

**XHP SERIES TRANSDUCER INSTALLATION AND MAINTENANCE INSTRUCTIONS
FOR NONINCENDIVE APPLICATIONS PER UL Ex Ic IIC Gc and ATEX II 3 G**

*Please read all instructional literature carefully and thoroughly before starting.
Refer to the listing of Recommended Practices and Liabilities.*

GENERAL:

THESE DEVICES SHALL BE USED WITHIN THEIR RATINGS.



BEFORE INSTALLING, CHECK THE TRANSDUCER COMPATIBILITY TO THE PROCESS MEDIA IN CONTACT WITH THE WETTED PARTS. THE XHP SERIES TRANSDUCER FEATURES ALL 316L STAINLESS STEEL WETTED SURFACES IN CONTACT WITH THE PROCESS MEDIA.

PROOF PRESSURE: CHECK THE PROOF PRESSURE RATING ON THE APPLICABLE PRODUCT DRAWING. THE XHP TRANSDUCERS HAVE INDIVIDUALLY SPECIFIED PROOF PRESSURES AS LISTED ON THE APPLICATION SPECIFIC DRAWING. PROOF PRESSURE IS DEFINED AS THE MAXIMUM PRESSURE TO WHICH THE TRANSDUCER MAY BE SUBJECTED WHICH CAUSES NO PERMANENT DAMAGE.

MAINTENANCE: THE XHP TRANSDUCERS HAVE NO FIELD REPLACEABLE PARTS. FACTORY WARRANTY SERVICE IS AVAILABLE.

ELECTRICAL: BEFORE INSTALLATION, DETERMINE THE CURRENT LOOP VOLTAGE AND LOAD RESISTANCE. VOLTAGES IN EXCESS OF THE RATINGS MAY DAMAGE THE INTERNAL ELECTRONIC CIRCUITRY.

THE LOAD RESISTANCE REQUIREMENTS VARY LINEARLY FROM 0 OHMS AT 18 VDC LOOP VOLTAGE TO 100 OHMS AT 30 VDC LOOP VOLTAGE. FOR EXAMPLE, AT 24 VDC, MAXIMUM LOAD RESISTANCE IS 500 OHMS.

OUTPUT: THE XHP SERIES TRANSDUCERS HAVE INDIVIDUALLY SPECIFIED CURRENT OR VOLTAGE OUTPUTS TO PRESSURE INPUTS AS LISTED ON THE PRODUCT DRAWING AND MARKED ON THE PRODUCT.

INSTALLATION:



DISCONNECT PRESSURE AND UNPOWER ELECTRICAL CIRCUITS PRIOR TO INSTALLATION.

MOUNTING: MOUNT UNIT WHERE SHOCK, VIBRATION AND TEMPERATURE VARIATIONS ARE MINIMIZED. THE MAXIMUM SERVICE TEMPERATURE LIMIT OF 80°C BASED ON AMBIENT TEMPERATURE OF 55°C. MINIMUM SERVICE TEMPERATURE LIMIT OF 0°C.

THESE DEVICES SHALL BE INSTALLED IN AN ENVIRONMENT OF NOT MORE THAN POLLUTION DEGREE 2.

MOUNT USING THE HEX WRENCH FLATS ON THE PROCESS FITTING END.

The XHP series pressure transducers are sold with various end seal types of pressure connections. The pressure connection arrangement details are as given on the applicable envelope/installation drawing.

Unless otherwise specified, gaskets and or other seals are not provided by Precision Sensors and shall be used per the requirements of the system into which the device is being installed.

Precision Sensors recommends the use of industry standard and pressure fitting manufacturer recommended tightening torques.

ELECTRICAL WIRING:

The suitability of the terminals for use as field wiring connections shall be determined in the end-use application.

FREE LEAD WIRE TYPES:

The unit is supplied with wire leads as indicated on the applicable product drawing. The end-user may install crimp type connectors, use terminal blocks or solder the wires as required by the installation.

Note that a small capillary vent tube is used on the units with wires to sense ambient pressure on the gage pressure units. Keep this tube opening in a clean, dry area to prevent unit degradation.

**XHP SERIES TRANSDUCER INSTALLATION AND MAINTENANCE INSTRUCTIONS
FOR NONINCENDIVE APPLICATIONS PER UL Ex ic IIC Gc and ATEX II 3 G**

*Please read all instructional literature carefully and thoroughly before starting.
Refer to the listing of Recommended Practices and Liabilities.*

INTERMATING CONNECTOR TYPES:

The unit is supplied with a pre-installed connector per the envelope/installation drawing. The end-user shall install the mating connector per the manufacturer requirements.

MILITARY CIRCULAR CONNECTOR TYPES:

The unit is supplied with an integral circular connector as indicated on the applicable envelope/installation drawing. The end-user shall install the mating connector per the specification requirements.

VERIFICATION:



PRECISION SENSORS RECOMMENDS THAT AFTER INSTALLATION THE OPERATION OF THE UNIT BE VERIFIED.

The pressure connection and electrical connections shall be verified via test to ensure the connections and installations are correct.

When correctly powered and operating, the unit LED will be illuminated.

Periodic inspection of the unit is recommended to ensure continued operation. Inspection intervals shall be determined by the user based on the system requirements. The unit has no internally serviceable parts.

Color bands are provided to allow identification of the measured gas by the end user.

ZERO ADJUSTMENT:

The zero output is adjusted and verified at the factory and may be left as is. If improved accuracy of zero output is required the customer can make adjustments via the internal zero adjustment potentiometer.

Remove the slotted sealing screw from the unit as located per the detailed envelope drawing. Vent the unit to atmospheric pressure. With the unit powered and a monitor on the electrical output the internal zero potentiometer can be adjusted. A 1.8mm screwdriver is recommended.

RECOMMENDED PRACTICES AND WARNINGS:

Precision Sensors recommends careful consideration of the following factors when specifying and installing pressure transducers:

- To avoid damaging unit, proof pressure and maximum temperature of 80°C based on ambient temperature of 55°C. Minimum service temperature of 0°C. Operation of the unit up to maximum pressure or temperature is acceptable on a limited basis (e.g., start-up, testing) but continuous operation must be restricted to the designated adjustable range. Excessive cycling at maximum pressure or temperature limits could reduce sensor life.
- A back-up unit is necessary for applications where damage to a primary unit could endanger life, limb or property.
- Install unit where shock, vibration and ambient temperature fluctuations will not damage unit or affect operation.
- Unit must not be altered or modified after shipment. Consult Precision Sensors if modification is necessary.
- Monitor operation to observe warning signs of possible damage to unit, such as drift in zero output. Check unit immediately.
- Preventative maintenance and periodic testing is necessary for critical applications where damage could endanger property or personnel.
- Electrical ratings stated in literature and on nameplate must not be exceeded. Wire unit according to local and national electrical codes, using wire size recommended in installation sheet.
- Do not mount unit in ambient temperatures exceeding published limits.

LIMITATION OF SELLER'S LIABILITY:

Seller's liability to Buyer for any loss or claim, including liability incurred in connection with (i) breach of any warranty whatsoever, expressed or implied, (ii) a breach of contract, (iii) a negligent act or acts (or negligent failure to act) committed by Seller, or (iv) an act for which strict liability will be imputed to seller, is limited to the "limited warranty" of repair and /or replacement as so stated in our warranty of product. In no event shall the Seller be liable for any special, indirect, consequential or other damages of a like general nature, including, without limitation, loss of profits or production, or loss or expenses of any nature incurred by the buyer or any third party.

REFERENCE INFORMATION:

Certificate Number IECEx UL 15.0034U
Ex ic IIC Gc
Standards used for Certification: IEC 60079-0 6th ed; IEC 60079-11 6th ed.

DEMKO 19 ATEX 2238U
II 3 G Ex ic IIC Gc
Standards used for Certification: EN 60079-0:2012+A11:2013; EN 60079-11:2012