



Hammer Union

WECO® 1502, 2 inch Pressure Transmitter



Description

The Stellar Technology Weco®1502, 2 inch, hammer union pressure transmitter is a second generation hammer union pressure transducer designed specifically to meet the demanding 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 drilling and well servicing applications.

The pressure transducer's all welded construction ensures there are no fastener failures. The one-piece Inconel male sub and pressure sensing diaphragm will withstand the sour gas environments encountered in many well servicing applications. A proprietary diaphragm is designed for high-cycle 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. A larger housing diameter makes it easier to connect/disconnect cable assemblies. 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 1502 nut to be installed without removing the handle, is standard.

The STI 1502 hammer union pressure transducer has a static accuracy of 0.2% of full scale output (BFSL) and comes in standard ranges of 5000 psi, 6000 psi, 7500 psi, 10,000 psi, and 15,000 psi. Special calibrations to 20,000 psi are also available.

All Stellar Technology 1502, 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 2202 Hammer Union data sheet for WECO®2202 specifications.)

Also, refer to data sheets for GT23XX and GT25XX product for explosion proof configurations.)

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

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1502 Hammer Union

Intrinsically Safe • Specifications

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

Performance

Static Accuracy

± 0.25% BFSL Linearity.

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.

MWP:

FSO or 15000 PSI whichever is less
(1502 fitting limitation).

Proof Pressure

1.5 times FSO or 22500 PSI
whichever is less.

(1502 fitting limitation).

Burst Pressure

2.0 times FSO range
(sensor only, excluding 1502 fitting).

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 6 lbs.

Electrical Characteristics

Excitation

9-36 Vdc unregulated.

Output Signal

4-20 mAdc.

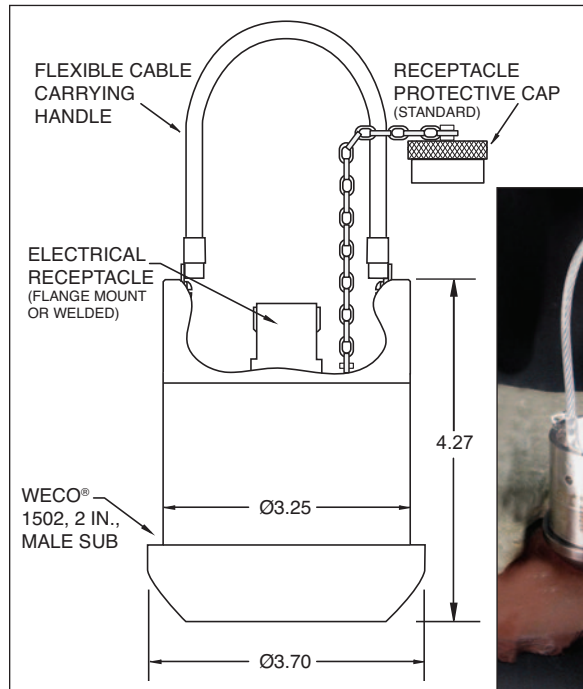
Electrical Termination

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.)

Dimensions (inches)



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 1 G EEx 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



MODEL IDENTIFICATION

GT2450

denotes ATEX IS certification.

GT2250

denotes CSA IS certification.

GT2450/2250

denotes dual ATEX IS and CSA IS
certifications.



STI's
Wider
Connector
Shield

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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