# Hammer Union 2002/2202 Fitting APG **Pressure Transmitter**













The Hammer Union Pressure Transmitter is an designed for the rugged environments of land based and offshore drilling installations including Mud Logging and Measurement while drilling.

#### **Features**

- Ranges to 20,000 psi
- 4-20 mA or 0-5 VDC output
- WECO® 2002/2202 fitting for 2" line
- Exceptional shock and vibration resistance
- ±0.25% accuracy of full scale
- CSA/ATEX/IECEx Approved



# Hammer Union 2002/2202 Specifications







- Accuracy (linearity, hysteresis, & repeatability): ±0.25% of full scale (BFSL)
- Standard Pressure Ranges: 0-20,000 psis
- Overpressure 1.5 times full scale, 22.5 kpsi, or limit of WECO® fitting, whichever is smallest
- Burst Pressure 3 times full scale, 22.5 kpsi, or limit of WECO® fitting, whichever is smallest
- Compensated Temp: -40 65°C (-40 150°F)
- Temp Effects on Zero & Span: ±0.026% FSO/°C (±0.01% FSO/°F)
- Life: 10 million cycles minimum
- Frequency Response: Less than 5mS



- Storage Temp: -50 120°C (-50 248°F)
- Operating Temp: -40 85°C (-40 185°F)
- Enclosure Protection: IP67



- CSA/cCSAus Contract #237484
- IS: Class 1, Division 1; Groups C & D Class 1, Zone 0, AEx ia IIB T4 Ex ia IIB T4 Ambient: -40 - 85°C
- ATEX: 4-20 mA
   CE 0344 EX II 1G Ex ia IIB T4 Ga
   (Ta = -40°C to +85°C)
- IECEx: 4-20 mA
   EX ia IIB T4 Ga (Ta= -40°C to +85°C)

## Connectivity

Output Signal @ 21°C:
 4-20 mA: 3-30 mA max
 0-5 VDC: 110 mA inrush current
 0-5 VDC: 3.5 mA operating current



- Supply Voltage: 10-28 VDC on sensor
- Loop Resistance: 1012 ohms @ 28 VDC decreasing linearly to 0 ohms @ 10 VDC
- Insulation Resistance: >100 megaohms @ 500 VAC,
- Shunt Cal: 100% of full scale output





- Wetted Materials: Conforms to NACE MR-01-75 and ISO 15156-3 standards
- Incoloy

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# **Model Configuration Options**

### A. Output

□ **L24** 4-20 mA □ **L27** 0-5 VDC

### **B. Pressure Range**

□ **5K** 0 - 5,000 psis
□ **6K** 0 - 6,000 psis
□ **10K** 0 - 10,000 psis
□ **15K** 0 - 15,000 psis
□ **20K** 0 - 20,000 psis

### D. Fitting

□ **P35** Small HU 2002/2202 WECO® fitting □ **P37** Welded HU 2002/2202 WECO® fitting

#### E. Enclosure

□ **K0** No options (standard)
□ **K7** With handle\*

☐ **K1** With protective cage assembly\*

\*Consult factory

### C. Electrical Connection

### 4-20 mA Output Options

□ E1 4 pin 'Mini' (w/ Shunt Cal) 5 pin 'Mini' (w/ Shunt Cal) □ E2 □ **E6** 3 pin Turck Minifast [RSFVL36] □ **E7** 4 pin Reverse Bayonet (w/ Shunt Cal) □ F8 5 pin Threaded MS3102 (w/ Shunt Cal) 3 pin Threaded MS3102 □ **E9** 4 pin Threaded MS3102 □ E11 7 pin Jupiter/Souriau (w/ Shunt Cal) □ E13 6 pin Bayonet (w/ switched Shunt Cal) □ **E15** □ E18 4 pin Rota (w/ Shunt Cal) 4 pin Turck minifast [P-RSFV 40-0.3] □ E20 6 pin Bayonet □ E28 □ **E40** 3 pin Bayonet (w/ Shunt Cal) □ E45 6 pin Bayonet (w/ Shunt Cal) □ E49 6 pin Bayonet (w/ Shunt Cal)

#### 0-5 VDC Output Options

□ **E3** 4 pin Threaded MS3102

☐ **E14** 6 pin Bayonet (w/ switched Shunt Cal)

### 4-20 mA Direct Wiring Options w/ Shunt Cal

□ **E5** 1/2 NPT coupling, flying leads

□ **E17** 1/2 NPT coupling, 10' cable, flying leads

# **Common Model Configurations**

#### **Model Number Model Description** HU-L24-IS-5K-PSIS-E15-P37-K0 4-20mA Output, 6 pin Bayonet w/Shunt Cal, 0-5,000 PSIS, Welded 2002/2202 fitting HU-L24-IS-10K-PSIS-E15-P37-K0 4-20mA Output, 6 pin Bayonet w/Shunt Cal, 0-10,000 PSIS, Welded 2002/2202 fitting 4-20mA Output, 6 pin Bayonet w/Shunt Cal, 0-15,000 PSIS, Welded 2002/2202 fitting HU-L24-IS-15K-PSIS-E15-P37-K0 HU-L24-IS-5K-PSIS-E16-P37-K0 4-20mA Output, 4 pin threaded MS1302 w/Shunt Cal, 0-5,000 PSIS, Welded 2002/2202 fitting HU-L24-IS-10K-PSIS-E16-P37-K0 4-20mA Output, 4 pin threaded MS1302 w/Shunt Cal, 0-10,000 PSIS, Welded 2002/2202 fitting HU-L24-IS-15K-PSIS-E16-P37-K0 4-20mA Output, 4 pin threaded MS1302 w/Shunt Cal, 0-15,000 PSIS, Welded 2002/2202 fitting HU-L24-IS-20K-PSIS-E16-P37-K0 4-20mA Output, 4 pin threaded MS1302 w/Shunt Cal, 0-20,000 PSIS, Welded 2002/2202 fitting

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## **Hammer Union Pressure Transmitter**



### **Built for the Toughest Applications**

Automation Products Group, Inc. brings you the highest quality hammer union pressure transmitter on the market.

There's a reason why so many are switching to the APG hammer union pressure transmitter. We use a NACE compliant nickel alloy and welded construction for the toughest applications in Oil & Gas drilling and production.

Next time you need a hammer union pressure transmitter, call us at (888) 525-7300.



### **Short Lead Times**

• As little as 2 weeks

### **Haz Location Certifications**

- Class 1, Division 1; Groups C & D Class 1, Zone 0
- ATEX II 1G Ex ia IIB T4 Ga
- IECEx EX ia IIB T4 Ga

### **Drain Holes**

- Saves your connector
- Prevents leaks

## **NACE Compliant Nickel Alloy**

- NACE MR-01-75
- ISO 15156-3
- We never sacrifice quality



## **Optional Halo Cage**

Toughest cage design on the market

## **Wide Top Access**

• Just another way we make it easy on you

## Welded Construction

- Built for high vibration
- Field-proven in applications such as Measurement While Drilling

## 1502 & 2002/2202 Fittings

1502 shown, 2002/2202 available