## Pressure, Level & Temperature Transmitters & Transducers



2770 Long Road, Grand Island, NY 14072 USA Tel. (716) 773-9300 • Fax (716) 773-5019 sales@gp50.com • www.gp50.com

# **WECO® "HAMMER" UNION PRESSURE TRANSMITTER**

Models 170, 270, 370

Designed specifically for use with either WECO® 2" 1502 or 2" 2002 Wing Union Fittings for the high pressure /vibration applications such as Cementing, Fracturing, Mud Pressure Measurement & Acidizing.



## **FEATURES:**

- Designed to reduce "clamping effects" of Wing Union
- 0-5000 thru 0-20,000 psi
- · Corrosion resistant materials
- High Accuracy
- 0-5 VDC, 4-20 mA, CANbus outputs
- · Hazardous Locations Approvals
- 350°F version available
- 100% Shunt Cal

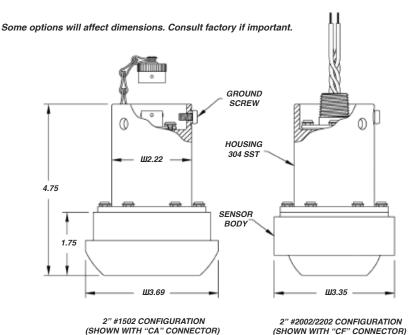
## **Approvals**



WIRING:	170/270	370
A/1	+EXC.	+EXC./SIGNAL
B/2	-EXC.	-EXC./SIGNAL
C/3	+SIGNAL	NC
D/4	-SIGNAL	CASE GROUND
E/5	+SHUNT/CAL	+SHUNT/CAL
F/6	-SHUNT/CAL	-SHUNT/CAL







#### Accuracy:

Static Error (Includes Hysteresis, Non-linearity, Non-Repeatability)

- ≤0.25% FSO (RSS)
- ≤0.10% FSO (Optionally available)

#### Zero Balance & FSO:

- (Model 170) 0.0 mV/V ±1% FSO at 10 VDC
- (Model 270) 0.0 V ±1% FSO at 24 VDC
- (Model 370) 4.0 mA ±1% FSO at 24 VDC

#### Full Scale Output:

- (Model 170) 3 mV/V
- (Model 270) 5 VDC
- (Model 370) 16mA

## **Temperature Limits:**

- Compensated: -40° F to 180°F (-40° C to 80° C)
- Operating: -50 F to 185 deg F (-45° C to 85° C)

## Temperature Compensation:

- Zero: <±1.0% FSO/100°F
- Span: <±1.0% FSO/100°F

## **Electricals:**

- Excitation Voltage:
- (Model 170) 16 VDC max
- (Model 270) 9-36 VDC
- (Model 370) 9-36 VDC (10-28 VDC for GI/AI/I approvals)
- Input Current:
- (Model 170) 45 mA
- (Model 270) 8 mA
- (Model 370) 23 mA max.
- Load Impedance:
  - (Model 170) >10K ohms
  - (Model 270) >5K ohms
- Shunt Calibration:
- (Model 170) 100% FSO ±0.2% shorting E + F
- (Model 270) 100% FSO ±0.2% shorting E + F
- (Model 370) 100% FSO ±0.2% by exciting E + F
- Zero Balance / Span: Less than ±1.0% FSO/100°F

## Mechanicals:

- Proof Pressure: 1.5X Pressure range or 22,5000 PSI which ever is less
- Burst Pressure: 3X Pressure Range or 22,5000 PSI which ever is less

Weco Fitting limited to 22.5K PSI max working pressure

• IP68 Rated with proper mate

## Materials of Construction:

- Sensor: See options below
- Housing: 300 Series SST

## Connections:

- Pressure: WECO® 2"1502 or WECO® 2"2002/2202
- Electrical: Bendix PTO2E-10-6P Identification: Etched Housing

Weight: Approx. 6lbs, options may affect weight

A5SL-70



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## WECO® "HAMMER" UNION PRESSURE TRANSMITTER

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Typical configurations (consult factory for more options)

<b>MODELS</b>
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170 3 mV/V 270 0 - 5 Vdc 370 4 - 20 mA

## APPROVALS - 370 Series Only

AI ATEX/IEC Intrinsic Safety

AN ATEX/IEC Zone 2

EC CE Marking
GI ATEX/IEC/FM/CSA Intrinsic Safety

GN ATEX/IEC/FM/CSA Div/Zone 2

I FM/CSA Intrinsic Safety
N FM/CSA Div/Zone 2

### PROCESS CONNECTION

A WECO® 2"1502 Inconel X750 B WECO® 2"2002 Inconel X750 \*\*

C \* WECO® 2"2202, Inconel 718 \*\*

D \* 2"1502, Inconel 718

G \*2"1502 SST

H \* WECO® 2"2202/2002 SST \*\*

## PRESSURE RANGE

SZ Non-standard range, if applicable

RV 5,000 psi RW 6,000 psi

RX 7,500 psi

RZ 10,000 psi

SB 15,000 psi

SD 20,000 psi

## **ELECTRICAL CONNECTIONS**

CA Bendix 6-pin РТШ2Е-10-6Р (SST) (Standard on all models)

CF 1/2"NPT(M) with 18"18 AWG MTW cable

DK Glenair 4-pin GC379-2-14S-2P DO Jupiter RECM 10TPN04-16

DM MS3102E 14S-2P

DP 4-Pin Brad Harrison style

DT4 4-Pin mini fast, 7/8-16 THD, Nickel Pltd. (Div 2 / Zone 2 only) (No Barrier required when used w/ approved mating cable)

(Consult Factory for other electrical conn. for Zone 2/Div 2 units)

## **OPTIONS**

GG Alternate shunt calibration signal

ME 80% Shunt Calibration

MR Alternate wiring

NB 100% Powered Shunt (std on 370)

NG Removable carrying handle

NH Dual welded handle

NC 100% Unpowered Shunt Calibration (std on 170/270)

QX Extended operation- 350° F process temperature

Consult factory for other options, such as carrying handle, optional materials, electrical connectors and replacement fasteners.

Consult WECO® manufacturer for published pressure maximums. WECO® is a Federally Registered Trademark with FMC Technologies.

### NOTE

Specifications reflect standard product, improved performance / mechanical options available.

Modifications may alter specs, consult factory for more information.

<sup>\*</sup> Material meets NACE MR0175 Guidelines

<sup>\*\*</sup> Non-Detachable Design