

Hammer Union - 1502



Pressure Transmitter



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.

Benefits

- Modular design
- Cage protection for connector and mating cable
- Inconel 718 sensing element
- SIL2 available
- Easy to carry
- Non-clogging port

Performance @ 25°C (77°F)

Accuracy*	< ±0.5% BFSL
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

* Accuracy includes non-linearity, hysteresis & non-repeatability

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

Electrical Data

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



Ordering Information

AST4400 **X** **15000** **P** **4** **R** **2** **601** **-SS**

Series Type

Process Connection
X = Special - See option codes

Pressure Measurement

Insert 5-digit pressure code

PSIS Measurement	6,000	Pressure Code	06000
	10,000		10000
	15,000		15000
	20,000		20000

Pressure Unit
B= Bar (contact factory)
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

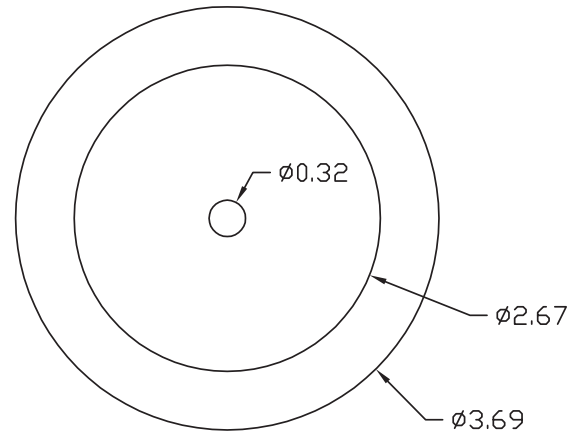
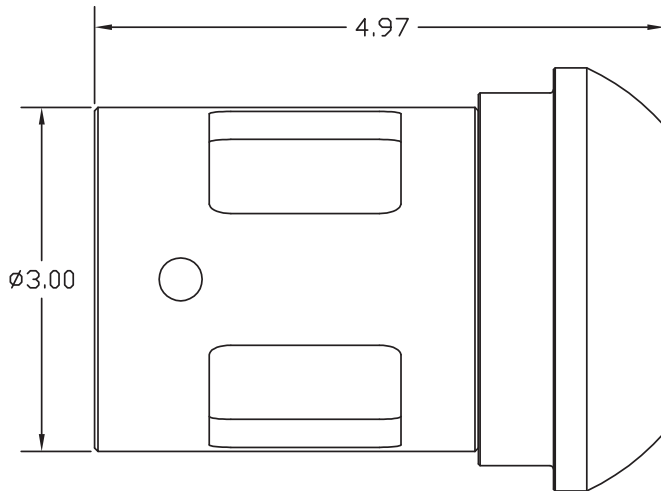
Approval
-SS= CSA157 Class I Div 1 Grps C, D Intrinsically Safe, ANSI/ISA 12.27.01 Single Seal and ATEX/IECEx Exia IIB Class I, Zone 0, T4
-SL= Same as -SS + SIL2 Certification

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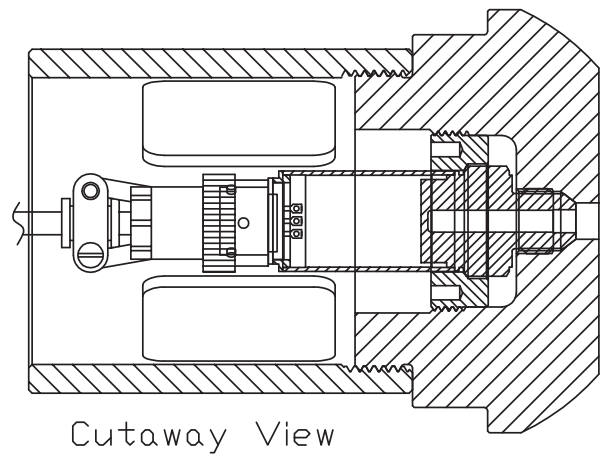
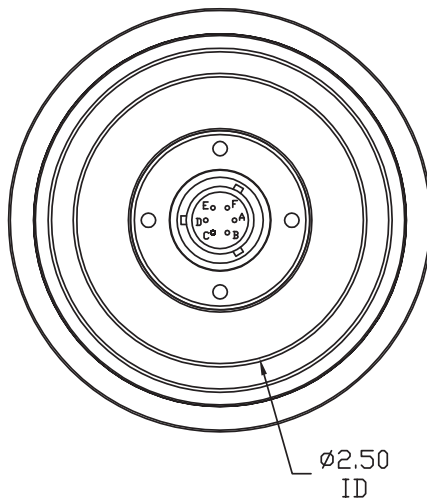
Hammer Union



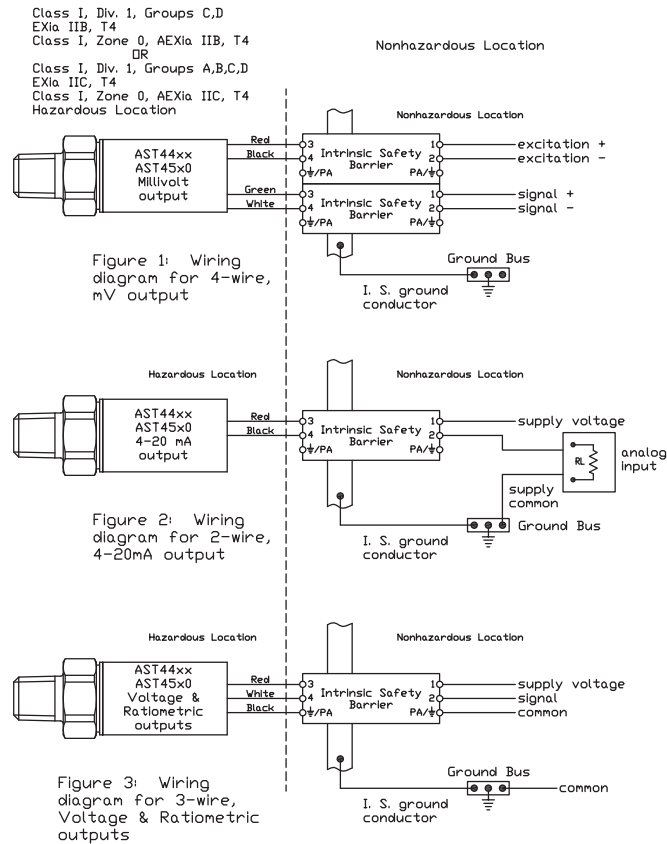
Pressure Transmitter



Bendix PT06A
Connector Standard
for Non Hazardous and
Intrinsically Safe
A= +V
B= -V
D or F= Case Ground



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
 $V_{max} = 28V_{dc}$

Model AST4401
Class I, Div. 1, Groups A,B,C,D; EXIa IIC, T4; Class I, Zone 0, AEXIa IIC, T4
 $V_{max} = 14.5V_{dc}$

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
$P_{max} = 625 \text{ mW}$	$P_{max} = 625 \text{ mW}$	$P_{max} = 625 \text{ mW}$	$P_{max} = 625 \text{ mW}$
$I_{max} = 93 \text{ mA}$	$I_{max} = 93 \text{ mA}$	$I_{max} = 93 \text{ mA}$	$I_{max} = 93 \text{ mA}$
$C_i = 0.391 \text{ uF}$	$C_i = 0.434 \text{ uF}$	$C_i = 0.643 \text{ uF}$	$C_i = 0.649 \text{ uF}$
$L_i = 0$	$L_i = 155 \text{ uH}$	$L_i = 0$	$L_i = 23.3 \text{ uH}$

- 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:

$$V_{oc} \text{ or } U_o \leq V_{max} \quad C_a \text{ or } C_o \geq C_i + C_{cable}$$

$$I_{sc} \text{ or } I_o \leq I_{max} \quad L_a \text{ or } L_o \geq L_i + L_{cable}$$

$$P_o \leq P_i \text{ (if applicable)}$$
- 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.