

# TP1—PRESSURE TRANSDUCER

## FEATURES



- Relative Pressure 10-20 Bar
- Absolute Pressure 50-700 Bar
- Sealed to IP67.
- Strain Gauge output.
- Linearity  $\pm 0.25\%$  to  $\pm 0.5\%$ .

## APPLICATIONS

- Test Machines
- Process Control.
- Harsh environments.

## DESCRIPTION

The P-TP1 pressure transducer can be supplied in two versions: TP1—strain gauge 2mV/V output, TP1-A—amplified 0-5V output which makes the connection to a plc or to more advanced acquisition systems easier.

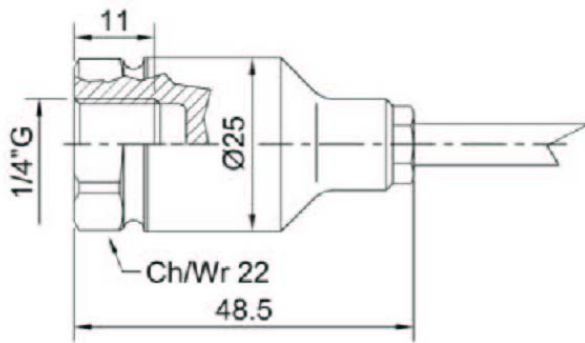
The sensing element is produced from 17-4pH stainless steel. Every transducer is entirely laser welded and completely resin encapsulated.

## TYPICAL SPECIFICATION

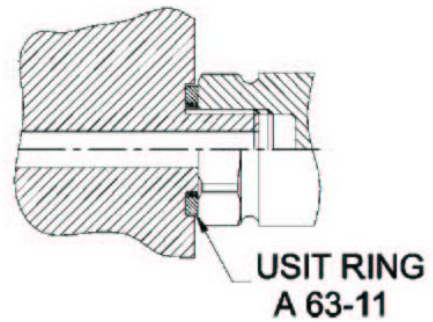
PARAMETER	VALUE	UNITS
<b>Pressure Range</b>	10-20 (Relative) 50-100-250-350-500-700 (Absolute)	Bar
<b>Rated Output</b>	2.0 nom	mV/V
<b>Linearity &amp; Hysteresis</b>	0.5 (Relative) 0.25(Absolute)	$\pm\%$ of Full Scale
<b>Zero Return after 30 minutes</b>	NA	$\pm\%$ of Applied Load
<b>Zero Balance</b>	0.5	$\pm\%$ of Full Scale
<b>Temperature Range: Operating</b> <b>Temperature Range: Compensated</b>	-10 to +110 -10 to +110	$^{\circ}\text{C}$
<b>Temperature Effect: On Output</b> <b>Temperature Effect: On zero</b>	0.015 0.02	$\pm\%$ of Full Scale $\pm\%$ of Full Scale
<b>Safe Overload</b>	150	% of Rated Capacity
<b>Ultimate Overload</b>	300	% of Rated Capacity
<b>Excitation: Recommended</b> <b>Excitation: Maximum</b>	10 18	Volts AC or DC
<b>Input Impedance</b>	440 nominal	ohm
<b>Output Impedance</b>	350 nominal	ohm
<b>Insulation Resistance</b>	>2	G $\Omega$ at 50VDC
<b>Deflection at Rated Capacity</b>	NA	mm
<b>Weight (approximate) :</b>	NA	kg
<b>Construction</b>	Stainless Steel	
<b>Environmental Protection</b>	IP67	
<b>Cable</b>	3m 4 core screened	

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## OUTLINE DIMENSIONS in millimeters



## TYPICAL INSTALLATION



STANDARD PROCESS COUPLING	1/4"Gas FEMMINA /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	Cavo 3m / 3m Cable
<b>OPTIONS</b>	
<b>TYPE</b>	<b>TP1A</b>
NOMINAL SENSITIVITY	<b>0.5 - 5.5 Vdc <math>\leq</math> <math>\pm</math>0.5%</b>
NOMINAL POWER SUPPLY	12-24V
MAX. POWER SUPPLY	28V
MAX. ABSORPTION	20mA
LOADING RESISTANCE	min. 3K $\Omega$
INSULATION RESISTANCE	>2 G $\Omega$
ZERO BALANCE	$\leq$ $\pm$ 0.5%
RESPONSE FREQUENCY	from 1 to 5kHz
ELECTRICAL CONNECTION	Connector: <b>M12X1</b>

NOTE: If the dimensions or specification do not suit, PCM have an in-house design and build service that should satisfy your requirements.

## WIRING DETAIL

