

MDT422 Pressure Sensors

AMPLIFIED TRANSDUCERS



Description

Dynisco's MDT-series amplified transducers convert process pressure into an amplified signal for long distance transmission free of noise interference. All models are available in 4-20 mA, 0-5 VDC and 0-10 VDC, 2-, 3- and 4-wire high level outputs. Many of the features found in Dynisco's standard MDA-series have been incorporated into the amplified MDT-series, including proven bonded strain gauge construction for stable operation, a flexible armored capillary between the rigid stem and the amplifier housing and a flush diaphragm. Another advantage is the electrical built-in calibration.

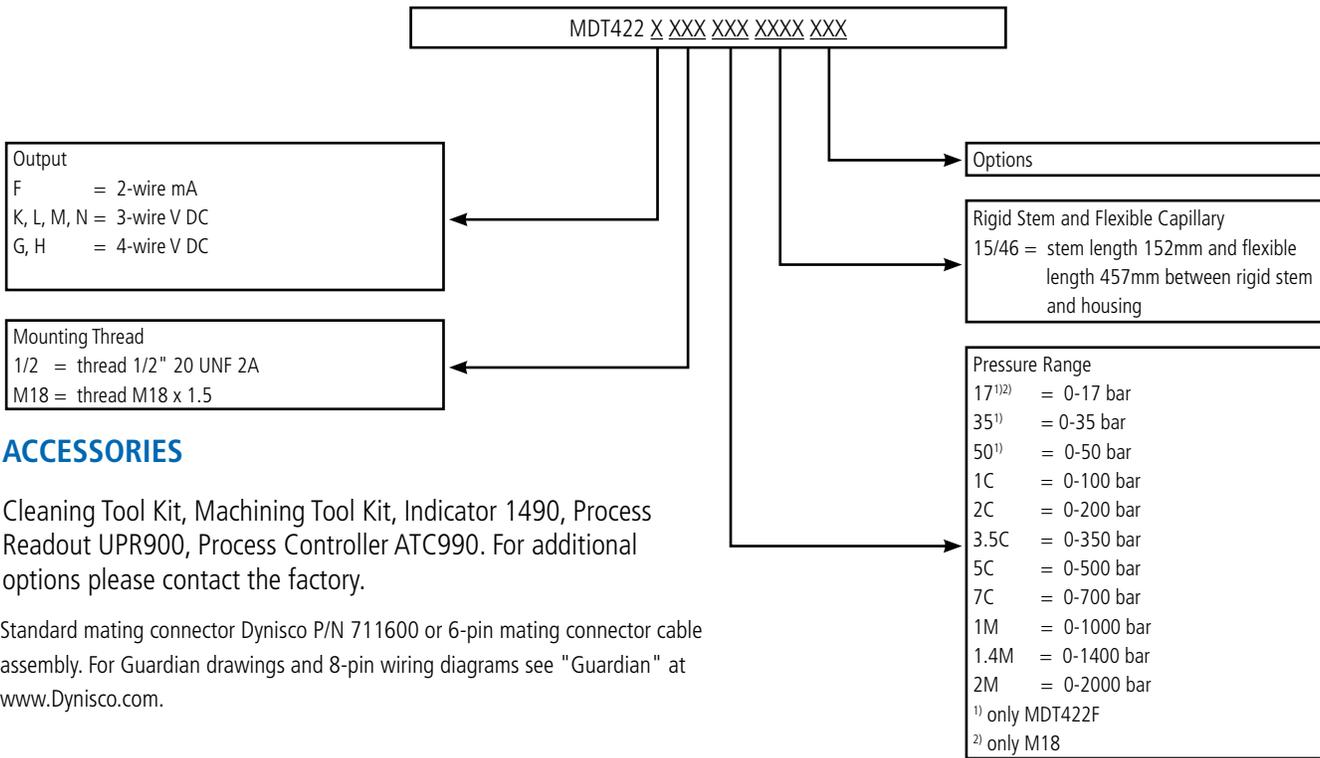
Features

- Installation for media temperature up to 400°C
- Flexible capillary between rigid stem and housing
- Electrical built-in calibration
- Various high level outputs
- 4-20 mA, 2-wire 0-10 V DC, 3/4-wire and other volt output signal ranges

Electrical Characteristics	
Configuration:	Four-arm Wheatstone bridge strain gage (DMS)
Internal Shunt-Calibration:	80% of full scale $\pm 5\%$
Leakage Resistance:	1000 M Ω at 50 V DC
MDT422F 2-wire mA:	
Output Signal:	4-20 mA
Supply Voltage:	10-36 V DC
Zero Balance:	2% $\pm 5\%$ of full scale adjustable
Load Resistance:	Maximum 1.2 Ω at 36 V
MDT422 K/L/M/N 3-wire V DC	
Output Signal:	K: 0-5 V DC, M: 1-6 V DC, L: 0-10 V DC, N: 1-11 V DC
Supply Voltage:	15-32 V DC
Load Resistance:	K: >5 k Ω , M: >5 k Ω , L: >10 k Ω , N: >10 k Ω
MDT422 G/H	
Output Signal:	G: 0-5 V DC, H: 0-10 V DC
Supply Voltage:	dual ± 10 to ± 16 V DC single 19-32 V DC
Load Resistance:	G: >5 k Ω , H: >10 k Ω

Temperature Influence	
Diaphragm:	
Max. Temperature:	400°C
Zero Shift (due to temperature change):	MDT422 X < 0.2 bar/10°C MDT462 X < 0.4 bar/10°C
Housing:	
Max. Temperature:	85°C
Zero Shift (due to temperature change):	$\pm 0.2\%$ f.s.v./10°C
Sensitivity Shift (due to temperature change):	MDT422 X $\pm 0.1\%$ f.s.v./10°C up to 50 bar $\pm 0.2\%$ f.s.v./10°C MDT462 X $\pm 0.4\%$ f.s.v./10°C
Technical Data and Operating Data	
Pressure Range:	0 - 17 bar to 0 - 2000 bar
Accuracy:	MDT 422 X $\pm 0.5\%$ f.s.v. up to 50 bar $\pm 1\%$ f.s.v. MDT 462 X $\pm 1.0\%$ f.s.v.
Repeatability:	MDT 422 $\pm 0.1\%$ f.s.v. up to 50 bar $\pm 0.2\%$ f.s.v. MDT 462 X $\pm 0.2\%$ f.s.v.
Resolution:	infinite
Maximum Overload (without influencing operating data):	2 x pressure range for range 1000 and 1400 bar max. 1750 bar and max. 2400 bar for range 2000 bar
Burst Pressure:	6 x pressure range max. 3000 bar
Material in Contact with Media:	15-5 Mat. No. 1.4545, DyMAX coated

Ordering Guide for MDT422 Pressure Sensors

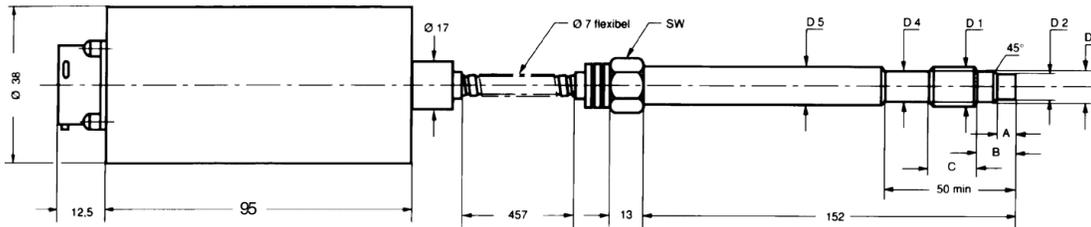


ACCESSORIES

Cleaning Tool Kit, Machining Tool Kit, Indicator 1490, Process Readout UPR900, Process Controller ATC990. For additional options please contact the factory.

Standard mating connector Dynisco P/N 711600 or 6-pin mating connector cable assembly. For Guardian drawings and 8-pin wiring diagrams see "Guardian" at www.Dynisco.com.

Dimensions



D1	D2	D3	D4	D5	A	B	C	SW
1/2"-20UNF-2A	7,8 ^{-0,05}	10,5 ^{-0,05}	11 ^{-0,5}	12,5	5,3 ^{+0,25}	11	16	16
M18 x 1,5	10 ^{-0,05}	16 ^{-0,1}	16 ^{-0,5}	18	6 ^{-0,25}	14	20	19

All dimensions are inches (mm) unless otherwise specified.



All dimensions are inches (mm) unless otherwise specified.
 ©2016. Dynisco reserves the right to make changes without notice.
 Refer to www.dynisco.com for access to Operator Manual and other support documentation.
 DSMDT422
 Rev: 0429

www.dynisco.com

Dynisco
 38 Forge Parkway
 Franklin, MA 02038
 USA
 Hotline 1-800-Dynisco
www.dynisco.com
 Phone +1 508 541 9400
 Fax +1 508 541 6206
 Email infoinst@dynisco.com

Dynisco Europe, GmbH
 Pfaffenstr. 21
 74078 Hellbronn
 Germany
 Phone +49 7131 297 0
 Fax +49 7131 297 166
 Email dyniscoeurope@dynisco.com

Dynisco Shanghai
 Building 7A, No. 568
 Longpan Rd Malu
 Jiading, 201801 China
 Phone +86 21 34074072-819
 Toll Free +86 400 728 9117
 Fax +86 21 34074025