



### MAIN FEATURES

- Pressure ranges: 0-35 to 0-1000bar / 0-500 to 0-15000psi
- Extensimetric measurement principle with Wheatstone bridge
- Precision:  $\leq \pm 0.25\%$  FSO (H);  $\leq \pm 0.5\%$  FSO (M)
- Calibration signal 80% FSO internally generated
- Filling with FDA-approved oil CFR 178.3620 and CFR 178.878
- Completely interchangeable with all existing products
- Protection level: IP65 (6-pin connector)
- Standard threading 1/2-20UNF, M18x1.5, other versions on request
- 17-7 PH stainless steel diaphragm with GTP

**WX0** The rigid rod configuration provides fast and easy installation.

**WX1** The flexible rod configuration is suitable for applications demanding greater thermal isolation and where installation would otherwise be difficult.

**WX2** This configuration lets you measure process pressure and temperature at the same point with a single installation.

**WX3** The configuration with exposed tip is ideal for applications in limited space.

#### Main intrinsic safety characteristics

Transmitter designed and produced in compliance with Directive 94/9/CE ATEX and according to European standards. For the second group (II-surfaces), category 1, explosive atmosphere with presence of gases, fumes or mists (G) protection mode Ex ia IIC T5, T4 room temperature -20°C/+55°C/+60°C/+70°C

Maximum voltage	30 V
Maximum current	100 mA
Maximum power	0,75 W
Equivalent inductance (*)	0,23 mH
Equivalent capacity (*)	26 nF

(\*) includes inductance levels and capacity of a cable: (typical L 1microH/m and typical C 100pF/m) with maximum length 15m.

### TECHNICAL SPECIFICATIONS

Rated precision, including effects of Linearity, Repeatability and Hysteresis	<b>H</b> $\leq \pm 0.25\%$ FSO (350...1000 bar) <b>M</b> $\leq \pm 0.5\%$ FSO (35...1000 bar)
Resolution	Infinite
Pressure ranges	0..35 to 0..1000bar 0..500 to 0..15000psi
Maximum applicable pressure	2 x FS 1,5 x FS oltre i 500bar/7500psi
Principle of measurement	Strain gauge
Power supply	12...30Vdc
Maximum input	30mA
Isolation resistance (at 50 Vdc)	>1000 MOhm
Signal at rated pressure (FSO)	20mA
Zero balancing	4mA
Calibration:	Rated pressure Room pressure
	5% FSO min. 10bar (150psi)
Maximum load	see diagram (page 3)
Response time (10 at 90% FSO)	~ 4ms
Output noise (RMS 10-400Hz)	< 0.05% FSO
Calibration signal	80% FSO
Protection against overvoltages and power supply polarity reverse	YES
Protection against pulses injected on output	YES in compliance with 89/336/EEC
Temperature range of Strain Gauge Housing	-20...+70°C -4...158°F
Thermal drift in compensated range: Zero/Calibrat/Sensitivity	< 0.02% FSO/°C < 0.01% FSO/°F
Maximum temperature of diaphragm	315°C 600°F
Influence due to fluid temperature change (zero)	0.04 bar/°C 30 psi/100°F
Standard Material in contact with process medium	Diaphragm: • 17-7PH corrugated diaphragm with GTP Stem • 17-4 PH
Thermocouple (model WX2)	STD: type "J" (isolated junction)
Protection level (with 6-pin female connector installed)	IP65
Electrical connections	6-pin conn. VPT07RA10-6PT (PT02A-10-6P) 8-pin conn. PC02E-12-8P

FSO = Full Scale Output (Signal at rated pressure)

Power at zener barrier or active barrier. For version WX2, the thermocouple must be connected to EX-i circuits with devices assigned to galvanic separation and with protection mode [EX ia] IIC.



EC-Type Examination Certificate number:  
**CESI 02 ATEX 107**



## ELECTRICAL CHARACTERISTICS AND TEMPERATURE CLASSES

MODEL	(*) LEVEL L2	(*) LEVEL L1	TEMPERATURE CLASSES	ROOM TEMPERATURE
WX0	> 165mm	> 125mm	T4	-20...+60°C
WX1	> 665mm	> 625mm	T5 T4	-20...+55°C -20...+70°C
WX2	> 665mm	> 625mm	T5 T4	-20...+55°C -20...+70°C
WX3	> 665mm	> 625mm	T5 T4	-20...+55°C -20...+70°C

(\*) with the level (L) in fig. 1, the table sets the minimum distance that the electrical circuit has to maintain from the block at high temperature.



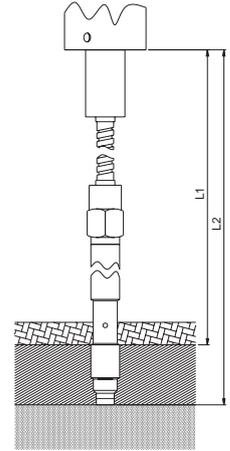
thermal isolating material with adequate thickness for the process temperature



pressure transmitter housing block



fluid at temperature (315°C)

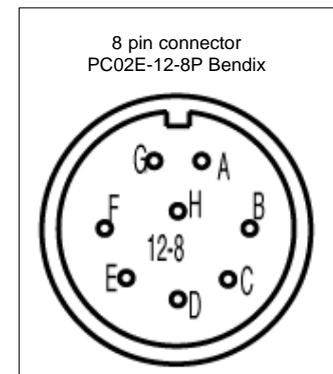
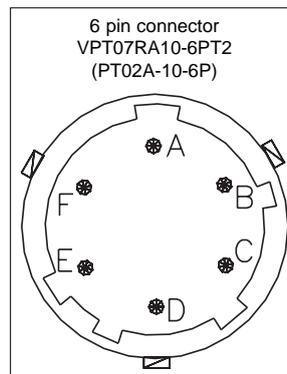


## ELECTRICAL CONNECTIONS

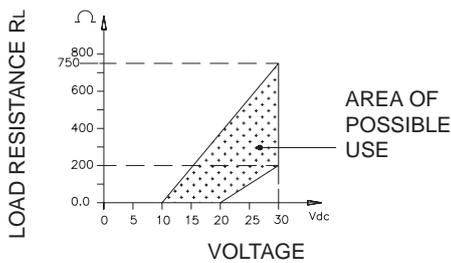
*Output in current (4...20mA 2 wires)*

	6-pin	8-pin
Power supply (12...30Vdc) +	A	B
n.c.	C	A
Signal (4...20mA) -	B	D
n.c.	D	C
Calibration shunt	E - F	E - F
n.c.		G - H

The cable sheathing is connected to the transducer body

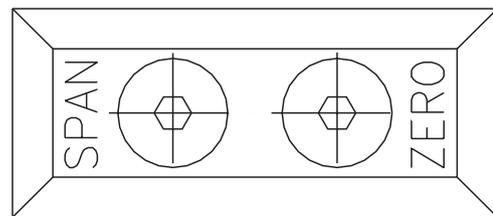


## LOAD DIAGRAM (current output)



The diagram shows the best ratio of load to power supply for transmitters with 4...20mA output. For correct function, use a combination of load resistance and voltage that stays in the shaded zone.

## SETTINGS



The signal setting to room pressure (ZERO) and the setting to rated pressure (SPAN) can be made with the appropriate trimmers, accessed inside the transmitter after removing the two fastening screws.

**The SPAN setting is made during production and must not be changed.**

### Accessories

Fastening bracket  
 Protection plug for 1/2-20 UNF  
 Protection plug for M18x1.5  
 Drill kit for 1/2 -20 UNF  
 Drill kit for M18 x 1.5  
 Cleaning kit for 1/2-20 UNF  
 Cleaning kit for M18x1.5

SF18  
 SC12  
 SC18  
 KF12  
 KF18  
 CT12  
 CT18

### Extension cables

6-pin connector with 3mt Atex cable  
 6-pin connector with 4mt Atex cable  
 6-pin connector with 5mt Atex cable  
 6-pin connector with 10mt Atex cable

PCAV221  
 PCAV104  
 PCAV105  
 PCAV106

**Thermocouples for model WX2**  
 Type "J" (for rigid rod 153mm - 6")

TTER 718

