



# 500 series



## 2 wire transmitter for liquid level and pressure

- CHEMICALS AND OILS
- WATER AND EFFLUENTS
- FOOD AND BEVERAGE
- PHARMACEUTICAL
- MARINE / SHIPBOARD
- GAUGE AND ABSOLUTE
- DIN ELECTRICAL CONNECTOR
- INTEGRATED ELECTRONICS
- 2 WIRE, 4 - 20 MA OUTPUT



A compact and mass optimised design with a choice of corrosion resistant materials together with a wide choice of standard process connection options, make the series 500 range of 2 wire transmitters the ideal choice for simple application in many industries.

The integral amplifier provides a direct 4 - 20 mA output and features full zero and span user calibration facility.

A unique sensor technology incorporates a precision diaphragm with nesting backplate affording exceptional protection against overpressure, whilst retaining excellent sensitivity and resolution.

- Full spans from 10 mbar to 400 bar
- rugged construction for tough duties
- unrivalled shock and overload tolerance
- flanged, threaded and sanitary fittings

Rigorous testing ensures quality and reliability of every unit. Each instrument is subject to a 100% mass spectrometry inspection of containment welds, combined thermal pressure cycling and a 24 hour 'burn in'

test prior to final calibration.

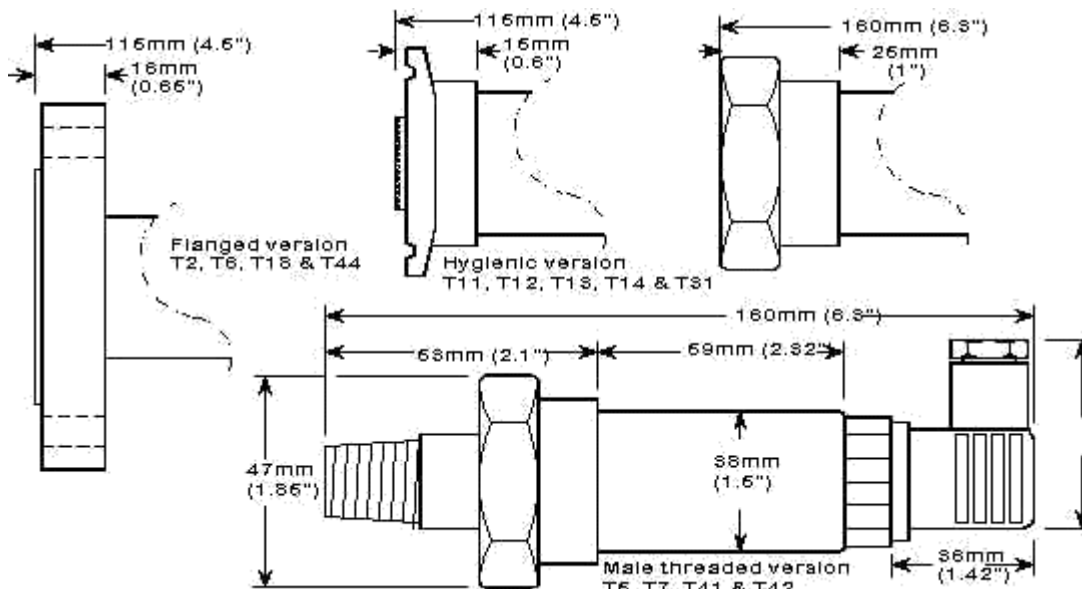
<b>STANDARD SPECIFICATIONS</b>			
Body:	316 stainless steel	Span adjustment:	3 to 1 turndown of nominal
Diaphragm:	Hastelloy C276 or 17-4PH st. steel or inconel X750	Protection:	to IP65 / NEMA 4X ( with vented signal cable )
Assembly:	Electron Beam and Pulsed Arc Tig Fusion	Humidity:	0 - 100 % non condensing
Supply:	2 wire 9 to 32V DC	Process temp:	-20 to 100°C / - 5 to 212°F
Signal Output:	4 - 20 mA DC	Maximum error:	± 0.25% T.S.L
Load:	$LW = (\text{Supply volts} - 9) / 0.02$	Temp effect:	less than 0.02% FS / °C 0.011 % FS / °F
Connection:	Standard Din plug	Overload:	Min. 10x nominal up to 50m Min. 5x nominal up to 30Bar Min. 2x nominal above 30Bar
Zero adjustment:	±10% of nominal		

## MODEL DESIGNATIONS

<b>500G</b>	Gauge Pressure Transmitter 316 St. Stl. body with integral amplifier
<b>500A</b>	Absolute Pressure Transmitter 316 St. Stl. body with integral amplifier
<b>500GS</b>	Gauge transmitter, 316 St. Stl. body with integral amplifier & liquid tight cable exit
<b>500AS</b>	Absolute transmitter, 316 St. Stl. body with integral amplifier & liquid tight cable exit
	Note : on GS & AS variants cable must be fitted by PSM
	T1 Basic unit suitable for cable suspension - SG & SA models only
	T2 DN25 PN16 flange mounting
	T3 Unit with tank fixing clamp - SG & SA models only
	T5 Threaded process connection 1/2" BSP male
	T6 1" ANSI 150lb flange mounting to BS1560
	T7 Threaded process connection 1/2" NPT male
	T11 Hygienic 2" IDF
	T12 Hygienic 2" RJT
	T13 Hygienic 2" Triclover
	T14 Hygienic 2" SMS
	T18 DN50 PN16 flange mounting
	T22 Threaded process connection 1" BSP female.
	T31 Hygienic DIN 50mm to 11851
	T32 Threaded process connection 1/2" BSP female
	T33 Threaded process connection 1/4" BSP female
	T36 Threaded process connection 1/4" NPT female
	T38 Threaded process connection 1/2" NPT female
	T39 Threaded process connection 3/4" NPT female
	T40 Threaded process connection 1" NPT female
	T41 Threaded process connection 1/4" NPT male.
	T42 Threaded process connection 1/4" BSP male

	T43	Threaded process connection 3/4" BSP female			
	T44	2" ANSI 150lb flange mounting to BS1560			
	H	Hastelloy C Diaphragm - Ranges 0.5 m Wg to 50 m Wg			
	S	PH15/7 Stainless Steel Diaphragm- Ranges 10 bar to 400 bar G			
		Note : 10 bar & 20 bar diaphragms are convaluted , above 20 bar a flat plate machined diaphragm is used			
		0.5	0.5m H <sub>2</sub> O		
		1	1m H <sub>2</sub> O		
		2	2m H <sub>2</sub> O		
		4	4m H <sub>2</sub> O		
		8	8m H <sub>2</sub> O		
		16	16m H <sub>2</sub> O		
		32	32m H <sub>2</sub> O		
		50	50m H <sub>2</sub> O		
		10b	10 bar G		
		20b	20 bar G		
		40b	40 bar G		
		100b	100 bar G		
		200b	200 bar G		
		300b	300 bar G		
		400b	400 bar G		
		A	Absolute diaphragm assembly		
		-	Gauge diaphragm assembly		
				C??	Specify cable length in metres Cost per metre Note : cable is 2 core screened with integral vent. It must be fitted to SG & SA models and is optional on others
				??	Transmitter set range in metres H <sub>2</sub> O
				S??	Special calibration - reversed output, elevated / suppressed zero

### TYPICAL CONSTRUCTION



 [Back to Top](#)

---

**The 500 is a registered design. All rights reserved 1998**  
**Information in this document is subject to change without notice.**  
**Other products and companies referred to herein are trademarks or registered trademarks of their respective companies or mark holders.**

[Back](#)