



HAMMER UNION - 1502

Pressure Transmitter

Overview

The hammer union pressure transmitter is a US manufactured pressure transmitter with Weco™ process connections. Offered with 4-20mA output signals, this design features high shock and vibration resistance, with testing up to 1000G. Pressure is measured from an Inconel 718 sensing element using MEMS silicon based strain gages to produce accurate repeatable measurements. The cage design allows for protection of both the connector and mating connector. The modular enclosure allows for simple factory replacement of the transmitter at a fraction of the cost of the whole assembly.

Performance @ 25°C (77°F)

Accuracy	<±0.5% BFSL (Accuracy includes non-linearity, hysteresis & non-repeatability)
Stability (1 year)	±0.25% FS, typical
Over Range Protection	2X Rated Pressure, Minimum
Burst Pressure	5X or 40,000 PSI (whichever is less)
Pressure Cycles	>100 Million

Environmental Data

Temperature

Operating	-40 to 80°C (-40 to 176°F)
Storage	-40 to 100°C (-40 to 212°F)
0-100% relative humidity, non-condensing	

Thermal Limits

Compensated Range	0 to 55°C (32 to 132°F)
TC Zero	<±1.5% of FS
TC Span	<±1.5% of FS

Other

Shock	1,000g, 0.5ms half sine wave
Vibration	EN 60068-2-6, 60068-2-64, and IEC 68-2-32
EMI/RFI Protection:	Yes
Rating:	IP-66, min

Benefits

- ♦ Modular design
- ♦ Cage protection for connector and mating cable
- ♦ Inconel 718 sensing element
- ♦ SIL2 available
- ♦ Easy to carry
- ♦ Non-clogging port
- ♦ Available in Intrinsically Safe, Non-Incendive, and Explosion-proof packages

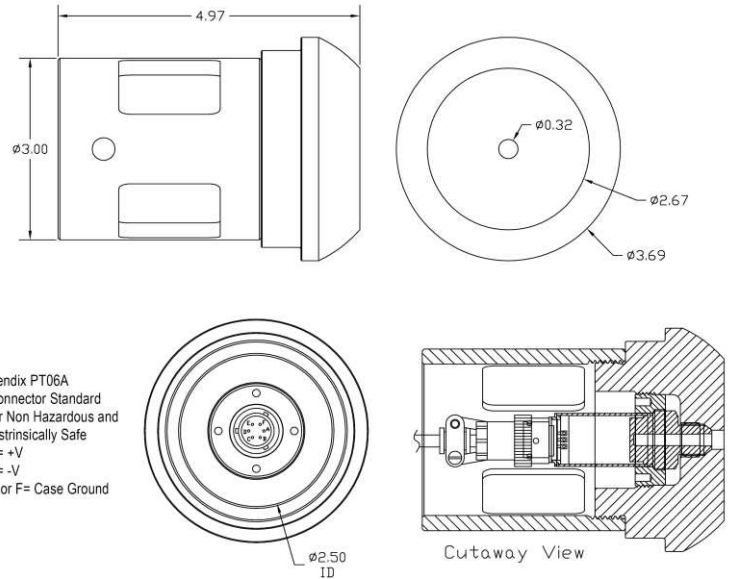
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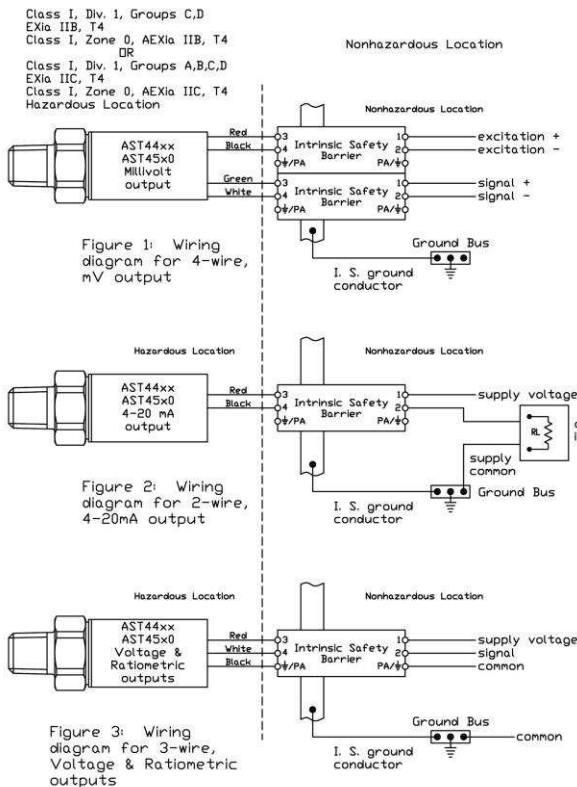
Electrical Data

Output	4-20mA
Excitation	10-28VDC
Output Impedance	>10k Ohms
Current	20mA, typical
Consumption:	
Bandwidth	(-3dB): DC to 250 Hz
Zero Offset:	<±1% of FS
Span Tolerance:	<±2% of FS
Output Load:	0-800 Ohms@10-28VDC
Reverse Polarity Protection	Yes

Dimensions



CSA Approved Barrier Installation | A08949



Entity Parameters

Models AST4400, AST44LP, AST4500, AST4510, AST4520, AST4530
Class I, Div. 1, Groups C,D; EXia IIB, T4; Class I, Zone 0, AEXia IIB, T4
Vmax = 28Vdc

Model AST4401
Class I, Div. 1, Groups A,B,C,D; EXia IIC, T4; Class I, Zone 0, AEXia IIC, T4
Vmax = 14.5Vdc

4-20mA with integral connector	4-20mA with upto 1000ft of integral cable	All EXCEPT 4-20mA with integral connector	All EXCEPT 4-20mA with upto 150ft of integral cable
Pmax = 625 mW Imax = 93 mA Ci = 0.391 uF Li = 0	Pmax = 625 mW Imax = 93 mA Ci = 0.434 uF Li = 155 uH	Pmax = 625 mW Imax = 93 mA Ci = 0.643 uF Li = 0	Pmax = 625 mW Imax = 93 mA Ci = 0.649 uF Li = 23.3 uH

- For installation in accordance with Fig 2, barrier must be a CSA Certified, Single Channel grounded Shunt-Diode Zener Barrier or a Single Channel Isolating Barrier.
- For installations in accordance with Figs. 1 and 3, one dual-channel or two single-channel barriers may be used, where in either case, both channels have been Certified for use together with combined entity parameters.
- The following conditions must be satisfied:
 $V_{oc} \text{ or } U_o \leq V_{max}$
 $I_{sc} \text{ or } I_o \leq I_{max}$
 $P_o \leq P_i$ (if applicable)
 $C_a \text{ or } C_o \geq C_i + C_{cable}$
 $L_a \text{ or } L_o \geq L_i + L_{cable}$
- Maximum non-hazardous area voltage must not exceed 250 V.
- Canadian installations should be in accordance with Canadian Electrical Code, Part I. U.S. installations should be in accordance with Article 504 in the National Electrical Code, ANSI/NFPA 70.
- A grounding method is not provided by the manufacturer as part of the integral design of the Transducer. For units which are connected through a grounded shunt diode safety barrier, ensure that the transducer is mounted to a surface which is at the same potential as the barrier ground.
- See user manual for installation conditions.

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Ordering Information

AST4400 Series Type AST4300= Class I Div 2 Non-Incendive AST4400= Class I Div 1 IS Groups C, D with barrier AST4600= Class I Div 1 Explosion-proof Process Connection X = Special - See option codes Pressure Range Insert 5-digit pressure range code <table><tr><td rowspan="4">PSI Measurement</td><td>6,000</td><td rowspan="4">Pressure Code</td><td>06000</td></tr><tr><td>10,000</td><td>10000</td></tr><tr><td>15,000</td><td>15000</td></tr><tr><td>20,000</td><td>20000</td></tr></table> Pressure Unit B= Bar P= PSI Outputs 4= 4-20mA (2 wire loop powered) Electrical R= 6- Pin Bendix (PT06A) (see Option 601) Y= M12x1 Wetted Material 2= Inconel 718 Sensor / 316L SS Options 600= Weco™ 1502 Cage Assembly 601= Weco™ 1502 Cage Assembly, Bendix A=+V, B=-V, D and F=Case Ground Approval -SS= CSA Certified, ANSI/ISA 12.27.01 Single Seal and ATEX/IECEX (AST4300 / AST4400) -SL= Same as -SS + SIL2 Certification	PSI Measurement	6,000	Pressure Code	06000	10,000	10000	15,000	15000	20,000	20000	X	15000	P	4	R	2	601	-SS
PSI Measurement		6,000		Pressure Code	06000													
		10,000			10000													
		15,000			15000													
	20,000	20000																

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