

# Hammer Union 2002/2202 Fitting Pressure Transmitter



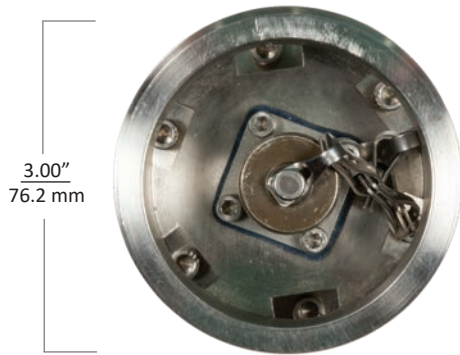
The Hammer Union Pressure Transmitter is designed for the rugged environments of land based and offshore drilling installations including Mud Logging and Measurement while drilling.

## 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
- $\pm 0.25\%$  accuracy of full scale
- CSA/ATEX/IECEX Approved



# Hammer Union 2002/2202 Specifications



## Performance

- Accuracy (linearity, hysteresis, & repeatability):  $\pm 0.25\%$  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:  $\pm 0.026\%$  FSO/°C ( $\pm 0.01\%$  FSO/°F)
- Life: 10 million cycles minimum
- Frequency Response: Less than 5mS

## Environmental

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

## Certification

- 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

## Electrical

- 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, 70°C
- Shunt Cal: 100% of full scale output



## Physical

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

# Model Configuration Options

Model Number: HU -      - IS -      - PSIS -      -      -       
                                  A          B          C          D          E

## 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

## C. Electrical Connection

### 4-20 mA Output Options

- E1**            4 pin 'Mini' (w/ Shunt Cal)
- E2**            5 pin 'Mini' (w/ Shunt Cal)
- E6**            3 pin Turck Minifast [RSFVL36]
- E7**            4 pin Reverse Bayonet (w/ Shunt Cal)
- E8**            5 pin Threaded MS3102 (w/ Shunt Cal)
- E9**            3 pin Threaded MS3102
- E11**           4 pin Threaded MS3102
- E13**           7 pin Jupiter/Souriau (w/ Shunt Cal)
- E15**           6 pin Bayonet (w/ switched Shunt Cal)
- E18**           4 pin Rota (w/ Shunt Cal)
- E20**           4 pin Turck minifast [P-RSFV 40-0.3]
- E28**           6 pin Bayonet
- 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

## 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

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# Common Model Configurations

## Model Number

## Model Description

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

