

MDT 460 | 462 | TDT 463 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. MDT 420 series of sensors 422 | TDT 432 are sensors with an accuracy of $\pm 1.0\%$ f.s.v, which are ideal for applications requiring accuracy, easy installation, repeatability and reliability. This series provides special features for applications in high noise and interference environments. It is also possible to use unshielded cables for remote transmission without interference. The sensor can be reset locally or remotely.

A combined TDT sensor design with optional thermocouple or RTD is available to ensure simultaneous temperature measurement in one process connection.

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

Technical Data and Operating Data			
Pressure Range:		0 - 17 bar to 0 - 2000 bar	
Accuracy:		± 1.0 f.s.v. up to 50 bar $\pm 1\%$ f.s.v.	
Repeatability:		$\pm 0.2\%$ 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	
Electrical Characteristics			
Configuration:		Four-arm Wheatstone bridge strain gage (DMS)	
Internal Shunt-Calibration:		80% fsv $\pm 1\%$	
Leakage Resistance:		1000 M Ω at 50 V DC	
MDT4X0F 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
MDT4X0 K/L/M/N 3-wire V DC			
Output Signal:	K: 0-5 Vdc M: 1-6 Vdc L: 0-10 Vdc N: 1-11 Vdc	Supply Voltage:	15-32 V DC
Load Resistance:	K: >5 k Ω , M: >5 k Ω , L: 10 k Ω , N: >10 k Ω		
MDT4X2 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):		< 0.4 bar/10°C	
Housing: Max. Temperature:		85°C	
Zero Shift (due to temperature change):		$\pm 0.2\%$ FSO/10°C	
Sensitivity Shift (due to temperature change):		$\pm 0.4\%$ f.s.v./10°C	
Approvals and certificates			
CE:	Directive 2004/108 / EC		
ISO:	ISO 9001: 2008 production environment		
PL'c':	EN ISO 13849-1 meeting the performance requirements of the safety part of the control system for safety system safety level "c" (PL'c) when installed according to category 1		
SIL2:	Security integrity level 2		

Objednací kód

X DT4XXF- XX - XXX - XX/XX - XXX

Temperature sensor:
M = Without thermocouple
T = Thermocouple type J

Sensor construction:
60 - Sensor with rigid stem
62 - Sensor with flexible capillary
63 - Sensor with flexible capillary and temperature sensor

Process connection:
1/2 = thread 1/2 "20 UNF
M10 = M10 x 1.5
M18 = M18 x 1.5

Pressure units:
17¹⁾²⁾ = 0-17 bar
35¹⁾ = 0-35 bar
50¹⁾ = 0-50 bar
1C = 0-100 bar
2C = 0-200 bar
3.5C = 0-350 bar
5C = 0-500 bar
7C = 0-700 bar
1M = 0-1000 bar
1.4M = 0-1400 bar
2M = 0-2000 bar
1) MDT422F only
2) only M18

Security and certification:
SIL2 = Security Integrity Level 2
GCx = Guardian safety relay in% f.s.v.

Flexible capillary length:
Blank = without flexible capillary
46 = 45.7 cm
76 = 76.2 cm

Rigid stem length:
7.6 = 7.6 cm
15 = 15.2 cm
23 = 23.9 cm
32 = 32 cm
46 = 46 cm

Standard connector Dynisco P / N 711600 - 6-pin bayonet cable connector. Transmission may be affected by the use of non-original parts. Do not hesitate to contact us for any non-standard and custom requirements.



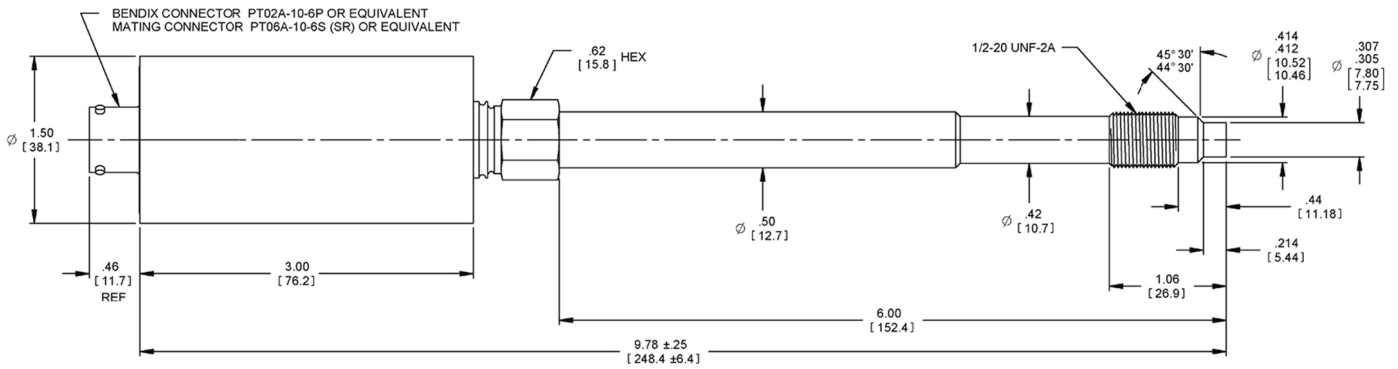
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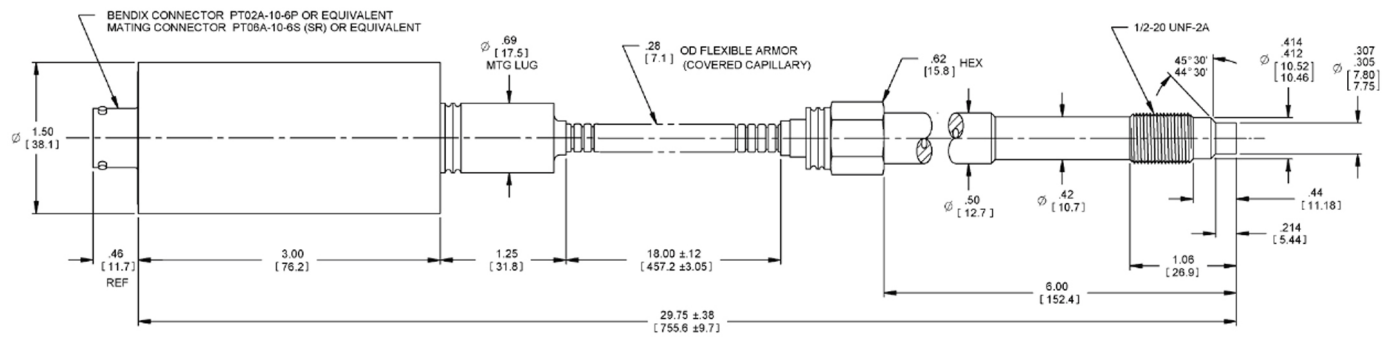


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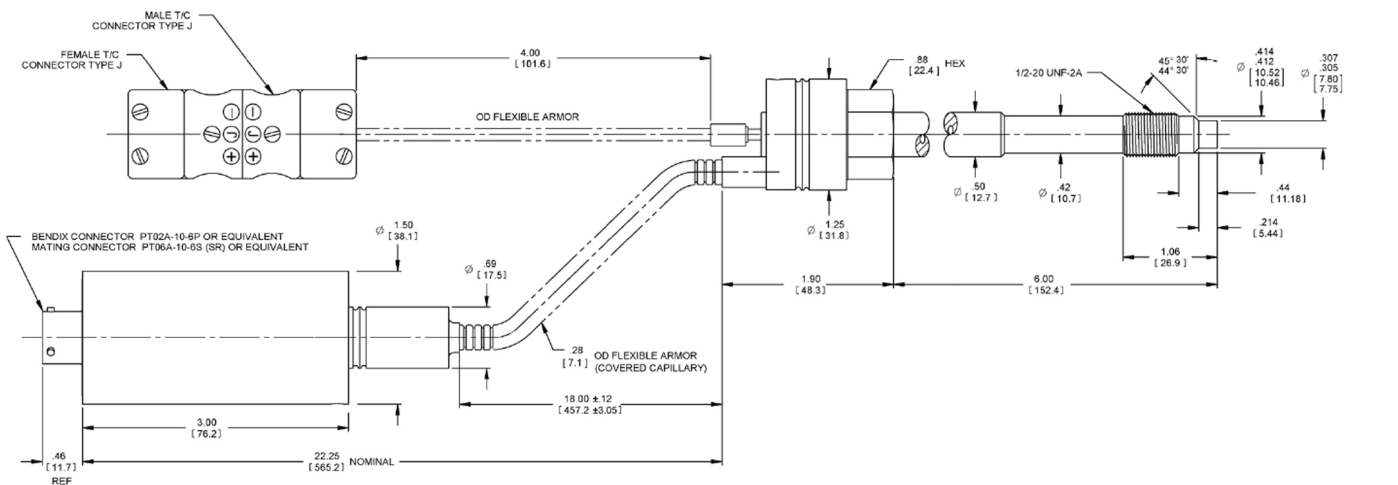
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