Dynisco

Model
TDT432 X
TDT463 X

CE

Melt pressure transmitter for pressure and temperature measurement in hot media

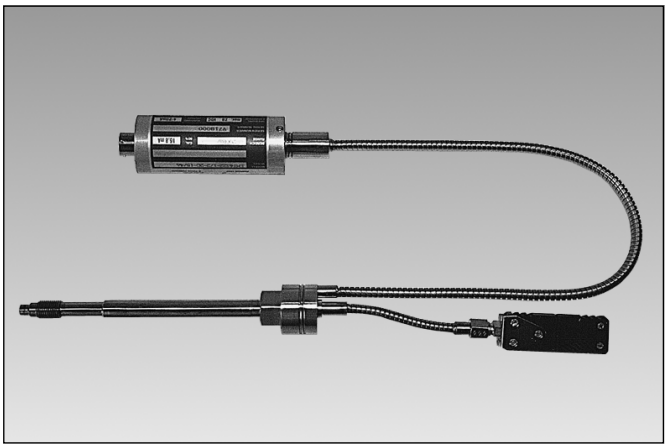
Description

Dyniscos 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.
The TDT-series features an integral thermocouple that allows pressure and temperature to be measured in a single sensor.

Many of the features found in Dyniscos 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
- Integral thermocouple for simultaneous temperature measurement at the media
- Standard thermocouple type J
- 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 / Operating Data

Pressure range	0 - 17 bar to 0 - 2000 bar
Temperature measurement	Thermocouple Type J
Accuracy	TDT432 X ± 0.5 % f.s.v. - up to 50 bar ± 1 % f.s.v. TDT463 X ± 1 % f.s.v.
Repeatability	TDT432 X ± 0.1 % f.s.v. - up to 50 bar ± 0.2 % f.s.v. TDT463 X ± 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	4-arm Wheatstone bridge strain gauge (DMS)
Internal Shunt-Calibration	80 % of full scale ± 5 %
Leakage resistance	1000 MΩ at 50 V DC
TDT4XXF	**2-wire mA**
Output signal	4 - 20 mA
Supply voltage	10 - 36 V DC
Zero balance	- 2 % / + 5 % of full scale adjustable
Load resistance	Maximum 1,2 kΩ at 36 V
TDT4XX 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	> 5 kΩ / > 5 kΩ > 10 kΩ / > 10 kΩ
TDT4XX G / H	**4-wire V DC**
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	> 5 kΩ / > 10 kΩ

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Temperature influence

Diaphragm

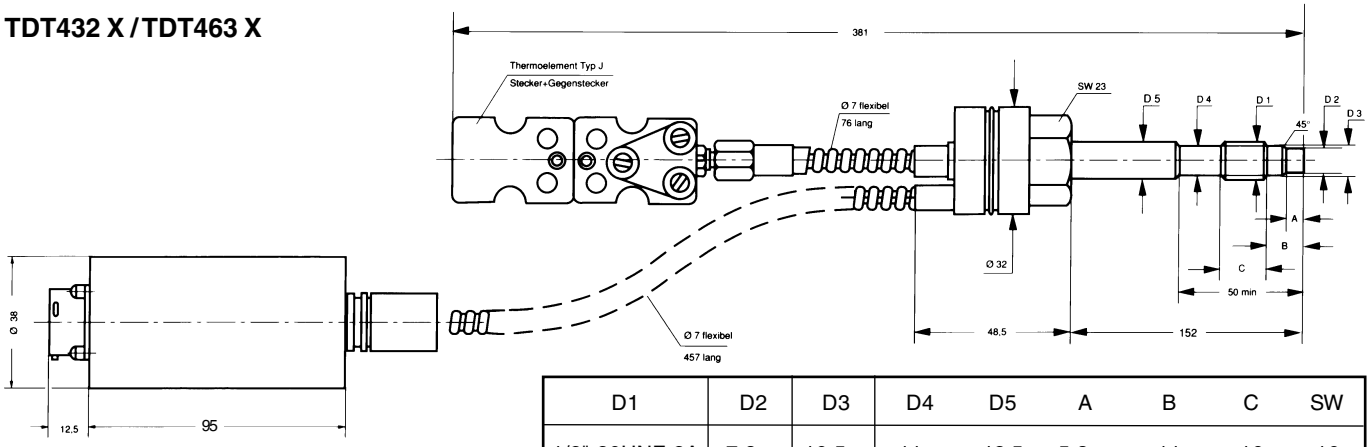
Max. Temperature	400 °C
Zero shift due to temperature change	TDT432 X < 0.2 bar / 10 °C TDT463 X < 0.4 bar / 10 °C

Housing

Max. Temperature	85 °C
Zero shift due to temperature change	± 0.2 % f.s.v. / 10 °C
Sensitivity shift due to temperature change	TDT432 X ±0.1% f.s.v./10 °C -up to 50 bar ± 0.2% f.s.v./10 °C TDT463 X ±0.4% f.s.v./10 °C

Dimensions

TDT432 X / TDT463 X



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

Accessories

Cleaning Tool Kit, Machining Tool Kit, Process Readout UPR700, Process Controller ATC770

Order specifications

TDT4XX X - XXX - XXX - XX - XXX

Output
F = 2-wire mA
K, L, M, N = 3-wire V DC
G, H = 4-wire V DC

Mounting Thread
1/2 = Thread 1/2" 20 UNF 2A
M18 = Thread M18 x 1,5

Pressure range

17[1) 2)] = 0 - 17 bar	**2C** = 0 - 200 bar	**1M** = 0 - 1000 bar
35[1)] = 0 - 35 bar	**3,5C** = 0 - 350 bar	**1,4M** = 0 - 1400 bar
50[1)] = 0 - 50 bar	**5C** = 0 - 500 bar	**2M** = 0 - 2000 bar
1C = 0 - 100 bar	**7C** = 0 - 700 bar	[1)] only TDT432 X [2)] only M18

Options

Rigid stem / flexible stem
15/46 = Stem length 152 mm and flexible length 457 mm between rigid stem and housing

Conversion table psi/bar and inch/mm on page 141.

Options on page 136.