



ISO 9001/AS9100 Certified

# HAMMER UNION

WECO® 2202, 2 INCH PRESSURE TRANSMITTER

YOUR ENGINEERED SOLUTION SOURCE <sup>SM</sup>

## DESCRIPTION

The Stellar Technology Weco®2202, 2 inch, hammer union pressure transmitter is designed specifically to meet the demanding high-pressure requirements of hydraulic fracturing in shale oil and shale gas formations. This STI hammer union pressure transmitter has been field tested by well servicing companies to validate superior performance, reliability, endurance, and service life when compared with competitive units. That makes the STI hammer union pressure transducer ideal for a wide variety of high pressure drilling and well servicing applications.

The pressure transducer's all welded construction ensures there are no fastener failures. The one-piece Inconel 2202 male sub and pressure sensing diaphragm will withstand the sour gas environments encountered in many well servicing applications. Since field failure is often due to the failure of the electrical receptacle, STI hammer union pressure transducers incorporate an extra rugged bolt-on receptacle with proprietary shell. Customers can also specify hermetic welded electrical receptacles or their own preferred type of electrical connection.

Each hammer union pressure transducer is manufactured with special processes to enhance shock and vibration immunity—characteristics vital for today's well servicing environments. Special design features are included to counteract the possible effects of EMI and RFI interference.

Additional design features include four equally spaced drain-holes around the connector base to ensure moisture does not build up around the electrical receptacle. A flexible vinyl-covered steel carrying handle, allowing the 2202 nut to be installed without removing the handle, is standard. The STI 2202 hammer union pressure transducer has a static accuracy of 0.2% of full scale output (BFSL) and comes in standard ranges of 10,000, 15,000 psi, and 20,000 psi.

All Stellar Technology 2202, 2 inch, hammer union pressure transmitters are ATEX and/or CSA certified intrinsically safe with 4-20 mA output. The part number reference on the following page indicates whether the hammer union pressure transmitter is ATEX certified, CSA certified, or dual certified.

*(See 1502 Hammer Union data sheet for WECO®1502 specifications. Also, refer to data sheets for GT23XX and GT25XX product for explosion proof configurations.)*



A US Manufacturer of: Pressure, Temperature, Load/  
Force/Torque, and Displacement Sensors.



## STANDARD FEATURES

- +/- 0.2% Accuracy
- Field Tested and Proven
- 4-20 mA Output
- Intrinsically Safe (ATEX, CSA)
- Rugged All Welded Construction  
Complies with NACE Standard  
MR0175/ISO15156 (2003)
- Vibration and Shock Protection
- RFI/EMI Protection
- Robust Oilfield-Specific  
Electrical Receptacles

## OPTIONAL FEATURES

- Integral Temperature Sensor
- Customer Specific Electrical Receptacles  
(i.e., Jupiter, Amphenol, Glenair, Rota, etc.)
- Digital Output (Non-IS)
- Molded-Over Adapter Cables

®WECO is a registered trademark of FMC Technologies

## 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 - 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

2202, 2002, 2" hammer union male sub.

### WEIGHT

Approximately 5 lbs.

## ELECTRICAL CHARACTERISTICS

### EXCITATION

9-36 Vdc unregulated.

### OUTPUT SIGNAL

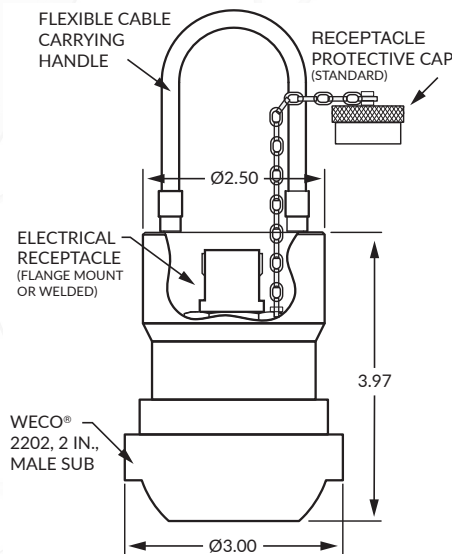
4-20 mA dc.

### ELECTRICAL TERMINATION

One-piece PTIH-10-6P bolt-on stainless  
steel connector (standard)

One-piece PTIH-10-6P type welded and  
hermetic (no-charge option)

(Customer specified options: Jupiter, Glenair, Amphenol, Rota,  
Turck, Lemo, etc. Integral junction box connections also available.)



## ENVIRONMENTAL CHARACTERISTICS

### COMPENSATED TEMPERATURE RANGE

-40°F to +185°F.

### OPERATING TEMPERATURE RANGE

-65°F to +250°F.

## CERTIFICATION / RATING

### HAZARDOUS LOCATION CERTIFICATION

ATEX CERTIFIED MODELS:

GT2450 Intrinsically Safe II 1GEx ia IIC T4

EMC Directive 89/336/EEC

European Pressure Equipment Directive 97/23/EC

CANADIAN STANDARDS

ASSOCIATION/UL CERTIFIED MODELS:

GT2250 Intrinsically Safe Class I, Div1, Groups ABCD  
Non-Incendive Class I, Div2, Groups ABCD



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## MODEL IDENTIFICATION

### GT2450

Denotes ATEX IS certification.

### GT2250

Denotes CSA IS certification.

### GT2450/2250

Denotes dual ATEX IS and CSA IS certifications.

## 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.



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