PT2-DF

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DIFFERENTIAL PRESSURE TRANSMITTER

Version: PT2-DF.1-05-2025

PT2-DF

SPECIFICATIONS

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APPLICATIONS

Marine and Industrial applications
Exhaust gas from diesel engines
Fuel filters
Machine building
Oil lubrication
Pneumatic systems
Cooling water and refrigeration plants

APROVALS AND CERTIFICATIONS

ATEX (Certificate number = Ex Veritas 21ATEX0865X)
IECEx (Certificate number = IECEx EXV 21.0037X)
ATEX and IECEx certified Zone 0 and Zone 20 Category 1
II1G Ex ia IIC T4 Ga
II1D Ex ia IIIC T200 107°C Da

FEATURES

Reliable and accurate differential pressure measure-ment
Differential pressure ranges from 70mbar to 25bar
Overpressure 2xFS of differential. No negative pres-sure allowed. Other on request
Accuracy (non-linearity) ≤ 0.2 % of span
Working temperature -40 to 85C connector version
Working temperature -40 to 70C cable version
Supply voltage 11 to 28VDC
Output 4 to 20mA
Process Connection G1/4", NPT1/4 male and female, other on request
On request two pressure points test certificate
Stainless steel material AISI316, Hastelloy C276 other on reqest
One piece one sensor design
Designed for harsh environments

TEMPERATURE SPECIFICATIONS

Media temperature	-40 to 80 C
Storage temperature	-40 to 80 C

OPERATION CONDITIONS

Shock Resistance Vibration Resistance	2-13.2Hz at 3 1mm and from 13.2-100Hz at 0.7g 2-25Hz at 3 1mm and from 25-100Hz at 4.0g

ELECTRICAL SPECIFICATIONS

Supply voltage	11 to 28 VDC	
Output	4...20 mA	(2 wires connection)

IP PROTECTION

For all connector versions	IP66

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Delta Velestino, 375 00 Magnesia, Greece tel. 0030 2425024248

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MATERIALS

All wetted parts AIS316 other on request
Seal for process connection FKM, FFKM or EPDM

ELECTRICAL SPECIFICATIONS

Reverse polarity protection	Yes
Output Impedance	>10k Ohms
Max load in Ohms	≤ (supply voltage - 11 V) / 0.021 A - (cable length per m x 0.15 Ohms)

PRESSURE RANGES

PSI
Bar
other on reqest

PARAMETERS ACCORDING TO ATEX-IECEX

Entity parameters	Values for gas atmospheres	Entity parameters for dust atmospheres
Ui	28 V	28 V
Ii	119 mA	88 mA
Pi	833 mW	616 mW
Ci	10 nF	10 nF
Li	1.2 uH	1.2 uH
C & L per unit length (cable version)	150 pF/m and 1.1 uH/m	150 pF/m and 1.1 uH/m

TESTS AND SPECIFICATIONS

Environmental	Cold: EN60068-2-1 Dry Heat: EN60068-2-2 Damp heat: EN60068-2-30 Vibration: EN60068-2-6,
Electrical installations	EN 60092-504
Static Inclination	EN 60092-504
Dynamic Inclination	EN 60092-504
Electrostatic Discharge	EN 61000-4-2
Radiated RF Immunity	EN 61000-4-3
Fast Burst Transients	EN 61000-4-4
Conducted RF Immunity	EN 61000-4-6
Radiated Emissions	EN 55016-2-3
Power Supply Variation	EN 60092-504
Power Supply Failure	EN 60945
Insulation Resistance	EN 60945

ACCURACY SPECIFICATIONS

Accuracy (non-linearity)	≤ 0.2 % of span at 1.
Stability (1 year)	0.2% FS, typical
Over range Protection	2X Rated Pressure
Burst Pressure	5X Rated Pressure
Pressure Cycles	> 100 million at full pressure

1.Power supply: 24VDC, Temperature: 18 to 24C, Mount position: Vertical, Humidity: 45 to 75%

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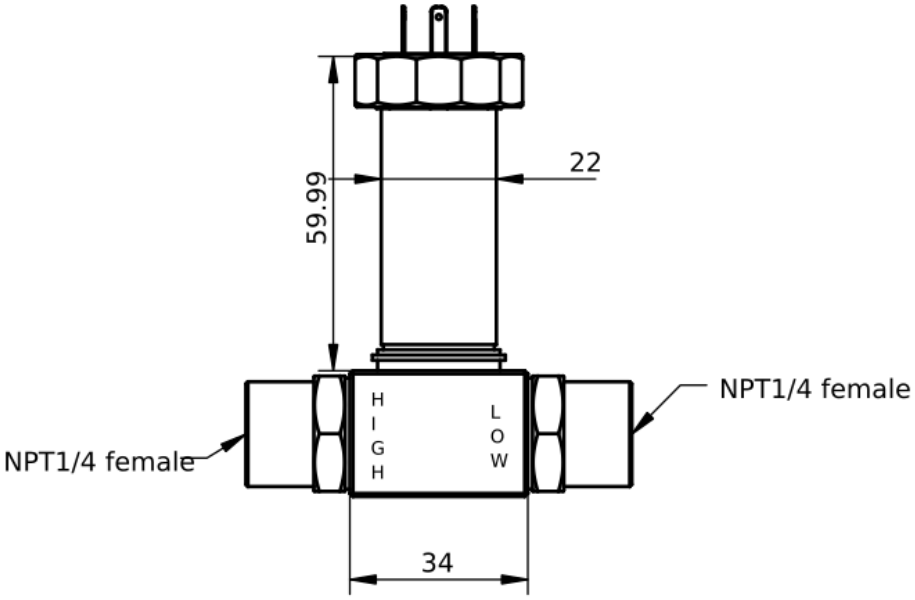
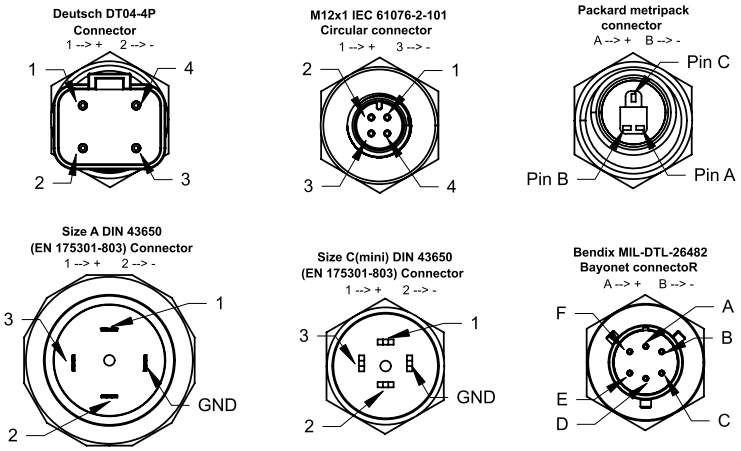
DIMENTIONS ACCORDING TO ELECTRICAL CONNNECOTRS AND THREADS



ELECTRICAL CONNNECTIONS



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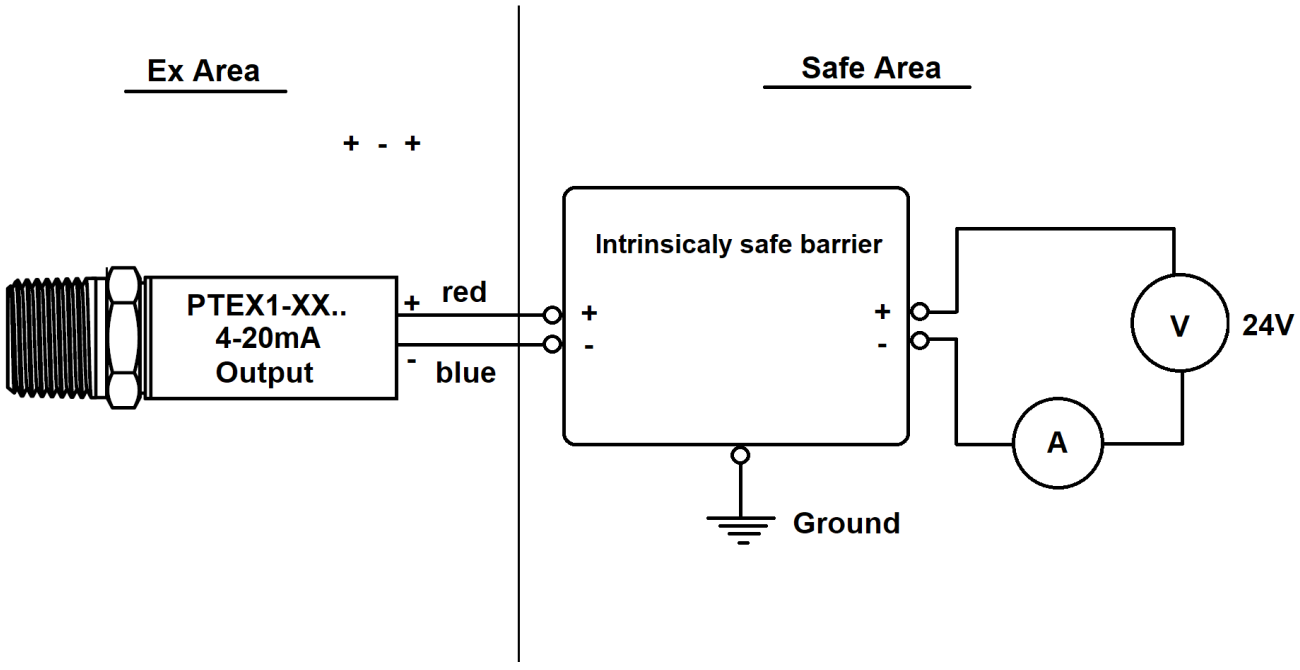
INTRISICALLY SAFE BARRIER CONNECTION

Sensor must not exceed upper or lower limits of the barrier of the entity parameters (following conditions must be satisfied):

Checking of the voltage: Uo (barrier) ≤ Ui (sensor in hazardous area)
Checking of current: Io (barrier) ≤ Ii (sensor in hazardous area)
Checking of power: Po (barrier) ≤ Pi (sensor in hazardous area)
Checking of capacitance: Cc (cable) + Ci (sensor in hazardous area) ≤ Co (barrier)
Checking of inductance: Lc + Li (sensor in hazardous area) ≤ Lo (barrier)

Entity parameters: Please see at page 3



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ORDER CODE

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ORDER CODE FOR PT2-DF

APPROVAL CHOICE								
LR (marine type approval)	LR							
LR - IECEX - ATEX - CE	Ex-LR							
ELECTRICAL CONNECTION CHOICE								
Connector		CO						
Cable		CA						
ELECTRICAL CONNECTION								
Size A DIN 43650 (EN 175301-803) Connector			SAD					
Size C(mini) DIN 43650 (EN 175301-803) Connector			SCD					
Packard metripack 150 connector			PAC					
Deutsch DT04-4P			DEU					
M12x1 IEC 61076-2-101 Circular connector			M12					
Bendix MIL-DTL-26482 Bayonet connector			BEN					
Other connector on request			XXX					
OUTPUT								
4...20 mA (2 wires connection)				420A				
PRESURE UNITS								
Bar					B			
PSI					P			
Other pressure unit on request					-			
DIFFERENTIAL PRESURE RANGE								
0 to 70mbar						070m		
0 to 20bar						0020		
Other pressure reanges on request						----		
Wetted parts Material								
AISI 316							6	
Hastelloy C276							HAS	
Other material on request							---	
PROCESS CONNECTIONS								
NPT1/4" female								N14F
NPT1/4" male								N14M
G1/4" female								G14F
Other connection on request								XXX

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