be terminated to ground at the control box.

EXTENSION CABLE OPTIONS - HOW TO ORDER

Standard 6-Pin connector type (D60) used with R-Series G-Series and E-Series Sensors

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│ D │   │ │   │   │   │ │   │   │   │
└───┴───┘ └───┴───┴───┘ └───┴───┴───┘
  1   2     3   4   5     6   7   8
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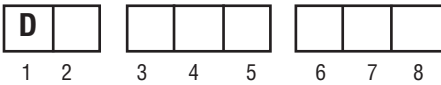
SENSOR CONNECTION TYPE (1-2)

D6 = Female connector, (straight exit), and standard #530026 Cable (PVC jacket) for sensors with D6 or D60 connector

DA = Female connector, (90° exit), and standard # 530026 cable (PVC jacket) for sensors with D6 or D60 connector.

DJ = Female connector, (straight exit) and # 530045 cable, (black polyurethane jacket for higher resistance to moisture and oil), for sensors with D6 or D60 connector.

DK = Female connector, (90° exit), and #530045 cable, (black polyurethane jacket for higher resistance to moisture and oil), for sensors with D6 or D60 connector.

CABLE LENGTHS* (3-5)

For standard length cables up to 100 ft.

005 = 5 ft.
015 = 15 ft.
025 = 25 ft.
050 = 50 ft.
100 = 100 ft.
_ _ _ = Cable length (ft)*

CABLE TERMINATION (2 or 3 characters depending on option selected) (6-8)

P0 = Pigtail connection, (no connector)
D6M = D6 male connector, (Straight exit). Only available with the D6 option above.
D6 F = Female connector, (straight exit). Only available with the D6 option above.
DAF = Female connector, (90° exit). Only available with the DA option above.

* Refer to "Cable Length Limitations" table on page 55 for maximum cable length.
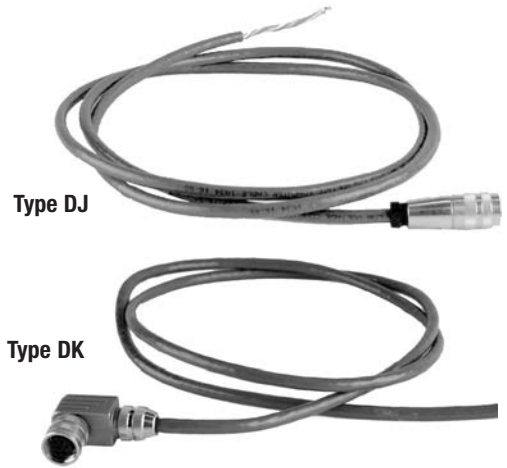
Type DJ

Type DK

6-Pin connector type (D63) used with R-Series Profibus Sensors

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┌───┬───┐ ┌───┬───┬───┐ ┌───┬───┬───┐
│ D │   │ │   │   │   │ │   │   │   │
└───┴───┘ └───┴───┴───┘ └───┴───┴───┘
  1   2     3   4   5     6   7   8
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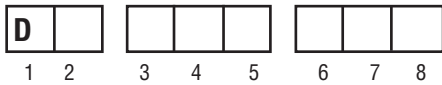
SENSOR CONNECTION TYPE (1-2)

DF = Female connector, (straight exit), and #530040 cable for Profibus sensors with D63 connector

DG = Female connector, (90° exit), and #530040 cable for Profibus sensors with D63 connector

CABLE LENGTHS* (3-5)

For standard length cables up to 100 ft.

005 = 5 ft.
015 = 15 ft.
025 = 25 ft.
050 = 50 ft.
100 = 100 ft.
_ _ _ = Cable length (ft)*

Type DG

CABLE TERMINATION (2 or 3 characters depending on option selected) (6-8)

P0 = Pigtail connection, (no connector)
DFM = Male connector, (Straight exit). For daisy-chain connections of Profibus sensors with D63 connector. Only available with the DF option above.
DGM = Male connector, (90° exit). For daisy-chain connections of Profibus sensors with D63 connector. Only available with the DG option above.

* Refer to "Cable Length Limitations" table on page 55 for maximum cable length.

EXTENSION CABLE OPTIONS - HOW TO ORDER

Standard 7-Pin DIN connector type (D70) used with R-Series SSI Sensors

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┌───┬───┬───┬───┬───┬───┬───┐
│ D │   │   │   │   │ P │ 0 │
└───┴───┴───┴───┴───┴───┴───┘
  1   2   3   4   5   6   7
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SENSOR CONNECTION TYPE (1-2)

D7 = Female connector, (straight exit), and #530029 cable (high performance shielding, orange polyurethane jacket), for SSI sensors with D70 connector.

DR = Female connector, (90° exit), and #530029 cable (high performance shielding, orange polyurethane jacket), for SSI sensors with D70 connector.

DS = Female connector, (straight exit) and standard #530026 cable, (PVC jacket), for SSI sensors with D70 connector.

DT = Female connector, (90° exit), and standard #530026 cable, (PVC jacket), for SSI sensors with D70 connector.

DU = Female connector, (straight exit), and #530045 cable, (black polyurethane jacket), for SSI sensors with D70 connector.

DT = Female connector, (90° exit), and #530045 cable, (black polyurethane jacket), for SSI sensors with D70 connector.

CABLE LENGTHS* (3-5)

For standard length cables up to 100 ft.

005 = 5 ft.
015 = 15 ft.
025 = 25 ft.
050 = 50 ft.
100 = 100 ft.
_ _ _ = Cable length (ft)*

CABLE TERMINATION (6-7)

P0 = Pigtail connection, (no connector)

* Maximum cable length is dependent on the baud rate (refer to "Cable Length Limitations" table on page 55)

Type D7

ADAPTER CABLE OPTIONS FOR REPLACING RETIRED SENSOR MODELS (Temposonics I, II & L-SERIES)

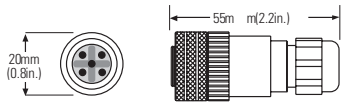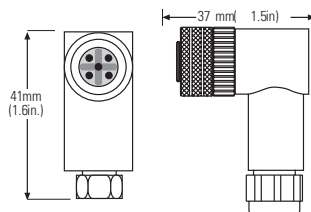| Product		Dimension	Application
Used when replacing Tempo II and model LH sensors that have integral RB connectors			
Part no: 253243, -1, -2 Female straight exit D6 to male RB connection adapter cables	-1	1 ft. cable length, standard	For G-Series analog output sensors
	-2	1 ft. cable length, standard	For G-Series digital-pulse and neuter output sensors
Part no: 253244, -1, -2 Female straight exit D6 to male RB connection adapter cables	-1	5 ft. cable length	For G-Series analog output sensors
	-2	5 ft. cable length	For G-Series digital-pulse and neuter output sensors
Used when replacing Tempo II sensors that have integral RC connectors			
Part no: 201612, -1, -2 Female straight exit D6 to male RC connection adapter cables	-1	1 ft. cable length, standard	For G-Series analog output sensors.
	-2	1 ft. cable length, standard	for G-Series digital-pulse and neuter output sensors.
Used when replacing model LH sensors that have integral or in-line 10-pin MS connectors			
Part no: 253245, -1, -2 Female straight exit D6 to male MS connection adapter cables	-1	1 ft. cable length, standard	For G-Series analog output sensors.
	-2	1 ft. cable length, standard	For G-Series digital-pulse and neuter output sensors.
Part no: 253246, -1, -2 Female straight exit D6 to male MS connection adapter cables	-1	5 ft. cable length	For G-Series analog output sensors
	-2	5 ft. cable length	For G-Series digital-pulse and neuter output sensors
Used when replacing Tempo II and model LH sensors that have in-line MS connectors wired for the R1, R2, or R3 connection types			
Part no: 253245-3 Female straight exit D6 to male MS (R1, R2, or R3 connection) adapter cables	-3	1 ft. cable length	For R3 connection using G-series digital-pulse output sensors.
Part no: 253246-3 Female straight exit D6 to male MS (R1, R2, or R3 connection) adapter cables	-3	5 ft. cable length	For R3 connection using G-series digital-pulse output sensors.
Part no: 253302, -1, -2 Female straight exit D6 to male MS (R1, R2, or R3 connection) adapter cables	-1	5 ft. cable length	For R1 (positive interrogation) connection using G-Series sensors.
	-2	5 ft. cable length	For R2 (negative interrogation) connection using G-Series sensors.

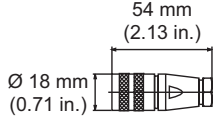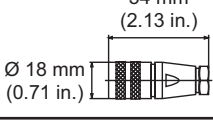## ADAPTER CABLE OPTIONS FOR REPLACING RETIRED SENSOR MODELS (Temposonics I, II & L-SERIES)
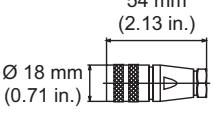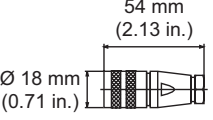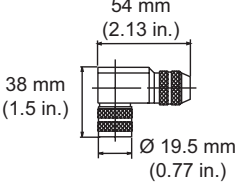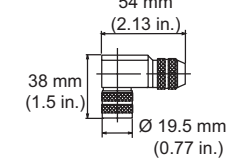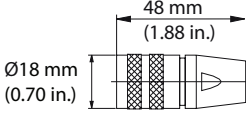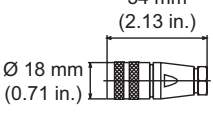
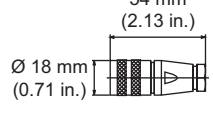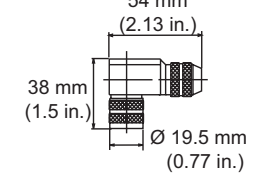| Product	Dimension		Application
Used when replacing models LH, LP and R-Series sensors that have integral RG connectors			
Part no: 253248, -1, -2 Female straight exit D6 to male RG connection adapter cables	-1	1 ft. cable length, standard	For R-Series analog or G-Series analog and digital-pulse output sensors
	-2	5 ft. cable length	For R-Series analog or G-Series analog and digital-pulse output sensors
Part no: 253315, -1, -2 Female straight exit D7 to male RG connection adapter cables	-1	1 ft. cable length, standard	For R-Series SSI output sensors
	-2	5 ft. cable length	For R-Series SSI output sensors
Used when replacing model LP sensors that have the integral C-style connector or in-line H or J style connectors			
Part no: 253247, -1, -2, -3, -4 Female straight exit D6 to male AMP connection adapter cables.	-1	1 ft. cable length	For G-Series analog output sensors
	-2	1 ft. cable length	For G-Series digital-pulse output sensors
	-3	7 ft. cable length	For G-Series analog output sensors
	-4	7 ft. cable length	For G-Series digital-pulse output sensors

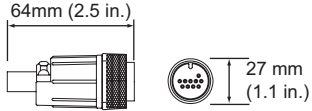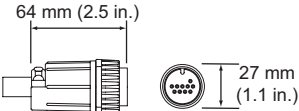| Product	Dimension	Application
Part no. 401327 Male RC to female RB connector adapter.	6 in. overall length	For retrofitting RC connection style Temposonics II or model LH sensors
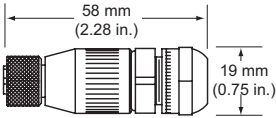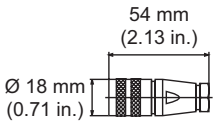
CONNECTORS (For Current Production Sensors)

Product	Dimension	Material	Application
5-pin style connectors			
Part no. 370375 D51 Field-installable connector	20mm (0.8in.) — 55mm (2.2in.)		Female, straight exit, for Model R-Series sensors with DeviceNet output
Part no. 370376 D51 Field-installable connector	41mm (1.6in.) — 37 mm (1.5in.)		Female, 90° exit, for Model R-Series sensors with DeviceNet output

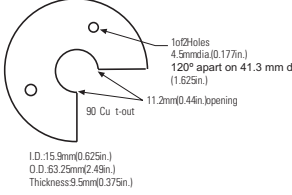## CONNECTORS (For Current Production Sensors)
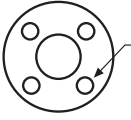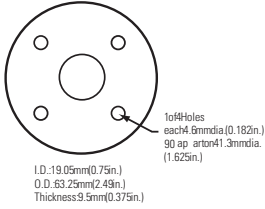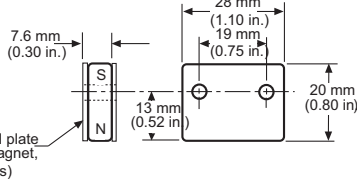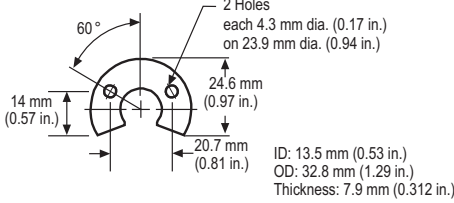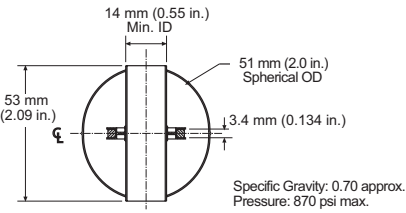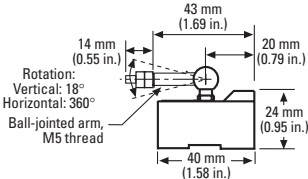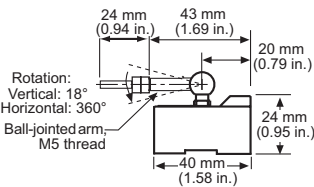
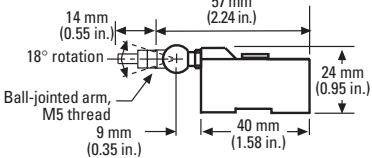| Product	Dimension	Material	Application
6-pin style connectors			
Part no. 560700 D6 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG7	Female, straight exit, mates to D60 connection type on R-Series, G-Series & E-Series sensors with six conductor cable (STC09131D)
Part no. 370372 D6 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG7	Male, straight exit
Part no. 370423 D6 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG9 Max. cable dia.: 8mm	Female, for Profibus sensors w/PG9 strain relief (D63 connection type). Also used to retrofit 10 conductor Tempo II extension cables (STC09131D06PG9)
Part no. 370427 D6 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG9 Max. cable dia.: 8mm	Male, for Profibus sensors w/PG9 strain relief (D63 connection type) (STC09131H06PG9)
Part no. 560778 D6 Field-installable connector	54 mm (2.13 in.) 38 mm (1.5 in.) Ø 19.5 mm (0.77 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG9, M16 Max. cable dia.: 8 mm	Female, 90° exit, mates to D60 & Profibus D63 connection type on R-Series, G-Series & E-Series sensors with six conductor cable (STC09131-6)
Part no. 370460 Profibus D6 Field-installable connector	54 mm (2.13 in.) 38 mm (1.5 in.) Ø 19.5 mm (0.77 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG9 Max. cable dia.: 8mm	Male, 90° exit, for Profibus sensors (D63 connection type) (STC09131H06PG9)
Part no. 252347* Profibus bus terminator * was 370419 (STA09131H06)	48 mm (1.88 in.) Ø18 mm (0.70 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated	For use with Model RH, RP & RF sensors, Male connector type
7-pin style connectors			
Part no. 560701 D7 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG7	Female, Straight exit, mates to D70 connection type on R-Series sensors. Connector has PG7 size strain relief for standard cable.
Part no. 370516 D7 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG9 Max. cable dia.: 8mm	Female, straight-exit, mates to D7 connection type on R-Series SSI sensors. Connector has PG9 size strain-relief for larger cable size, (STC09131D07PG9)
Part no. 560779 D7 Field-installable connector	54 mm (2.13 in.) 38 mm (1.5 in.) Ø 19.5 mm (0.77 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG9, M16 Max. cable dia.: 8 mm	Female, 90° exit, mates to D70 connection type on R-Series sensors (STC09131-7)

Accessories
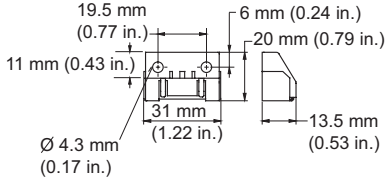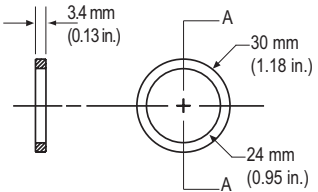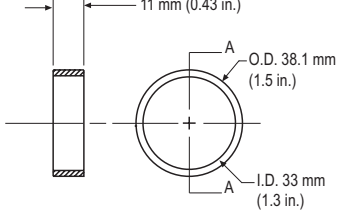
Product	Dimension	Material	Application
Part no. 400755-3 RB/RC connector, Field-installable	64mm (2.5 in.) 27 mm (1.1 in.)		Female field-installable, mates with sensor fitted with RB connector or previous RC design
Part no. 370486 RB connector	64 mm (2.5 in.) 27 mm (1.1 in.)		Male, field-installable mates with part no: 400755-3
Part no. 401366 RG Field-installable connector	58 mm (2.28 in.) 19 mm (0.75 in.)		Female, straight exit mates to RG connection type on R-Series and L-Series
Part no. 370391 D8 Field-installable connector	54 mm (2.13 in.) Ø 18 mm (0.71 in.)	Housing: Zinc nickel plated Termination: Solder Contact insert: Silver plated Cable clamp: PG7	Female, straight exit, mates to D80 connection type on Model L Series

MAGNETS AND FLOATS

Product	Dimension	Material	Application
Part no. 201542-2 Standard ring magnet	4 Holes each 4.3 mm dia. (0.17 in.) 90° apart on 23.9 mm dia. (0.94 in.) ID: 13.5 mm (0.53 in.) OD: 32.8 mm (1.29 in.) Thickness: 7.9 mm (0.312 in.)	Composite PA-Ferrite-GF20 Weight: Approx. 14g Operating temperature: -40 to +100°C	For Model RH, GH
Part no. 201553 Large open-ring magnet	1of2Holes 4.5mmdia.(0.177in.) 120° apart on 41.3 mm d (1.625in.) 90 Cu t-out 11.2mm(0.44in.)opening I.D.:15.9mm(0.625in.) O.D.:63.25mm(2.49in.) Thickness:9.5mm(0.375in.)	PA 66-GF30 Magnet slugs potted with epoxy Weight: Approx. 26g Operating temperature: -40 to +75°C	For Model RH, GH
Part no. 201554 Large ring magnet	1of4Holes each4.6mmdia.(0.182in.) 90 ap arton41.3mmdia. (1.625in.) I.D.:19.05mm(0.75in.) O.D.:63.25mm(2.49in.) Thickness:9.5mm(0.375in.)	PA 66-GF30 Magnet slugs potted with epoxy Weight: Approx. 35g Operating temperature: -40 to +75°C	For Model RH, GH
Part no. 251298-2 Bar Magnet	28 mm (1.10 in.) 19 mm (0.75 in.) 7.6 mm (0.30 in.) 13 mm (0.52 in.) 20 mm (0.80 in) Stainless-steel plate (bonded to magnet, both sides)		For Model RH, RP, GH, GP, EP
Part no. 251416-2 Standard open ring magnet	2 Holes each 4.3 mm dia. (0.17 in.) on 23.9 mm dia. (0.94 in.) 60° 24.6 mm (0.97 in.) 14 mm (0.57 in.) 20.7 mm (0.81 in.) ID: 13.5 mm (0.53 in.) OD: 32.8 mm (1.29 in.) Thickness: 7.9 mm (0.312 in.)	Composite PA-Ferrite-GF20 Weight: Approx. 11g Operating temperature: -40 to +100°C	For Model RP, RH, GH, GP, EP
Part no. 251447 Magnet float	14 mm (0.55 in.) Min. ID 51 mm (2.0 in.) Spherical OD 53 mm (2.09 in.) 3.4 mm (0.134 in.) Specific Gravity: 0.70 approx. Pressure: 870 psi max.	316L Stainless steel Density: 720 kg/m3 Max. Pressure: 870 psi Weight: 42 ± 3g	For Model RH, GH
Part no. 252182 Captive-sliding magnet	43 mm (1.69 in.) 14 mm (0.55 in.) 20 mm (0.79 in.) Rotation: Vertical: 18° Horizontal: 360° Ball-jointed arm, M5 thread 24 mm (0.95 in.) 40 mm (1.58 in.)	GFK, Magnet hard ferrite Weight: Approx. 30g Operating temperature: -40 to +75°C	For Model RP, GP, EP
Part no. 252183 Captive-sliding magnet	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 24 mm (0.95 in.) 40 mm (1.58 in.)	GFK, magnet hard ferrite Weight: Approx. 30g Operating temperature: -40 to 75° C	For Model RP, GP, EP Similar to (252182) but with extra length on the ball-jointed arm

| Product	Dimension	Material	Application
Part no. 252184 Captive-sliding magnet	57 mm (2.24 in.) 14 mm (0.55 in.) 18° rotation Ball-jointed arm, M5 thread 9 mm (0.35 in.) 24 mm (0.95 in.) 40 mm (1.58 in.)	GFK, magnet hard ferrite Weight: Approx. 30g Operating temperature: -40 to 75° C	For Model RP, GP, EP
Part no. 252887 Block magnet type L	19.5 mm (0.77 in.) 11 mm (0.43 in.) 6 mm (0.24 in.) 20 mm (0.79 in.) 31 mm (1.22 in.) 13.5 mm (0.53 in.) Ø 4.3 mm (0.17 in.)		For Model EP, EP2
Part no. 400533 Small ring magnet	I.D. 13.5 mm (0.53 in.) O.D. 25.4 mm (1.0 in.) Thickness: 7.9 mm (0.312 in.)	Composite: PA-Ferrite Weight: Approx. 10g Operating temperature: -40 to +100° C	For Model RH, GH
Part no. 400633 Magnet spacer	4 Holes each 3.9 mm O.D. (0.15 in.) 90° apart on 23.9 mm O.D. (0.94 in.) I.D. 14.3 mm (0.56 in.) O.D. 31.8 mm (1.25 in.) Thickness: 3.2 mm (0.125 in.)	Aluminum	For Model RH, GH. Non-ferrous spacer for use with standard ring magnet (201542-2)
Part no. 401032 Small ring magnet	I.D. 13.5 mm (0.532 in.) O.D. 17.4 mm (0.685 in.) Thickness: 7.9 mm (0.312 in.) (For use with strokes ≤1525 mm or 60 in.)	Surface PA coated Weight: Approx. 5g Operating temperature: -40 to +100° C	For Model RH, GH. Not for multi-position measurement. Resolution min. 10 μm
Part no. 401467 Large ring magnet	3.4 mm (0.13 in.) A 30 mm (1.18 in.) 24 mm (0.95 in.) A	Composite: PA-Ferrite Operating temperature: -40 to +100° C	For Model RH, GH
Part no. 401468 Large ring magnet	11 mm (0.43 in.) A O.D. 38.1 mm (1.5 in.) I.D. 33 mm (1.3 in.) A	Composite: PA-Ferrite Operating temperature: -40 to +100° C	For Model RH, GH

Accessories

MAGNETS, FLOATS, AND PRESSURE HOUSING

Compatibility Chart

Magnet Part no.	Sensor Model				
	Rod-style		Profile-style		
	RH	GH	RP	GP	EP
201542-2	•	•			
201553	•	•			
201554	•	•			
201298-2	•	•	•	•	•
251416-2	•	•	•	•	•
251447 (float)	•	•			
252182			•	•	•
252183			•	•	•
252184			•	•	•
400533	•	•			
401032	•	•			
401467	•	•			
401468	•	•			

HOW TO ORDER

Pressure Housing (for use with Temposonics sensor models GH and RH only)

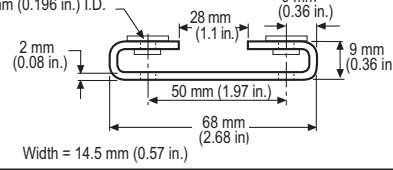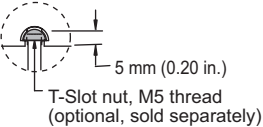| H	H						
1	2	3	4	5	6	7	8
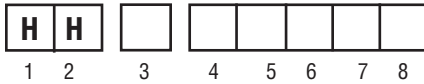
HOUSING STYLE (3)
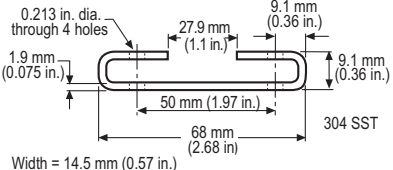
T = US customary threads, raised-faced hex
S = US customary threads, flat-faced hex
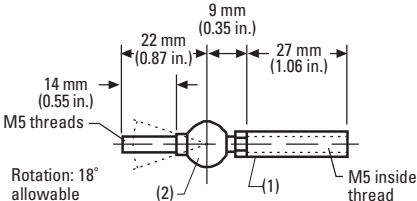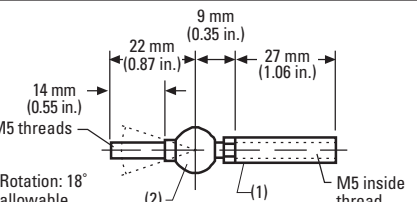**M** = Metric threads, flat-faced hex

STROKE LENGTH (4-8)*

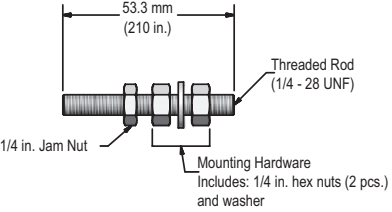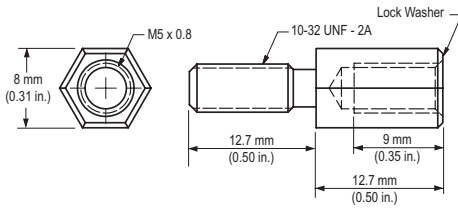_ _ _ . _ U =   Inches and tenths *(Encode in 0.1 in. increments)*
                                    or
_ _ _ _ M = Millimeters *(Encode in 5 mm increments)*

* Limited to 1825 mm (72 in.)
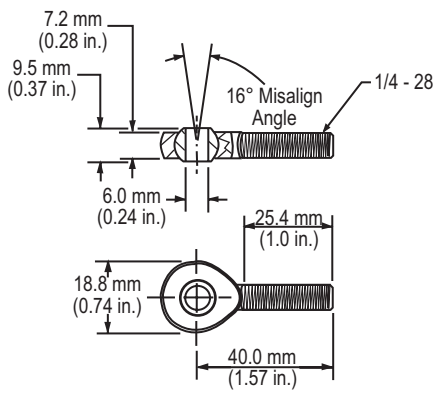
MOUNTING FEET AND T-SLOT NUT
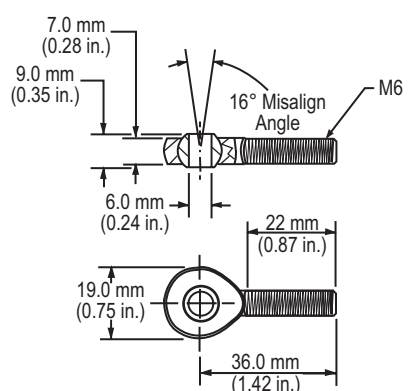
Product	Dimension	Material	Application
Part no. 400802 Mounting feet, standard	0.213 in. dia. through 4 holes; 27.9 mm (1.1 in.); 9.1 mm (0.36 in.); 1.9 mm (0.075 in.); 9.1 mm (0.36 in.); 50 mm (1.97 in.); 68 mm (2.68 in); 304 SST; Width = 14.5 mm (0.57 in.)	304 Stainless steel	For use with Model RP, GP, EP and ER sensors.
Part no. 252004 Mounting feet, insulated	5 mm (0.196 in.) I.D.; 28 mm (1.1 in.); 9 mm (0.36 in.); 2 mm (0.08 in.); 9 mm (0.36 in.); 50 mm (1.97 in.); 68 mm (2.68 in); Width = 14.5 mm (0.57 in.)	Stainless steel with nylon washers and cloth tape on bottom	For use with Model RP, GP, and EP sensors. Provides electrical and mechanical isolation.
Part no. 401602 Base channel T-slot nut	5 mm (0.20 in.); T-Slot nut, M5 thread (optional, sold separately)	M5 thread	Nut for mounting RP and GP sensors.

MECHANICAL END CONNECTORS (FOR USE WITH TEMPOSONICS SENSOR MODELS RP, GP, EP AND ER)

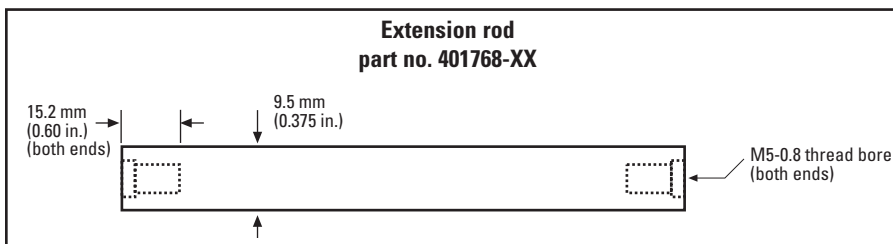| Product	Dimension	Material	Application
Part no. 401603 Joint-rod sleeve (1 in.)	9 mm (0.35 in.); 22 mm (0.87 in.); 27 mm (1.06 in.); 14 mm (0.55 in.); M5 threads; Rotation: 18° allowable; (2); (1); M5 inside thread		For use with captive-sliding magnets
Part no. 401913* Ball-jointed arm, straight	9 mm (0.35 in.); 22 mm (0.87 in.); 27 mm (1.06 in.); 14 mm (0.55 in.); M5 threads; Rotation: 18° allowable; (2); (1); M5 inside thread		For use with captive-sliding magnets
Part no. 251975 Stud end attachment	53.3 mm (210 in.); Threaded Rod (1/4 - 28 UNF); 1/4 in. Jam Nut; Mounting Hardware Includes: 1/4 in. hex nuts (2 pcs.) and washer		For use with Model ER sensors
Part no. 402849 Thread adapter, 10-32 male to M5 female	M5 x 0.8; 10-32 UNF - 2A; Lock Washer; 8 mm (0.31 in.); 12.7 mm (0.50 in.); 9 mm (0.35 in.); 12.7 mm (0.50 in.)	Stainless Steel	This part can be used with Models EP, GP, or RP captive-sliding magnets when retrofitting old LPS model sensors that have the old 252052 captive-sliding magnet (with #10-32 male threads).

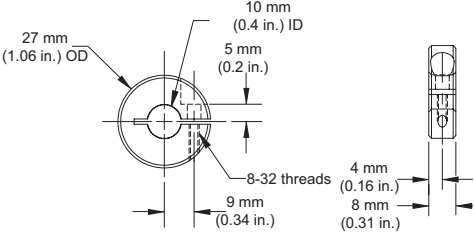**MECHANICAL END CONNECTORS (FOR USE WITH TEMPOSONICS SENSOR MODELS RP, GP, EP AND ER)**
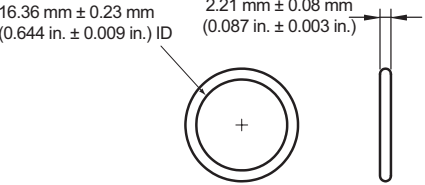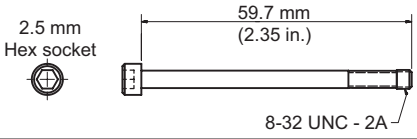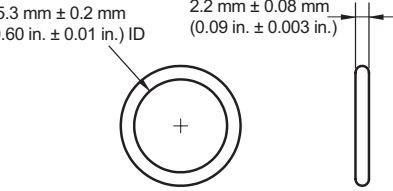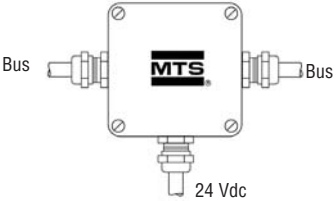
Product	Dimension	Application
Part no. 253346 Rod end kit (English) 	See Part no. 560444	Male 1/4-28 rod ends (2 pieces), plus special wrench for use with Model ER sensors.
Part no. 253347 Rod end kit (Metric) 	See Part no. 561255	Male M6 rod ends (2pieces), plus special wrench for use with Model ER sensors.
Part no. 560444 Rod end attachment (English) 	 7.2 mm (0.28 in.) 9.5 mm (0.37 in.) 16° Misalign Angle 1/4 - 28 6.0 mm (0.24 in.) 25.4 mm (1.0 in.) 18.8 mm (0.74 in.) 40.0 mm (1.57 in.)	Male 1/4-28 for use with Model ER sensors.
Part no. 561255 Rod end attachment (Metric) 	 7.0 mm (0.28 in.) 9.0 mm (0.35 in.) 16° Misalign Angle M6 6.0 mm (0.24 in.) 22 mm (0.87 in.) 19.0 mm (0.75 in.) 36.0 mm (1.42 in.)	Male M6 for use with Model ER sensors.
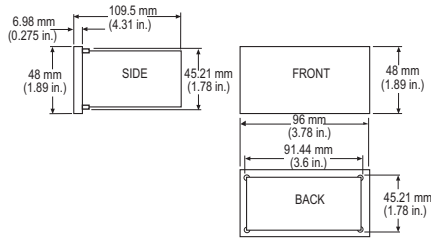
Extension rod lengths	Part no.		Extension rod lengths	Part no.
60.3 mm (2.375 in.)	401768-2		390.5 mm (15.375 in.)	401768-15
85.7 mm (3.375 in.)	401768-3		466.7 mm (18.375 in.)	401768-18
111.1 mm (4.375 in.)	401768-4		517.5 mm (20.375 in.)	401768-20
161.9 mm (6.375 in.)	401768-6		542.9 mm (21.375 in.)	401768-21
187.3 mm (7.375 in.)	401768-7		619.1 mm (24.375 in.)	401768-24
212.7 mm (8.375 in.)	401768-8		771.5 mm (30.375 in.)	401768-30
238.1 mm (9.375 in.)	401768-9		923.9 mm (36.375 in.)	401768-36
263.5 mm (10.375 in.)	401768-10		1076.3 mm (42.375 in.)	401768-42
314.3 mm (12.375 in.)	401768-12		1228.7 mm (48.375 in.)	401768-48
365.1 mm (14.375 in.)	401768-14		1533.5 mm (60.375 in.)	401768-60

Extension rod
part no. 401768-XX

15.2 mm (0.60 in.) (both ends)
9.5 mm (0.375 in.)
M5-0.8 thread bore (both ends)

Product	Dimension	Material	Application
Part no. 500015 Hex jam-nut	3/4-16 in. UNC	Stainless steel, nylon insert	3/4-16 UNF Nylon insert locknut for use with model RH and GH sensors with style "T" or "S" housings.
Part no. 500018 Hex jam-nut	M18 x 1.5 threads	Stainless steel	M18 x 1.5 nut for use with models RH and GH sensors with style "M" housing.
Part no. 560777 Collar	10 mm (0.4 in.) ID, 27 mm (1.06 in.) OD, 5 mm (0.2 in.), 8-32 threads, 9 mm (0.34 in.), 4 mm (0.16 in.), 8 mm (0.31 in.)	304 stainless steel	For use with GH and RH pressure housings and float 251447.
Part no. 560315 O-Ring, for US customary flange with 3/4-16 UNF threads	16.36 mm ± 0.23 mm (0.644 in. ± 0.009 in.) ID, 2.21 mm ± 0.08 mm (0.087 in. ± 0.003 in.)	Fluoroelastomer 75 ± 5 durometer	Spare, for use with rod-style sensor Models RH and GH. With style "T" or "S" housing.
Part no. 560357 Magnet mounting screws		#6-32x7/8 Stainless steel	Used to mount standard ring magnet part no: 201542-2 (4 required) or open ring magnet part no: 251416-2 (2 required).
Part no. 402617 Electronics housing screw	2.5 mm Hex socket, 59.7 mm (2.35 in.), 8-32 UNC - 2A		Used to install newer sensor cartridges (GHB and RHB models) into the old LH or old RH sensor pressure housings (2 required).
Part no. 401133 O-Ring, for metric flange with M18 x 1.5 threads.	15.3 mm ± 0.2 mm (0.60 in. ± 0.01 in.) ID, 2.2 mm ± 0.08 mm (0.09 in. ± 0.003 in.)	Fluoroelastomer 75 ± 5 durometer	Spare, for use with rod-style sensor Models RH and GH with style "M' housing.
Part no. 252916 Profibus filter box	Bus, MTS, Bus, 24 Vdc	Dimensions: 80 mm (3.15 in.) long x 75 mm (2.95 in.) wide x 58 mm (2.28 in.) deep.	The box is used for EMC-conformal feeding of 24 Vdc supply voltage into the Profibus-DP hybrid cable.

Accessories

Industrial Product Catalog 550929 B

SENSOR DISPLAY

Product	Dimension	Application
Part no. 251153 Temposonics Display Unit (TDU-200)* **Note:** *Product Specification 550178 and User's Manual 550260.	6.98 mm (0.275 in.) 109.5 mm (4.31 in.) 48 mm (1.89 in.) SIDE 45.21 mm (1.78 in.) FRONT 48 mm (1.89 in.) 96 mm (3.78 in.) 91.44 mm (3.6 in.) BACK 45.21 mm (1.78 in.)	Meter for use with Start/Stop sensors only.

POWER SUPPLY

Product	Dimension	Application
Part no: 380009 Sensor power supply	100 mm x 165 mm x 50 mm.	Standard power supply (110 Vac to 24 Vdc/ 0.5 A) for use with sensors and interface products.

SENSOR PROGRAMMING

Product	Application
Part no. 253124 R-Series analog hand-held programmer Sensor ⟵ ⟶ 24 V	For adjusting null (setpoint 1) and span (setpoint 2) on R-Series analog sensors, (for single magnet versions only).
Part no. 253408 R-Series analog cabinet programmer	For adjusting null (setpoint 1) and span (setpoint 2) on R-Series analog sensors, (for single magnet versions only). The programmer is designed for snap-in mounting on standard 35 mm DIN rail. A "program/run" switch allows the programmer to be permanately wired inside the control cabinet.
Part no. 253309 R-Series analog PC programming kit	Interface converter box, power supply, PC software and cabling.
Part no. 253310 R-Series SSI PC programming kit	Interface converter box, power supply, PC software and cabling.
Part no. 252173-D63 R-Series Profibus node address programmer	For field address programming of R-Series Profibus output.
Part no.252173-D53 R-Series Profibus programming acces- sories	For field address programming of R-Series Profibus output.
Part no. 252382-D62 R-Series CANbus programming accessories	For field address programming of R-Series CANopen sensors.

SENSOR PROGRAMMING

Product	Application
Part no. 253294 G-Series analog hand-held programmer	For adjusting null (setpoint 1) and span (setpoint 2) on G-Series analog sensors.
Part no. 380078 G-Series infrared setpoint programmer	For adjusting null (setpoint 1) and span (setpoint 2) on G-Series analog sensors.
Part no. 253311 G-Series analog PC programming kit	Interface converter box, power supply, PC software and cabling.
Part no. 253312 G-Series digital pulse PC programming kit	Interface converter box, power supply, PC software and cabling.
Part no. 401727 Profibus master simulator	Can be used to check the sensors functions and to change the slave address. Allows the magnet positions and diagnostic data to be read.

FIELD SETUP SOFTWARE

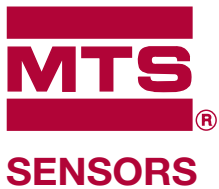| Product	Application
Part no. 551033 G-Series documentation and software CD	Includes G-Series PC setup software (part no: 625060)* G-Series Palm OS software (part no: 625061)*, G-Series User's Manual (part no: 550966) and additional documentation.
Part no. 551052 R-Series documentation and software CD	Includes R-Series PC setup software (part no: 625064)*, parameter files and product documentation.

Note:

* Download software from our website (www.mtssensors.com)

SENSORS