PTEX1-CO

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PRESSURE

TRANSMITTER

Version: PTEX1.2CO-05-2022

PTEX1-CO

SPECIFICATIONS

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APPLICATIONS

Marine and Industrial applications
Exhaust gas from diesel engines
Oil and gas , Fuel tank
LNG and LPG
Hydrogen , pressurized tank
Machine building
Oil lubrication and hydraulic oil
Pneumatic systems
Cooling water and refrigeration plants
Pumps
Balast tank

FEATURES

Reliable and accurate pressure measurement
Measuring ranges from -1 to 9 bar, to 0 to 600bar other on request
Accuracy (non-linearity) ≤ 0.5 % 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", G1/2", NPT1/2", NPT1/4, 7/16-20UNF, F250C
On request two pressure points test certificate
Stainless steel material AISI316, Inconel 718, Hastelloy C276 other on reqest
One piece one sensor design
Designed for harsh environments
500V insulation tested

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 T_{200} 107°C Da
Type approval Lloyd's Register (Certificate number = 17/00042)

TEMPERATURE SPECIFICATIONS

Media temperature cable version	-40 to 80 C
Media temperature connector version	-40 to 80 C
Storage temperature cable version	-40 to 70 C
Storage temperature connector version	-40 to 80 C
Max temperature cable version	70C
Max temperature connector version	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
For cable version	IP68 3bar

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MATERIALS

All wetted parts AIS316 other on request (ex. Inconel)
Seal for process connection FKM, FFKM or EPDM
PUR jacket cable (resistant to various oil)
F46 (FEP) outer jacket cable (resistant to acids and alkali)
Connector material for plastic PA+30%GF and 316 for metallic

PRESSURE RANGES

PSI
Bar
other on reqest

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

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)

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

ACCURACY SPECIFICATIONS

Accuracy (non-linearity)	≤ 0.5 % of span at 1.
Temperature error every 10C	≤ 0.1 % of span
Hysteresis and repeatability	≤ 0.2 % of span
Signal Noise error	≤ 0.3 % of span
Temperature error -40 to 15C and 34 to 80C	≤ 1.5 % of span
Stability (1 year)	0.25% 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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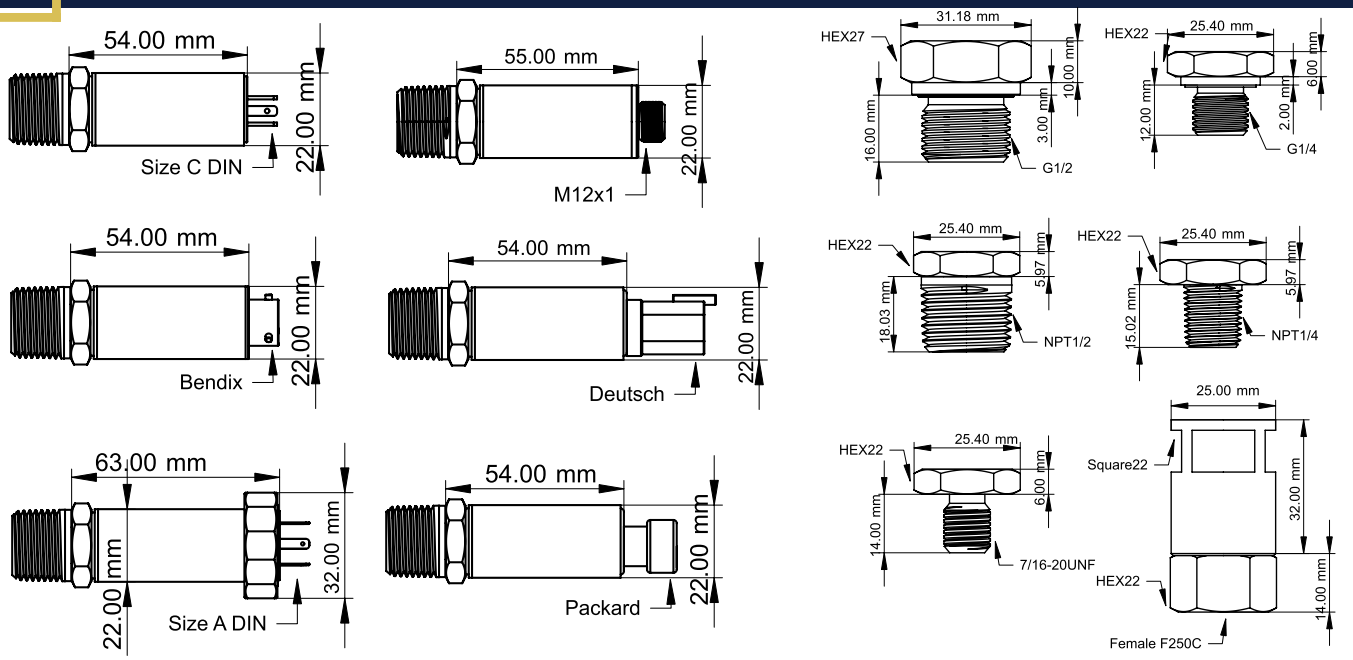
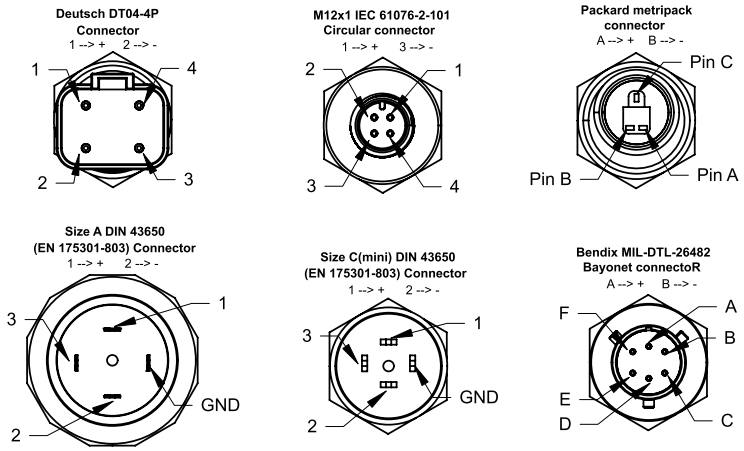
DIMENTIONS ACCORDING TO ELECTRICAL CONNNECOTRS AND THREADS



ELECTRICAL CONNNECTIONS



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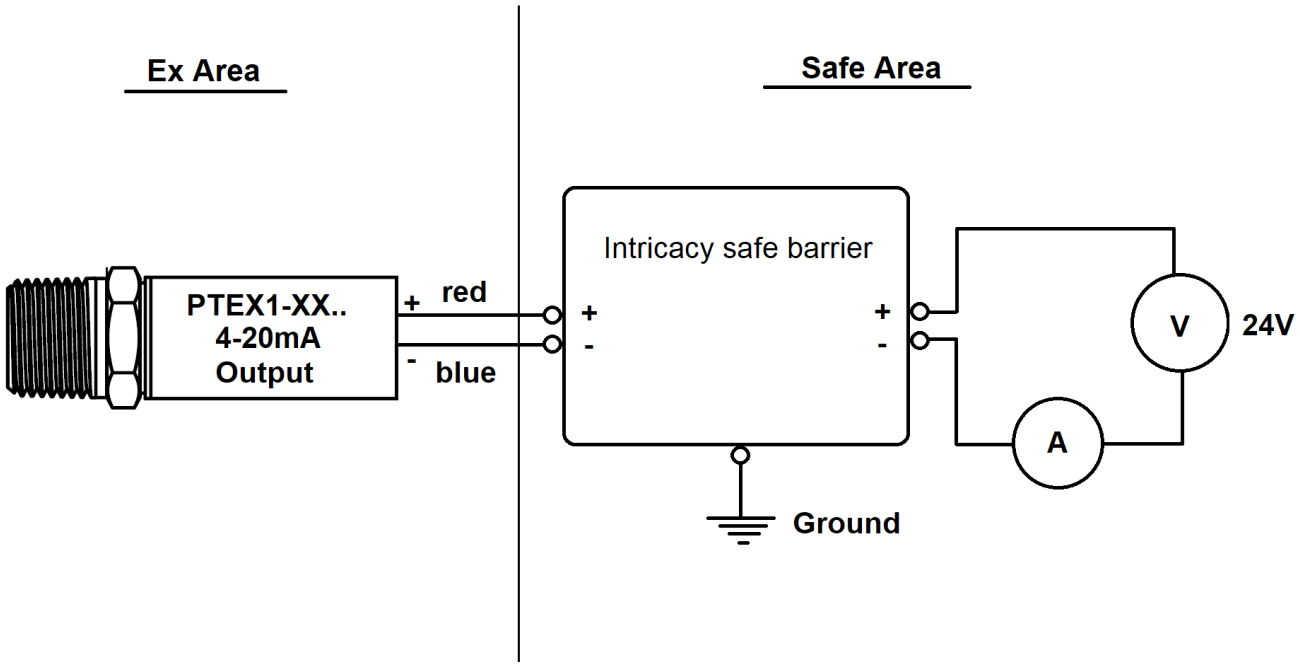
INTRISICALLY SAFE BARRIER CONNECTION

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 PTEX1

ELECTRICAL CONNECTION CHOISE							
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				-			
PRESURE RANGES							
-1 to 0 bar					V100		
0 to 5 bar					0001		
0 to 5 psi					0005		
Other pressure reanges on request					----		
Wetted parts Material							
AISI 316						6	
Inconel 718						INC	
Hastelloy C276						HAS	
Other material on request						---	
PROCESS CONNECTION							
G1/4"							G14
G1/2"							G12
NPT1/4"							N14
NPT1/2"							N12
7/16-20UNF							716U
F250C							F25
Other connection on request							XXX

ORDERING EXAMPLE 1: PTEX1-CO-SAD-420A-B-0010-6-N12
Pressure transmitter with 0-10bar range, 4-20mA output, Size A DIN 43650 (EN 175301-803) Connector, wated parts material AISI316 and process connection NPT1/2"

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