

**TP1** pressure transducers series distinguish themselves for both high reliability and solidity and for the low cost got by minimising production costs through the use of new technologies such as robotized stations and many LASER equipment.

The sensitive part, in contact with pressure, is entirely made of 17-4 pH stainless steel which is corrosion-proof.

High vacuum thermal treatments which stainless steel is subjected to, ensure sensor perfect functioning even in presence of highly dynamic stresses.

Monolithic execution of measurement element, free from any assembling made through tight rings or gaskets, ensure a high stability with hysteresis and zero drift which are marginal.

Pressures are internally detected through a complete strain gauge bridge which guarantees performances maintenance even in presence of peaks.

All pressure transducers are entirely LASER welded and completed resin capsuled to ensure both insensitiveness and a hermetic tight high degree.

During the production cycle, pressure transducers are thermally compensated, tested and separately calibrated through completely automated stations which analyse and record all the parameters.



**Output: 2 mV/V or 1-6 Volt**  
**Low cost**

All TP1 pressure transducers with 2mV/V output do have the advantages that they can be direct connected to any of our strain gauges instruments, also several units of TP1 connected in parallel where the sum form different measuring points can be an advantage on special jobs.



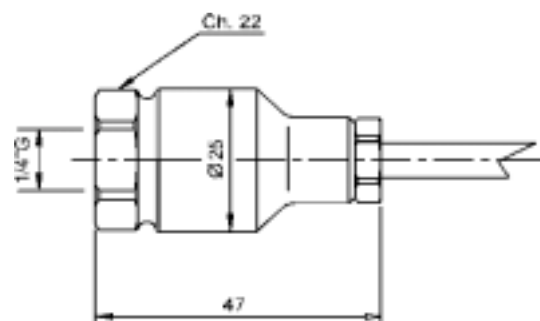
DFI indicator can be one of the typical used instruments for TP1



**Dimensions** ▶ mm ▶



or a TA4 board which can power 6 x TP1 and give a 4-20mA or 0-10V output



## Technical Data



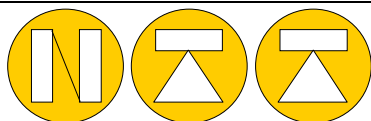
	RELATIVE PRESSURE (R)	0.5 - 1 - 2,5 - 5 - 10 - 20 bar	
	ABSOLUTE PRESSURE (A)	50 - 100 - 250 - 350 - 500 bar	
	LINEARITY and HYSTERESIS	≤ ± 0.20 %	
	TEMPERATURE EFFECT for 1°C		
	a) on zero	≤ ± 0.015%	
	b) on sensitivity	≤ ± 0.015%	
	NOMINAL SENSITIVITY	2mV/V ≤ ± 0.5%	1-6Vdc ≤ ± 0.5%
	NOMINAL POWER SUPPLY	1-15V	12-24V
	MAX. POWER SUPPLY	18V	28V
	MAX. ABSORPTION		20mA
	LOADING RESISTANCE :		min. 2KΩ
	INSULATION RESISTANCE	>2 GΩ	>2 GΩ
	ZERO BALANCE	≤ ± 0.5%	≤ ± 0.5%
	RESPONSE FREQUENCY	from 20 to 100kHz	from 1 to 5kHz
	LIMIT MECHANICAL VALUES RELATED TO NOMINAL PRESSURE :		
	a) service pressure	100%	
	b) max. permissible pressure	150%	
	c) breaking pressure	>300%	
	d) highly dynamic pressure	75%	
	REFERENCE TEMPERATURE	+23°C	
	WORKING TEMPERATURE	-10/+70°C	
	STORAGE TEMPERATURE	-20/+80°C	
	STANDARD PROCESS COUPLING	1/4" Gas BSP FEMALE	
	RECOMMENDED GASKET	USIT A 63-11	
	TIGHTENING WRENCH	22mm	
	TIGHTENING TORQUE	28 Nm	
	PROTECTION CLASS (EN 60529)	IP67	
	SENSOR EXECUTION MATERIAL	INOX 17-4 pH	
	ELECTRICAL CONNECTION	Cable 3m	

### Electrical connections

PVC 105°C shielded cable Ø6mm with 4 tinned conductors  
Ø0.35mm<sup>2</sup>.

2mV/V	OUTPUT	CABLE
	<b>EXCITATION+</b> <b>EXCITATION -</b> <b>OUTPUT+</b> <b>OUTPUT-</b>	<b>Red</b> <b>Black</b> <b>White</b> <b>Yellow</b> <b>Shield*</b>

\* connected to the transducers body.



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*Distributor:*

*In order to improve the technical performances of the product, the company reserves the right to make modifications without notice.*