

P o s i t i o n S e n s o r s a n d S y s t e m s

T e m p o s o n i c s I I

O r d e r i n g G u i d e

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**For 24-hour Technical Assistance Call
1-800-633-7609**

TEMPOSONICS II BUILD-TO-ORDER UNITS

How to Order Temposonics II Position Sensors



Temposonics II Transducer, Standard

Style

- RB** = STANDARD, 3/8 in. SST rod, screw on integral connector
- RC** = 3/8 in. SST rod, quarter turn integral connector
- RO** = 3/8 in. SST rod, 5 ft. integral cable, pigtail connection

The following styles (R1 - R3) are deviations of Style RO. Each style includes a 6 or 10 pin connector instead of pigtails, which provide the capability to either retrofit an original Temposonics transducer design with a Temposonics II or to connect directly to an interface module.

- R1** = Style RO with 6 pin connector (P/N 370015) instead of pigtails
STANDARD for Temposonics II transducers with integral cable and connected to an Analog Output Module with MS connectors.
[Also for retrofitting original Temposonics transducer with a greater than 12 inch stroke length (+ interrogation pulse) and connected to an Analog Output Module]
- R2** = Style RO with 6 pin integral connector (P/N 370015) instead of pigtails
Used in retrofit situations ONLY.
[For retrofitting original Temposonics transducer with a less than 12 inch stroke length (- interrogation pulse) and connected to an Analog Output Module]
- R3** = Style RO with 10 pin connector (P/N 370160) instead of pigtails
(Available for use with Personality Modules ONLY)

Stroke Length Units

- U** = Inches (U.S. Customary)
- M** = Millimeters (Metric), available in 5 mm increments

Stroke Length

The value to enter depends on stroke length units indicated above.

For example:

- 0120** = 12.0 inches or 120 mm
- 1200** = 120.0 inches or 1200 mm

NOTES:

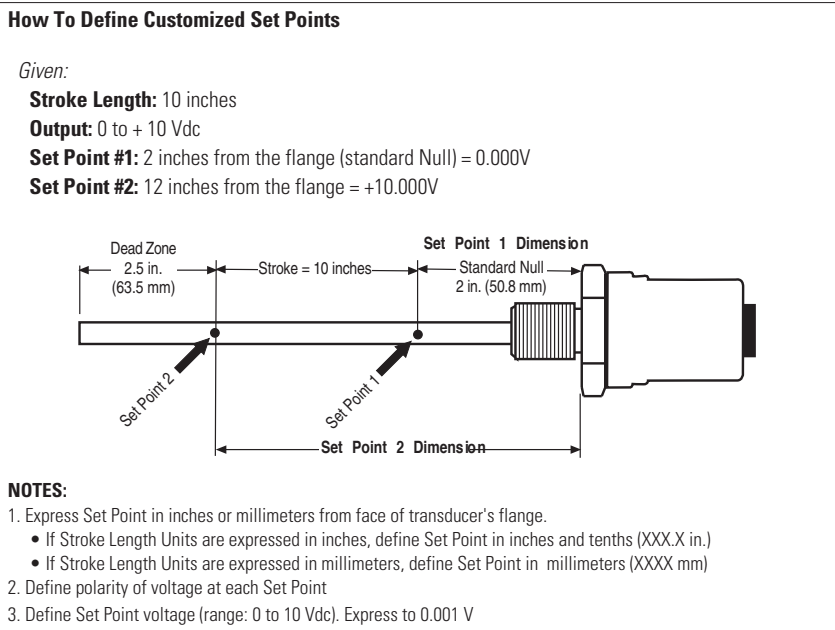
1. All Temposonics II transducers have a positive interrogation pulse.
The original Temposonics transducer had a negative interrogation pulse for stroke length of 12 inches or less and a positive interrogation pulse for stroke lengths of 12.1 inches or longer. In retrofit situations, the extension cable can be configured for a direct replacement. Contact an MTS Applications Engineer for additional details.
2. Temposonics II transducers have a 2.5 inch dead zone at the tip. Previous versions of the Temposonics transducer had either a 5 inch or a 7 inch dead zone; please consider the overall length requirement in your application.
3. Build-to-order units range from 1 to 300 inches, in 1/10th inch increments.

How to Order Temposonics II Transducer with APM

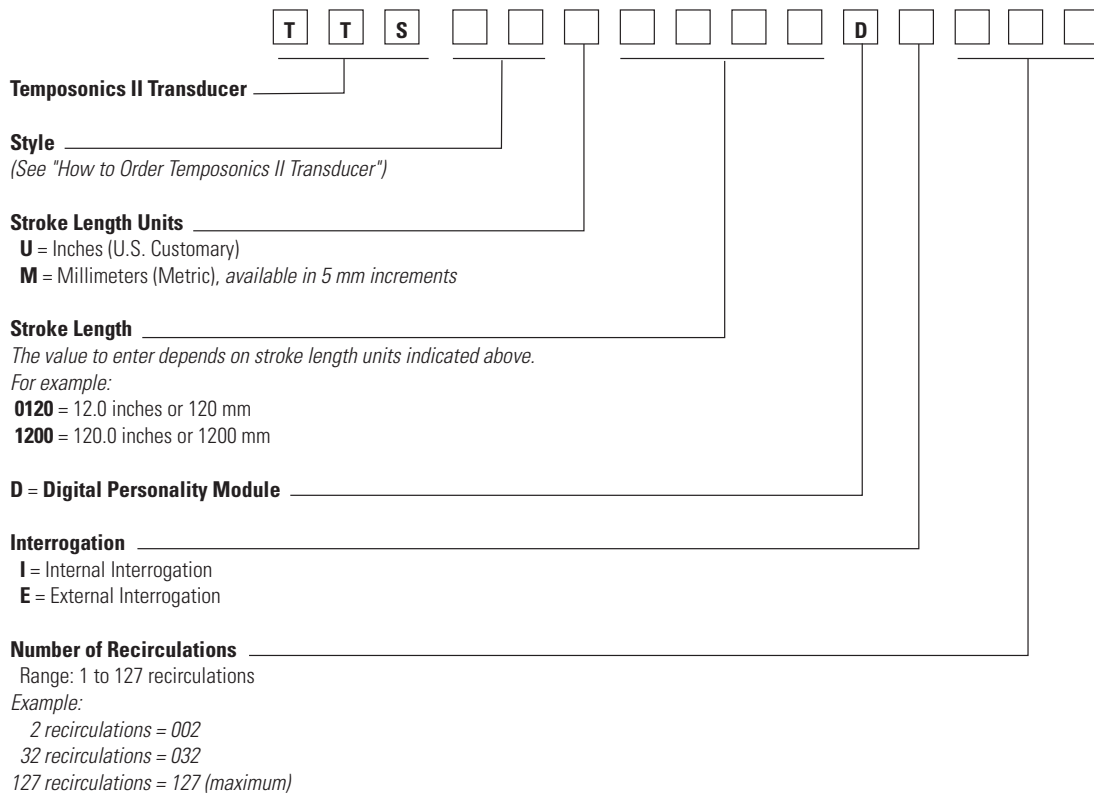
	<div style="display: flex; justify-content: space-around; border-bottom: 1px solid black;"> <div style="border: 1px solid black; padding: 2px 5px;">T</div> <div style="border: 1px solid black; padding: 2px 5px;">T</div> <div style="border: 1px solid black; padding: 2px 5px;">S</div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; padding: 2px 5px;">A</div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px;"></div> </div>
Temposonics II Transducer	
Style <i>(See "How to Order Temposonics II Transducer")</i>	
Stroke Length Units U = Inches (U.S. Customary) M = Millimeters (Metric), <i>available in 5 mm increments</i>	
Stroke Length <i>The value to enter depends on stroke length units indicated above. For example: 0120 = 12.0 inches or 120 mm 1200 = 120.0 inches or 1200 mm</i>	
A = Analog Personality Module	
Output S1 = 0 to +10 Vdc S4 = 0 to +10 Vdc, reverse acting S2 = -10 to +10 Vdc S5 = -10 to +10 Vdc, reverse acting S3 = 0 to -10 Vdc S6 = 0 to -10 Vdc, reverse acting C0 = Build-to-Order, customized set points <i>Set Points must be defined by customer, see below.</i>	
Performance Mode R = Resolution Preferred Mode (0.001 in. resolution, limited to maximum stroke length of 48 inches) B = Balanced Mode (0.003 in. resolution) U = Update Preferred Mode (optimum update time, 0.007 in. resolution)	

- NOTES:**
- Standard Set Points:** Null (zero) is set at 2 inches from flange; Full Scale Set Point is at 2.5 inches from tip of the transducer.

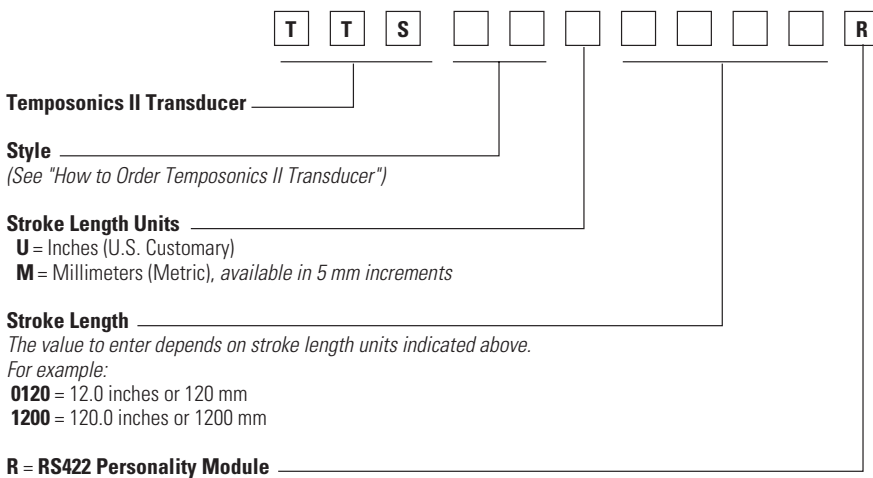
In addition to the model number, zero and full scale set points must also be provided at time of order if a customized sensing range is required. See example below for details on how to define set points.



How to Order Temposonics II Transducer with DPM



5.4 How to Order Temposonics II Transducer with RPM



How to Order Analog Output Module

	AOM	Options	Code	Tempsonics II	Code
<p>Enclosure Style _____</p> <ul style="list-style-type: none"> • 31 = Strain relief connectors (standard) • 32 = 5 and 6 pin MS connectors <i>(mating connectors required, order separately)</i> • 35 = Plug-in card, can mount in rack <i>(to mount, use 15-pin edge connector: P/N 370034, or edge card holder: P/N 370170)</i> <p>Displacement Output _____ <i>(Standard, select one)</i></p> <ul style="list-style-type: none"> • 10 = 0 to 10 Vdc • 20 = 0 to 10 Vdc, reverse acting • 30 = 0 to 5 Vdc • 40 = 0 to 5 Vdc, reverse acting • 50 = -10 Vdc to + 10 Vdc • 60 = -10 Vdc to + 10 Vdc, reverse acting • 70 = -5 to + 5 Vdc • 80 = -5 Vdc to + 5 Vdc, reverse acting • 01 = 0 to -10 Vdc • 02 = 0 to -10 Vdc, reverse acting <p>DC Power Supply Requirement Options _____</p> <ul style="list-style-type: none"> • 0 = ± 15 Vdc (Standard) • 1 = 24 Vdc (Option) <p>Velocity Option _____</p> <ul style="list-style-type: none"> • 0 = None (Standard) <p>Options:</p> <ul style="list-style-type: none"> • 1 = Forward acting voltage output • 2 = Reverse acting voltage output • 3 = Forward acting current output (grounded) • 4 = Reverse acting current output (grounded) • 5 = Forward acting current output (ungrounded) • 6 = Reverse acting current output (ungrounded) <p>Maximum Velocity _____</p> <ul style="list-style-type: none"> • _____ = Maximum Velocity (range 1 to 400 inches/second or 0.01 to 9.99 meters/second) <p><i>This three digit velocity code represents either inches per second or meters per second. The code corresponds to the 'Unit of Measurement' selected.</i></p> <p>Style _____</p> <ul style="list-style-type: none"> • (Refer to pages 13 and 14 for description of choices: RB, RC, RO, R1, R2, R3) <p>Unit of Measurement _____</p> <ul style="list-style-type: none"> • U = Inches (U. S. Customary) • M = Millimeters (Metric), lengths available in 5 mm increments <p>Stroke Length _____</p> <ul style="list-style-type: none"> • _____ = Length <p><i>Range: 1 to 300.0 in. in 0.1 in. increments or 25 to 7620 mm in 5 mm increments.</i></p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • 0120 = 12.0 inches or 120 mm • 0600 = 60.0 inches or 600 mm 	□	□	□	□	□

Consult Applications Engineering when ordering velocity output options

Mating Connectors for Enclosure Style '32'

- 6-pin MS connector (female): 370015
- 5-pin MS connector (female): 370017

NOTE: AOM Options

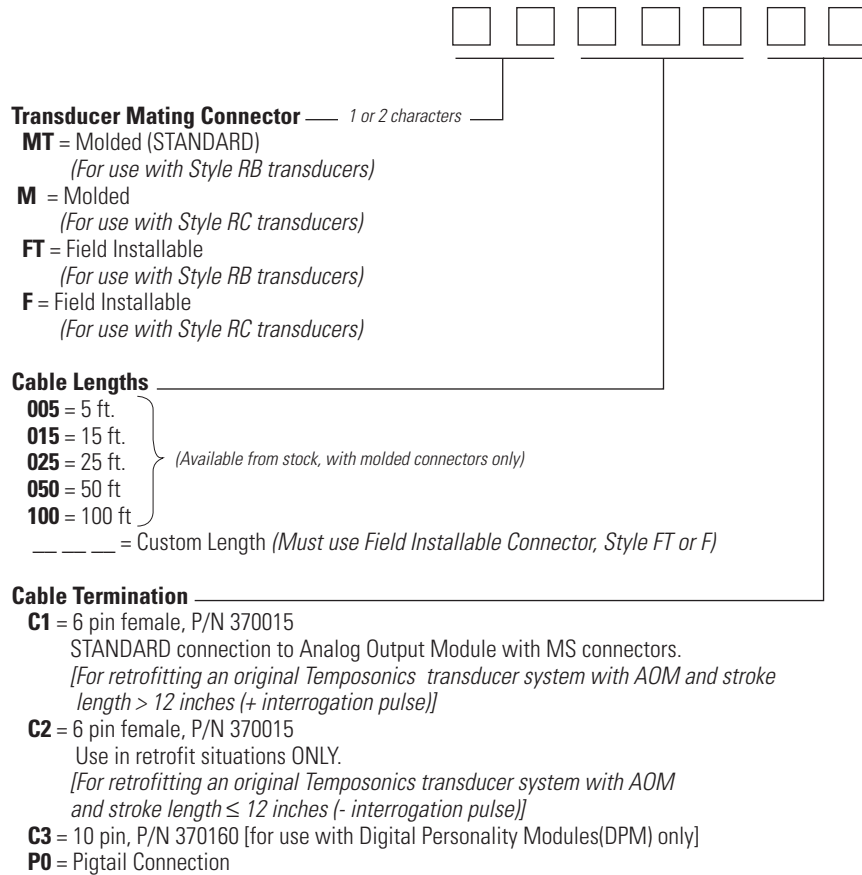
Only two (2) options may be selected per AOM.

Valid Output Combinations (Displacement. & Velocity)
The chart below indicates what combinations of current output and velocity output are valid.

Current Output Codes	Velocity Output Codes
03	5
04	6
05	3
06	4

ACCESSORIES

Extension Cables for Temposonics II Transducers



Transducer Accessories

Part	Description	Part Number
Replacement Fluoroelastomer O-Ring	Seals Temposonics transducers in hydraulic cylinders. For use on 3/4-16 thread.	560315
Hex Nut Jam	3/4-16, 303 stainless steel thin hex lock w/nylon insert	500015
Magnet Spacer	Non-ferrous aluminum spacer, 1/8 in. thickness, use with standard magnet (P/N 201542)	400633
Magnet Mounting Screws	Stainless steel #6-32 x 7/8 in. SS Phillips HD screw	560357
Connector Kit	Field Installable 10 pin female connector <i>(For use with Style RB and RC transducers)</i>	400755-3
Connector	Environmental, 10 pin male MS connector	370160
Cable	Low capacitance, 5 twisted pair, 24 AWG w/overall shield and drain wire	530018



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