



EP-Hammer Union

WECO® 2202, 2 inch Explosion Proof, Pressure Transducer

Description

Stellar Technology's EP 2202 hammer union pressure transducers are explosion proof configurations designed for upstream oil and gas applications that need to meet the regulatory requirements of both the BOEM (Bureau of Ocean Energy Management) and BSEE (Bureau of Safety and Environmental Enforcement) now being enforced in the Gulf of Mexico. STI's explosion proof hammer union pressure transducers are certified by both CSA and ATEX as Class I, Div I hazardous area components. The Series GT25XX explosion proof sensors are CSA certified. Our series GT23XX explosion proof pressure transducers are ATEX certified. Both are available with a wide variety of signal outputs ranging from 4-20 mA current outputs; 0-5 Vdc, 1-5 Vdc, and 0-10 Vdc voltage outputs; and digital outputs such as RS232, RS485, CANbus, and Modbus. Electrical termination consists of ½ in. NPT male or ½ in. NPT female conduit connections with 18 inches of insulated leads. Each of our hammer union transducers is constructed of all welded stainless steel. All wetted parts are one-piece Inconel and are NACE MR0175/ISO15156 compliant. Every explosion proof hammer union transducer is manufactured to rigorous shock and vibration requirements. If needed, Stellar Technology can assist you with selecting various connection options. (For intrinsically safe versions of STI's WECO® 1502, 2202, 2202 hammer union pressure transmitters please see our data sheets for IS Hammer Union pressure transmitters.)



In addition to the explosion proof hammer union pressure transducers, Stellar Technology provides a complete offering of pressure transducers, load cells, reaction torque sensors, and temperature sensors that are designed specifically for hazardous locations – either explosion proof (CSA and ATEX certified) or intrinsically safe (also, CSA and ATEX certified).

Standard Features

- Explosion Proof (Class I, Div 1)
- CSA and ATEX Certified
- Field Tested and Proven
- +/- 0.2% Accuracy
- Analog or Digital Outputs
- All Welded Construction
- ½ NPT Male or Female Conduit Connection
- Complies with NACE Standard MR0175/ISO15156 (2003)
- Vibration and Shock Protection
- RFI/EMI Protection

Optional Features

- Explosion Proof Terminal Box
- Pressure Range Specific Marking
- Dual (CSA and ATEX) Certifications
- Carrying Handle

®WECO is a registered trademark of FMC Technologies

EP-Hammer Union 2202

Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below
Custom Designs Available

Performance

Static Accuracy

± 0.2% FSO by BFSL.

Thermal Error

< ± 0.020% FSO/°F typical.

< ± 0.005% FSO/°F optional.

Insulation Resistance

> 100 megohms at 50 Vdc at 70°F.

Zero Balance

± 1% FSO at 70°F.

Span

± 1% FSO at 70°F.

Frequency Response

1000 Hz to 5K Hz.

Mechanical Characteristics

Standard Ranges

0 - 5000, 6000, 7500, 10000, 15000,
20000 PSIG.

Proof Pressure

1.5 times FSO range minimum.

Burst Pressure

2.0 times FSO range minimum
or maximum rating of hammer union.

Operating Media

Fluids and gases compatible with
Inconel 718. Complies with NACE
Standard MR0175/ISO15156 (2003)
Other materials optional.

Enclosure

Completely welded.

Pressure Fitting

1502, 2" hammer union male sub.

Weight

Approximately 5 lbs.

Environmental Characteristics

Compensated Temperature Range

+30°F to +130°F.

Options Available..

Operating Temperature Range

-40°F to +185°F.

Electrical Characteristics

ANALOG OUTPUTS

Excitation

4-20mA Current Loop:

9-36 Vdc for 2-wire.

9-36 Vdc for 3-wire.

Isolated Voltage Output (0-5 Vdc, 0-10 Vdc):

14-32 Vdc (standard).

8-18 Vdc (No charge option).

Non-Isolated Voltage Output:

8-40 Vdc for 1-5 Vdc, 3-wire
(standard).

8-40 Vdc for 1-6 Vdc, 3-wire
(No charge option).

8-40 Vdc for 0-5 Vdc, 4-wire
(No charge option).

*Additional outputs and related excitations
available. Please consult factory.*

DIGITAL OUTPUTS

Excitation

RS-232, RS-485

8-30 Vdc.

CANbus

4-18 Vdc (standard).

14-32 Vdc (optional).

Programming

PC.

DUAL OUTPUTS (Analog & Digital)

Excitation

3-wire Current plus Digital:

12-32 Vdc.

Isolated Voltage plus Digital:

14-32 Vdc.

Non-Isolated Voltage plus Digital:

8-30 Vdc.

COMMON

Insulation Resistance

> 100 megohms at 50 Vdc at 70°F.

Electrical Termination

1/2" NPT Male or Female.

*Note: Only Ex d certified cable glands are to be
used for connection to the pressure transducer.*

Electrical Protection

- EMI Protected.
(Optional for Isolated Voltage).
- Surge Protection to 500 Vdc.
(Optional for Isolated Voltage).
- Reverse polarity protected.

CSA Certification / Rating

Hazardous Location Certification

CSA Rated

Explosion Proof Class I, Division 1,
Groups A,B,C,D

Non-Incendive Class I, Division 2,
Groups A,B,C,D

(Non-Incendive devices require
conduit termination)

Applied Standards

CSA STD C22.2 NO. 142M1987

CSA STD C22.2 NO. 30M1986

UL STD - 1203

UL STD - 1604



0539



ATEX Certification / Rating

European Directive Information

The EC declaration of conformity for all applicable European
directives for this product may be obtained by contacting our
local sales office.

ATEX Directive (94/9/EC)

Stellar Technology's Quality Management System complies with
the Annex IV of the ATEX Directive.

Applied standards: EN 60079-0:2009, EN 60079-1:2007

European Pressure Equipment Directive (PED) (97/23/EC)

The series GT2350 is for use on well-control equipment used in
the petroleum, gas or geothermal exploration and
extraction industry and in underground storage which is
intended to contain and/or control well pressure. In accordance
with article 1 of the directive the product is exempt.

EMC Directive (89/336/EEC)

Applied standards: EN 61326,

EN 61000-4-2, EN 61000-4-3, EN 61000-4-4,

EN 61000-4-5, EN 61000-4-6

Hazardous Location Certifications



0359



IP66

ATEX Flameproof

Certificate No.: DNV-2003-OSL-ATEX-0258

Marking: II 2 G Ex d IIC T5 Gb

(Tamb -40°C to 85°C)



Modifications and Warranty

MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: Stellar Technology warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that Stellar Technology's obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.



ISO 9001/AS9100

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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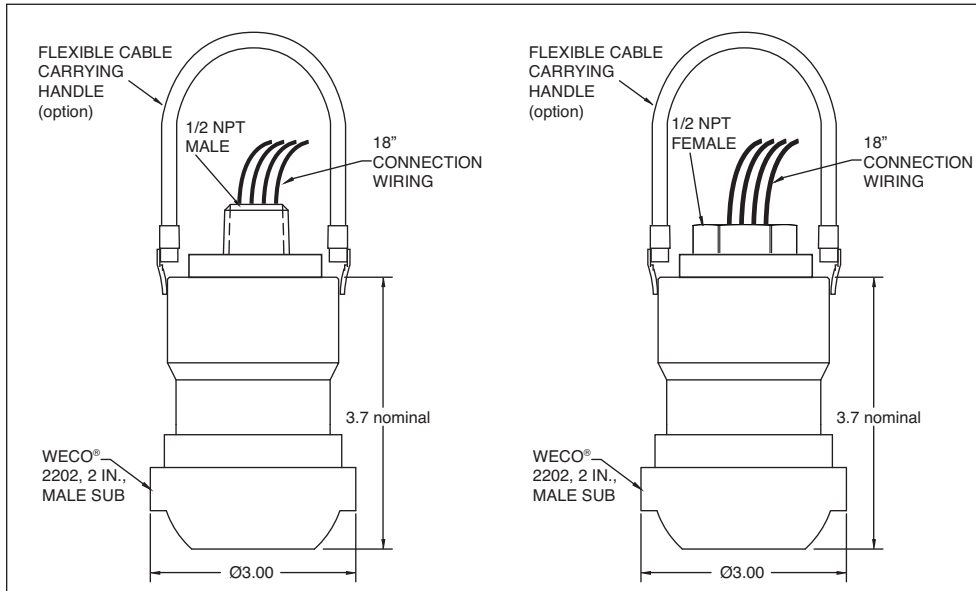
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EP-Hammer Union 2202 Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below
Custom Designs Available

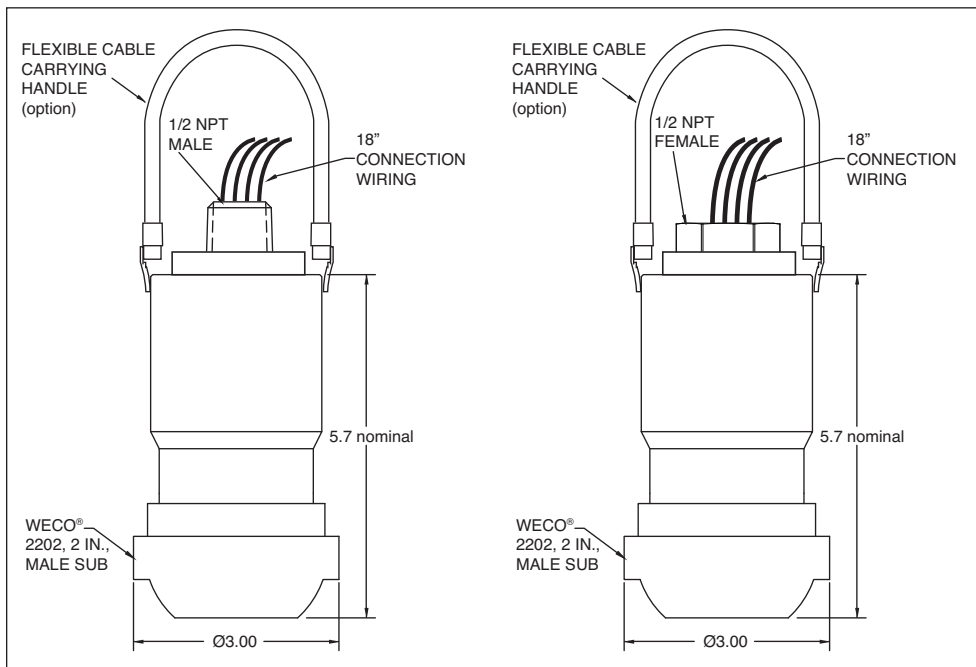
CSA Dimensions (inches)



CSA MODEL IDENTIFICATION

G	T	2	5	X	X
SERIES		ANALOG OUTPUT		DIGITAL OUTPUT	
		0 = Volts		0 = None	
		5 = 2-wire Loop		1 = RS-485	
		6 = 3-wire Loop		2 = RS-232	
		1 = None		4 = CANbus	

ATEX Dimensions (inches)



ATEX MODEL IDENTIFICATION

G	T	2	3	X	X
SERIES		ANALOG OUTPUT		DIGITAL OUTPUT	
		0 = Isolated Voltage		0 = None	
		1 = None		1 = RS-485	
		2 = Non-Isolated Voltage		2 = RS-232	
		5 = 4-20 mA 2-wire Loop (not available with Digital Output)		4 = CANbus	
		6 = 4-20 mA 3-wire			



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