





30 years of service

Near the turn of the 90's, HDI Instruments, LLC was encouraged by leading oil and gas in place operators to develop a safe, accurate replacement for the inaccurate hydraulic pressure gauges in place throughout the industry. By 1991, HDI had successfully field proven the HDI 2000, a battery powered, digital 6" Panel Gauge. Its successor, the HDI 2000B, is now used heavily in well control applications by leading international oil and gas operators and drilling contractors.

As we evolved, our customer base approached us for a standalone gauge to satisfy their mud pump and standpipe well control monitoring requirements. We listened to our customers and ideas segued into a few new iterations that include cementing, fracking and various production solutions. Over the past 30 years, HDI has developed and continues to improve upon this suite of products focused on surface monitoring which include: Pressure Gauges, Pressure Transmitters, Pump Stroke Counters, Choke Position Indicators, and complete Control Panels for Critical Flow Path on any asset onshore or offshore.

Today, HDI continues to be an industry leader in providing certified instrumentation for oil and gas applications worldwide. Our various systems provide monitoring and controls for a broad range of pressure and position applications.

Safety is critical to our industry's success. Compared with the industry alternatives, HDI's product line enhances safety by providing more accurate and reliable instrumentation which is critical during operations. Our instrumentation also fulfills a value proposition by enabling operators to realize less down time and greater accuracy with real-time, preventative, and trackable data.



Applications

Acidizing

BOP Testing

Cementing

Coil Tubing

Drilling

Fracking

Pumping

Production



HDI has proudly supported leading industry partners for 30 years in both inland and offshore applications.





●HDI

Products



Models 1000B and 2000B Pressure Gauges

Specifications

Pressure Range: Up to 16K



SENSOR CONNECTION



2" 1502 Hammer Union 2" 1502 H2S Hammer Union



1" NPT



2" 2202 H2S Hammer Union



9/16" Autoclave Sensor COMPATIBLE WITH HDI AUTOCLAVE FLANGES ONLY

AUTOCLAVE FLANGES (MUST SELECT 9/16" AUTOCLAVE SENSOR)



Specify Pressure Rating and Size Pressure Rating: 5M – 10M – 15M Size 1 13/16" – 2 1/16"

CROSS OVER FLANGES/WYE ADAPTERS



For Cross Over Flange: Specify Pressure Rating, Size, and Connection

Type

For Wye Adapter: Specify Connection Type

Pressure Rating: 5M - 10M - 15M

Size: 1 13/16 " - 2 1/16 " Connection Type: 1502

ALARM KICKOUT

- No Output
- 4-20 mA Output

Call for Availability

CABLE

The 1000/2000B Pressure Gauge System does not include any cable. Inline Cable is required for new orders; clients with existing Inline Cable may use the existing cable with a new Pressure Gauge System. 4-20mA output cable is only used if the 4-20mA Output was selected in Section 5. Cable is purchased in 5' increments.

- Inline Cable: Distance from Pressure Transducer (Sensor) to Gauge Display
- 4-20mA Output Cable: Distance from Gauge Display to Local J-Box Termination
- Alarm Cable: Distance from Gauge Display to Local J-Box Termination

CERTIFICATION

Model 1000B

Certificate of Compliance and Calibration Certificate

Model 2000B

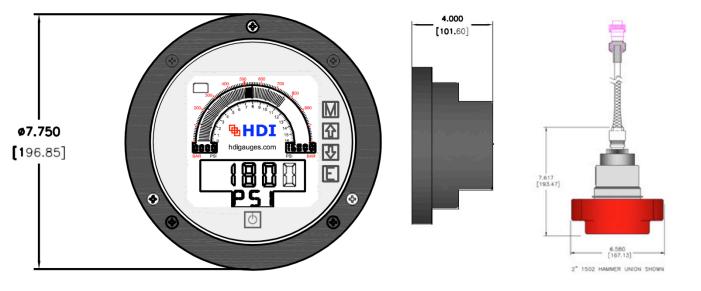
- CSA: Intrinsically Safe Class 1, Division 1, Groups A, B, C, and D
- ATEX
- IECEX: optional, II 1 G, Ex ia IIC T4
- Certificate of Compliance and Calibration Certificate







DIMENSIONS





Models 1000P and 2000P Pressure Gauges

Specifications

Pressure Range: Up to 16K

Tolerance: 6KPSI / 10KPSI / 16KPSI (.5% Tolerance)



SENSOR CONNECTION (SELECT ONE)



2" 1502 Hammer Union 2" 1502 H2S Hammer Union



Flange Sensor Specify Pressure Rating and Size Pressure Rating: 5M 10M 15M Size: 1 13/16 " - 2 1 /16 "



2" 2202 H2S Hammer Union

CROSS OVER FLANGES/WYE ADAPTERS

(MUST SELECT 1502 OR 2202 HAMMER UNION SENSOR)



For Cross Over Flange: Specify Pressure Rating, Size, and

Connection Type

For Wye Adapter: Specify Connection Type Pressure Rating: 5M – 10M – 15M – 20M Size 1 13/16" – 2 1/16" – 3 1/16"

Connection Type: 1502

CONFIGURATIONS

- No Output
- Slave Output
- 4-20mA
- Backlight (1000P only)

SLAVE GAUGE

- Slave Gauge w/No Output
- Slave Gauge w/4-20mA Output
- Slave Gauge w/ Slave Output

CABLE

The 1000P/2000P Pressure Gauge System does not include any cable. Slave Cable is only used if the Slave Output Configuration was selected in Section 4. Cable is purchased in 5' increments.

- 4-20mA Output Cable: Distance from Gauge Display to Local J-Box Terminal
- Backlight Cable: Distance from Gauge Display to Local J-Box Termination (1000P only)
- Slave Cable: Distance from Master Gauge Display to Slave Gauge Display

CERTIFICATION

Model 1000P

Certificate of Compliance and Calibration Certification

Model 2000P

- CSA: Intrinsically Safe Class 1, Division 1, Groups A, B, C, and D
- ATEX
- IECEX
- Certificate of Compliance and Calibration Certification



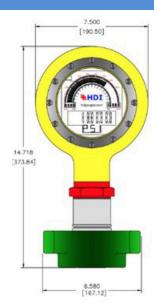




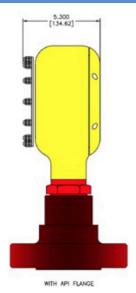
DIMENSIONS



2" 1502 HAMMER UNION SHOWN



2" 2202 HAMMER UNION SHOWN





Models 1021 and 2021 Pressure Transmitters

Specifications

Pressure Range: Up to 16K PSI



SENSOR CONNECTIONS



2" 1502 Hammer Union 2" 1502 H2S Hammer Union



9/16" Autoclave Sensor Compatible with HDI Autoclave Flanges Only



2" 2202 H2S Hammer Union

AUTOCLAVE FLANGES



Specify Pressure Rating and Size Pressure Rating: 5M - 10M - 15M Size $1 \cdot 13/16'' - 2 \cdot 1/16''$

CROSS OVER FLANGES/WYE ADAPTERS



Cross Over Flange



Wye Adapter

<u>For Cross Over Flange</u>: Specify Pressure Rating, Size, and Connection Type

For Wye Adapter: Specify Connection Type

Pressure Rating: 5M - 10M - 15M

Size: 1 13/16 " - 2 1/16 " Connection Type: 1502

Barrier is required for 2021 to maintain I.S.

CABLE

The 1021/2021 Pressure Transmitter System does not include any cable. 4-20mA Output Cable is required for new orders; clients with existing 4-20mA Output Cable may use the existing cable with a new 1021/2021 Pressure Transmitter System. Cable is purchased in 5' increments.

• 4-20mA Output Cable: Distance from 2021 Pressure Transmitter to Local J-Box Termination

CERTIFICATIONS

Model 1021

Certificate of Compliance and Calibration Certificate

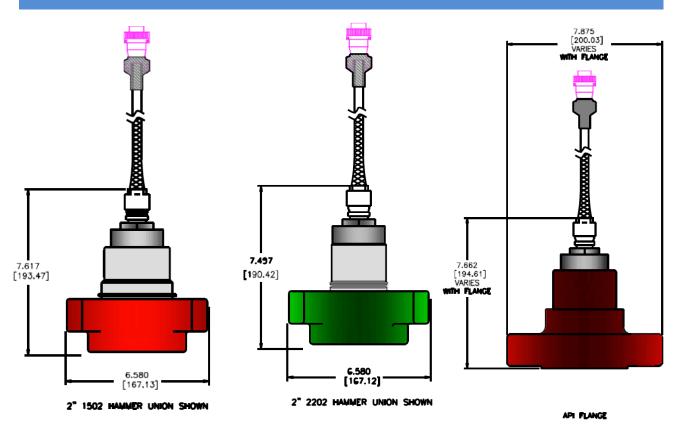
Model 2021

- CSA: Intrinsically Safe Class 1, Division 1, Groups A, B, C, and D
- ATEX: Optional, II
- Certificate of Compliance and Calibration Certificate





DIMENSIONS





Models 1100 and 2100 Pump Stroke Counter



FEATURES

1 to 4 Pumps

SENSOR CONNECTIONS



Proximity (Std)



Micro-Switch
Dual Micro-Switch (4-20mA)

CABLE

The 1100/2100 Pump Stroke Counter Systems includes cable. Cable is required for new orders; clients with existing cable may use the existing cable with a new 1100/2100 Pump Stroke Counter System. Two cable lengths are required, main cable and leg cable.

- Main Cable: Distance from 1100/2100 Gauge Display to Junction Box / Y-Split
- Leg Cable: Distance from Junction Box / Y-split to Pumps

CERTIFICATIONS

Model 1100

Certificate of Compliance and Calibration Certificate

Model 2100

- CSA: Intrinsically Safe Class 1, Division 1, Groups A, B, C, and D
- ATEX: optional, II 1 G, Ex ia IIC T4
- Certificate of Compliance and Calibration Certificate







Model 2200 Choke Position Indicator



SENSOR CONNECTIONS



Linear Potentiometer (Std)
Dual Linear Potentiometer



Rotary (M3D) Potentiometer Rotary (Swaco) Potentiometer



Retractable Potentiometer

CABLE

The 2200 Choke Position Indicator System does not include any cable. Inline Cable is required for new orders; clients with existing Inline Cable may use the existing cable with a new 2200 Choke Position Indicator System.

• Inline Cable: Distance from Sensor to 2200 Gauge Display

CERTIFICATIONS

- CSA: Intrinsically Safe Class 1, Division 1, Groups A, B, C, and D
- ATEX: Optional, II 1 G, Ex ia IIC T4
- Certificate of Compliance and Calibration Certificate







Models 1522 and 2522 Choke Position Indicators



SENSOR CONNECTIONS



Linear Potentiometer (Std)

Dual Linear Potentiometer (4-20mA)



Rotary (M3D) Potentiometer Rotary (Swaco) Potentiometer



Retractable Potentiometer

CONFIGURATIONS

- No Output
- 4-20mA Output
- Slave Output

CABLE

The 1522/2522 Choke Position Indicator System does not include any cable. Inline Cable is required for new orders; clients with existing Inline Cable may use the existing cable with a new 2522 Choke Position Indicator System. 4-20mA Cable is only used if the 4-20mA Output Configuration was selected in Section 2. Cable is purchased in 5' increments.

- Inline Cable: Distance from Sensor to 1522/2522 Gauge Display
- 4-20mA Output Cable: Distance from 1522/2522 Gauge Display to Local J-Box Termination
- Slave Output in between Master and Slave Displays

CERTIFICATIONS

Model 1522

• Certificate of Compliance and Calibration Certificate

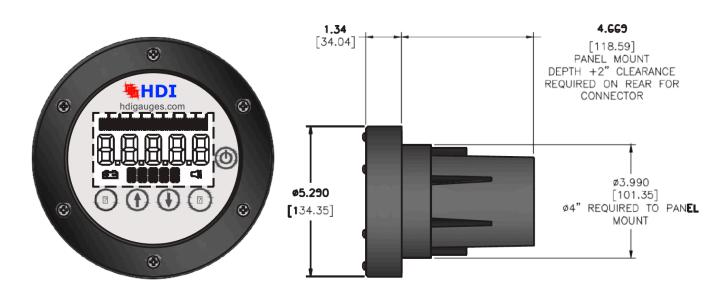
Model 2522

- ATEX
- IECEX
- Certificate of Compliance and Calibration Certificate





DIMENSIONS





Model 3300 Temperature Gauge



SENSOR CONNECTION



2" 1502 Hammer Union 2" 1502 H2S Hammer Union



1" NPT



2" 2202 H2S Hammer Union

CONFIGURATIONS

- No Output
- 4-20mA Output
- Slave Output

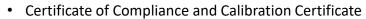
CABLE

The 3300 Temperature Gauge does not include any cable. Inline Cable is required for new orders; clients with existing Inline Cable may use the existing cable with a new 3300 Temperature Gauge System. 4-20mA Cable is only used if the 4-20mA Output Configuration was selected in Section 2. Cable is purchased in 5' increments.

- Inline Cable: Distance from Sensor to 3300 Gauge Display
- 4-20mA Output Cable: Distance from 3300 Gauge Display to Local J-Box Termination
- Slave Output in between Master and Slave Displays

CERTIFICATIONS

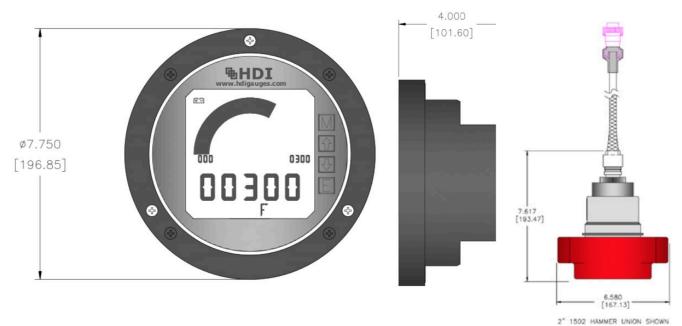
- ATEX
- CSA







DIMENSIONS





Model 3200 Mud Gas Differential Monitoring System



SENSOR CONNECTION



2" 1502 Hammer Union
2" 1502 H2S Hammer Union



1" NPT



2" 2202 H2S Hammer Union

CABLE

The system does not include any cable. Inline Cable is required for new orders; clients with existing Inline Cable may use the existing cable with a new 3200 Mud Gas Differential Monitoring System. 4-20mA Cable is only used if the 4-20mA Output Configuration was selected in Section 2. Cable is purchased in 5' increments.

- Inline Cable: Distance from Sensor to the 3200 Mud Gas Differential Monitoring System.
- 4-20mA Output Cable: Distance from 3200 Mud Gas Differential Monitoring System to Local J-Box Termination.
- Slave Output in between Master and Slave Displays.

CERTIFICATIONS

- ATEX
- IECEX
- Certificate of Compliance and Calibration Certificate





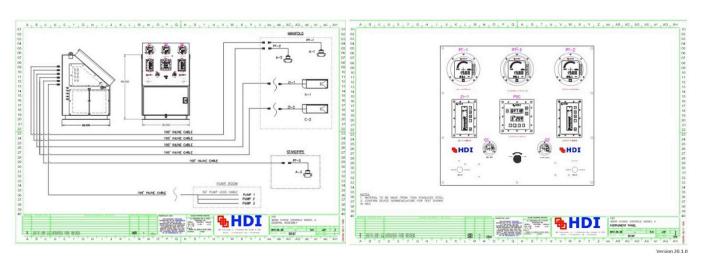


9000 Choke Console Series

Contact sales for further operational parameter specifications



DIAGRAMS





Battery Powered Instrumentation



FEATURED MODELS

- 1000P / 2000P Pressure Gauge
- 1000B / 2000B Pressure Gauge
- 2100 Pump Stroke Counter
- 2200 Choke Position Indicator
- 2500 Choke Position Indicator
- 3300 Temperature Gauge

FEATURES

- Retrofits existing instrumentation
- Certified systems by CSA, IECEX, and ATEX for Class 1, Div 1 hazardous environments
- Prevents gauge signal loss during critical rig power outages
- Independently powered system; guaranteed, twelve-month battery life with continued use
- Long life span on system components due to consistent current draw from battery
- Numerous gauges still in operation since 2006



Rig Powered Instrumentation



FEATURED MODELS

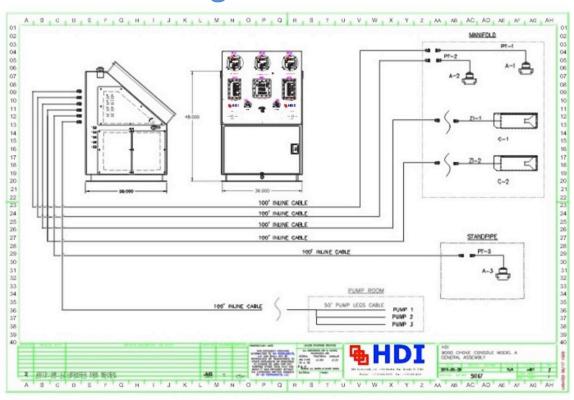
- 1021 / 2021 Pressure Transmitter
- V9000 Virtual Choke Console

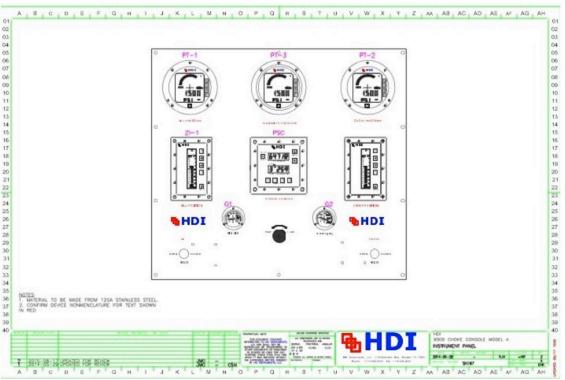
FEATURES

- · Retrofits existing instrumentation
- Certified systems by CSA and ATEX for Class 1, Div 1
- Hazardous Environments
- 4-20mA output signal for simple integration into drilling, monitoring, and measurement systems



Product Configurators

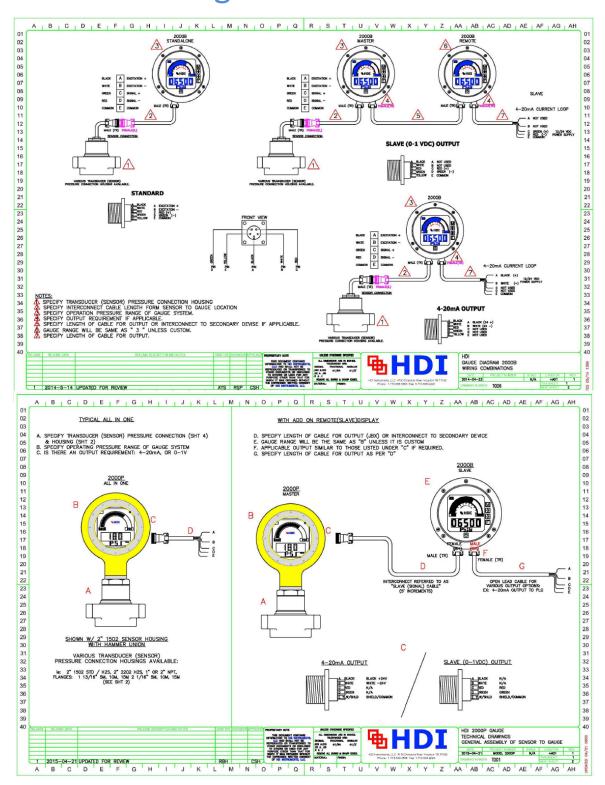




Version 20.1.0



Product Configurators



●HDI

Service & Support





Service Plan

HDI Service Department acknowledges the requirement for fast acting, competent and reliable service personnel required to perform recommended annual preventative maintenance of ALL instrumentation onboard operational rigs and which needs reactivation for their upcoming drilling contracts. In short, HDI Service Department's goal is to be your one-stop shop for service needs.

Equipment serviced:

- HDI instruments (HDI 2000B pressure gauges, HDI 2100 Pump Stroke Counters, HDI 2200 Choke Position Indicators, HDI 2021 Pressure Transmitters)
- Hydraulic / Analog gauges
- Pressure Relief Valves (Hydraulic and Pneumatic)
- Chart Recorders
- Torque Wrenches

Highlights of APM Plan:

- Significant annual cost savings
- Service-ready and customer service-oriented team
- No heavy conex containers required due to mobile calibration pump and tools usage
- Excellent customer feedback for every job executed based on technical knowledge, speedy workmanship and professionalism

Key Advantages:

- Exceptionally efficient service technicians (one- or two-man team)
- Recalibrating up to 80 units per day with two-man team
- Electronic Calibration Certificates available immediately

For a detailed proposal, contact HDI's Service Director:

Joseph Ebenezer 713-446-2212 joseph@hdigauges.com



Service Plan

Annual Preventative Maintenance (APM) Service Plan In-House Calibration

In addition to onsite calibration, HDI Service Department can assist the rigs with in-house recalibration services at our Houston Headquarters office.

Simplified RMA Process:

- Online RMA Form https://hdigauges.com/service/repairs/ Note: Include HDI serial numbers (if applicable)
- Sender and HDI will receive email with RMA#
- Ship the equipment to HDI
- HDI will provide final repair quote after in-house inspection
- HDI will ship the equipment back with calibration sheet

In-House Repairs On-Site Calibration Services

Enabling service cost savings with HDI's Accuracy, Reliability and Customer Satisfaction



Hydraulic Gauges, PRVs, Chart Recorders & Torque Wrenches



Efficient 2-man service teams (up to 80 units serviced per day)



No heavy connex containers required



Speedy and independent work Minimal supervision required



Electronic calibration certificates provided on-site









