

P T X 6 6 1 S e r i e s

Hammer Union Pressure Transmitters

- Ranges from 350 bar to 1035 bar
- 200% overpressure
- $\pm 0.1\%$ accuracy
- 0.1% FS/annum stability
- Rugged, modular and field repairable design
- Low cost of ownership



PTX 661 Series

Hammer Union Pressure Transmitters

For 30 years, Druck has continually developed and manufactured a range of advanced micromachined silicon pressure sensors. These are used worldwide for a wide range of demanding and critical applications including oil and gas, petrochemical, aerospace, automotive, industrial and research environments.

The PTX 661 series of Hammer Union Transmitters further extends the range of high level output pressure sensors offering new levels of measurement accuracy, stability and flexibility from a standard, rugged product.

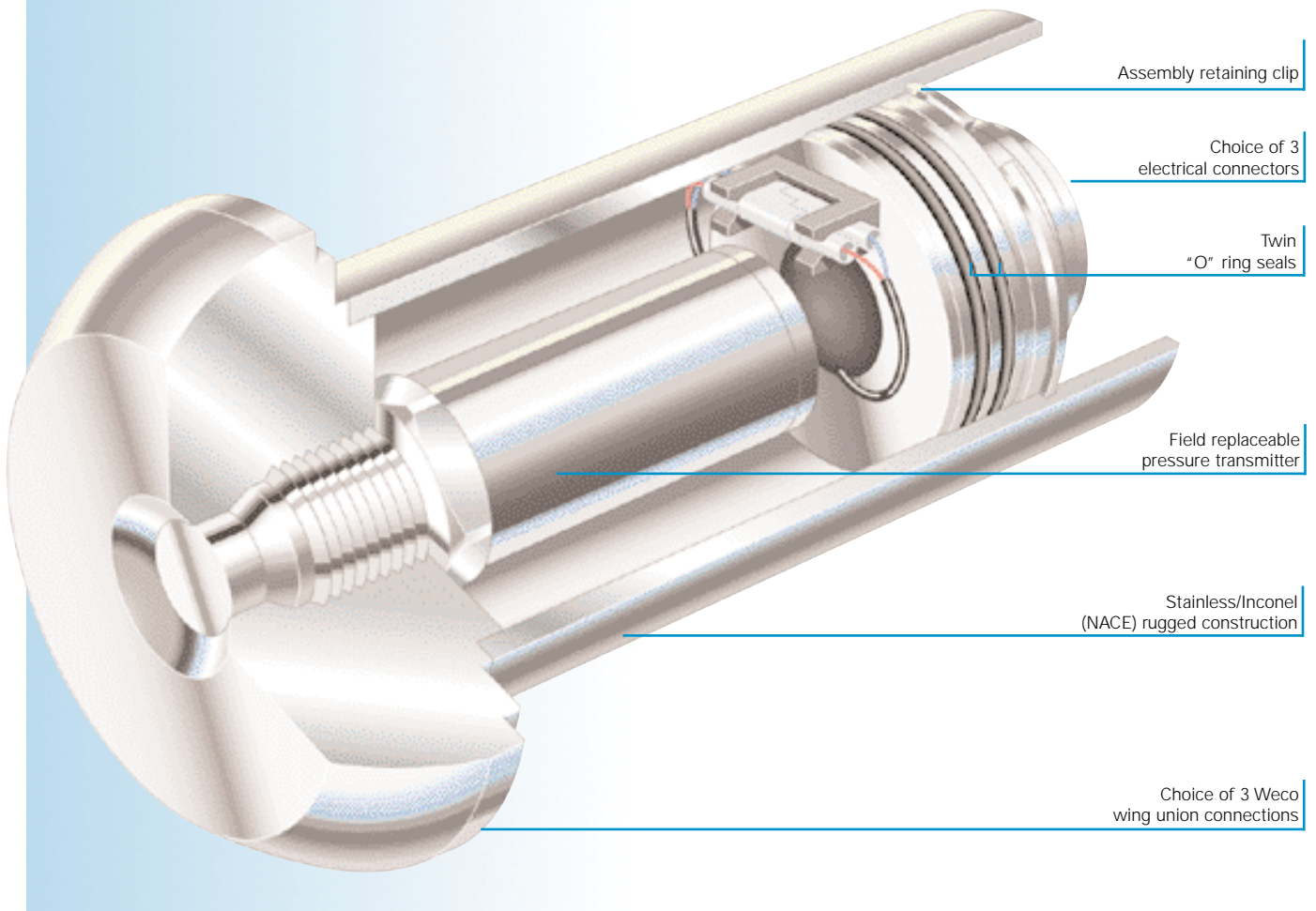
Advanced technology

At the heart of the PTX 661 series is an advanced, high stability measuring element micromachined from single crystal silicon within Druck's own Class 100 processing facility. The silicon element is mounted within a high-integrity glass-to-metal seal assembly and is fully isolated from the pressure media by an electron beam welded Inconel isolation diaphragm.

Surface mounted electronics condition the output from the silicon sensor, correcting for thermally induced errors before providing the standard 2-wire compatible 4 - 20mA loop signal, and with a fast 2kHz response time, the device is also suitable for measuring both static and dynamic mud pressures.

Rugged design

The PTX 661 series has been specifically designed to withstand the extremely harsh environments of both onshore and offshore drilling operations, for example, where high shock and vibration levels are encountered. In addition, the transmitter is available with 1002, 1502 or 2202 Weco Wing Union pressure connections, and uses NACE specified materials which are compatible for sour gas service.



STANDARD SPECIFICATIONS

Pressure Measurement

Operating Pressure Range

0 to 350, 700, 1035 bar sealed gauge or absolute.

0 to 5000, 10000, 15000 psi sealed gauge or absolute.

Overpressure

The operating pressure range can be exceeded by the following without degrading performance:
2 x F.S. or 1400 bar, whichever is less.

Pressure Containment

The transmitter will safely contain up to 2000 bar maximum without leakage of pressure media.

Pressure Media

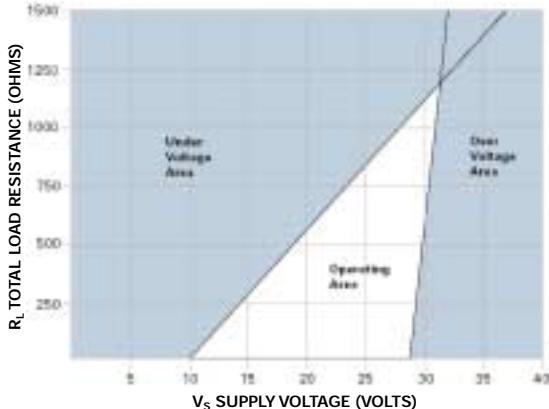
Fluids compatible with 316L Stainless Steel (NACE compatible), Inconel X750 and Inconel 625.

Supply Voltage

10 - 28Vd.c.

The minimum supply voltage that must appear across the transmitter terminals is 10 Vd.c. and is calculated by:

$$V_{\text{MIN}} = V_s - (0.02 \times R_L)$$



Output Current

4 - 20mA (2-wire). Proportional for zero to full scale pressure.

Performance Specification

Accuracy

Combined Non-linearity, Hysteresis and Repeatability: $\pm 0.1\%$ F.S. BSL.

Zero Offset and Span Setting

$\pm 1\%$ F.S. (zero) and $\pm 0.5\%$ F.S. (span) @ 23°C.

Long Term Stability

At standard reference conditions the calibration will not change by more than 0.1%F.S./year.

Temperature Range

Process: -40° to 120°C

Ambient: -40° to 120°C

Compensated: -20° to 80°C

Storage: -54° to 150°C

Temperature Effects

The output will not deviate by more than $\pm 1\%$ over the full compensated range of -20° to 80°C.

Response Time

The electronic response time will be better than 0.5msec. (2 kHz).

Physical Specification

Pressure Connection

A choice of 3 WECO pressure connections is provided:

-8547 WECO Wing Union #1502

-8593 WECO Wing Union #2202

-8687 WECO Wing Union #1002

Ingress Protection

IP66 (Nema 4x).

Conformity

CE Marked.

Certified Intrinsically Safe by:

Baseefa EEx ia IIC T4 (Ta = 80°C). Certificate Ex97D2058.

Factory Mutual, Class 1, Div 1 Groups A, B,C and D.

Canadian Standards Association, Class 1, Div 1, Groups A, B, C and D.

Electrical Connection

A choice of 3 popular electrical connections are provided:

10 pin LEMO Connector: Part Number EGG - 4K - 310.

6 pin bayonet Connector: Part Number MIL - 24682.

4 pin Glenair Connector: Part Number MIL - 5015.

Weight

3 kg nominal.

Mechanical Shock

1000g for 1msec in each of three mutually perpendicular axes will not affect calibration.

Vibration

Response less than 0.05% F.S./g at 30g peak 10Hz - 2kHz, limited by 12mm double amplitude. (MIL - STD 810C Proc 514.2-2 Curve L).

OPTIONS

Please specify option and part number as shown when ordering (refer to information overleaf).

(A) Carrying Handle: Part Number: XA2448-1-01.

(B) Mating Electrical Connectors:

6 pin Bayonet Connector: Part Number 163-009

4 pin Glenair Connector: Part Number 160-119

Note: Mating connector for 10 pin LEMO option is not available.

(C) Replaceable Pressure Transmitter Insert: Part Number: PTX 721-8518 (State pressure range).

(D) Pressure Transmitter Insertion/extraction Tool: Part Number: F2186-1

(E) Electrical Connection Extraction Tools:

10 pin Lemo Connector: Part Number F2299/1

6 pin bayonet Connector: Part Number F2299/2

4 pin Glenair Connector: Part Number F2299/3.

PTX 661 Series



Hammer Union Pressure Transmitters

ORDERING INFORMATION

Please state the following:

(1) Type number

Code

PTX 661 Base Model

Code	Electrical Connection
1	10 pin LEMO Connector
2	6 pin Bayonet Connector
3	4 pin Glenair Connector
Code	Pressure Connection
8547	WECO #1502
8593	WECO #2202
8687	WECO #1002

PTX 661 - 1 - 8547

(2) State pressure range.

(3) State options required.

CALIBRATION STANDARDS

Transducers manufactured by Druck are calibrated against precision pressure calibration equipment which is traceable to International Standards.

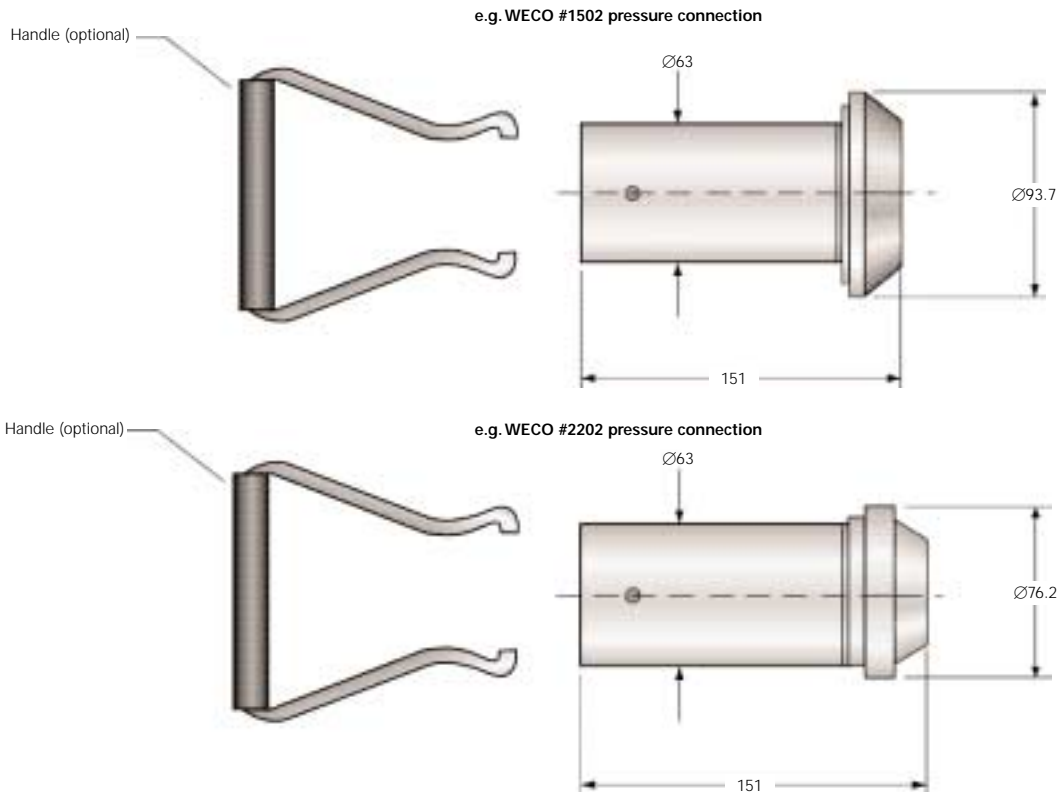
RELATED PRODUCTS

Druck manufacture a wide range of pressure sensors, portable field calibrators, deadweight testers, pressure controllers/calibrators and indicators. A selection of these products is shown below. Please contact Druck for further information and datasheets.



Continuing development sometimes necessitates specification changes without notice.

INSTALLATION DRAWINGS - Dimensions in mm



Druck Limited

Fir Tree Lane, Groby
Leicester, LE6 0FH, England

Tel: +44 (0) 116 231 7100
Fax: +44 (0) 116 231 7103
E-Mail: sales@druck.com
Internet: www.druck.com



0221



Agent:

SUNSTAR 商斯达实业集团是集研发、生产、工程、销售、代理经销、技术咨询、信息服务等为一体的高科技企业，是专业高科技电子产品生产厂家，是具有 10 多年历史的专业电子元器件供应商，是中国最早和最大的仓储式连锁规模经营大型综合电子零部件代理分销商之一，是一家专业代理和分销世界各大品牌 IC 芯片和电子元器件的连锁经营综合性国际公司，专业经营进口、国产名厂名牌电子元件，型号、种类齐全。在香港、北京、深圳、上海、西安、成都等全国主要电子市场设有直属分公司和产品展示展销窗口门市部专卖店及代理分销商，已在全国范围内建成强大统一的供货和代理分销网络。我们专业代理经销、开发生产电子元器件、集成电路、传感器、微波光电元器件、工控机/DOC/DOM 电子盘、专用电路、单片机开发、MCU/DSP/ARM/FPGA 软件硬件、二极管、三极管、模块等，是您可靠的一站式现货配套供应商、方案提供商、部件功能模块开发配套商。商斯达实业公司拥有庞大的资料库，有数位毕业于著名高校——有中国电子工业摇篮之称的西安电子科技大学（西军电）并长期从事国防尖端科技研究的高级工程师为您精挑细选、量身订做各种高科技电子元器件，并解决各种技术问题。

更多产品请看本公司产品专用销售网站：

商斯达中国传感器科技信息网：<http://www.sensor-ic.com/>

商斯达工控安防网：<http://www.pc-ps.net/>

商斯达电子元器件网：<http://www.sunstare.com/>

商斯达微波光电产品网：[HTTP://www.rfoe.net/](http://www.rfoe.net/)

商斯达消费电子产品网：<http://www.icasic.com/>

商斯达实业科技产品网：<http://www.sunstars.cn/>

传感器销售热线：

地址：深圳市福田区福华路福庆街鸿图大厦 1602 室

电话：0755-83370250 83376489 83376549 83607652 83370251 82500323

传真：0755-83376182 (0) 13902971329 MSN: SUNS8888@hotmail.com

邮编：518033 E-mail:szss20@163.com QQ: 195847376

深圳赛格展销部：深圳华强北路赛格电子市场 2583 号 电话：0755-83665529 25059422

技术支持：0755-83394033 13501568376

欢迎索取免费详细资料、设计指南和光盘；产品凡多，未能尽录，欢迎来电查询。

北京分公司：北京海淀区知春路 132 号中发电子大厦 3097 号

TEL: 010-81159046 82615020 13501189838 FAX: 010-62543996

上海分公司：上海市北京东路 668 号上海赛格电子市场 2B35 号

TEL: 021-28311762 56703037 13701955389 FAX: 021-56703037

西安分公司：西安高新开发区 20 所(中国电子科技集团导航技术研究所)

西安劳动南路 88 号电子商城二楼 D23 号

TEL: 029-81022619 13072977981 FAX:029-88789382