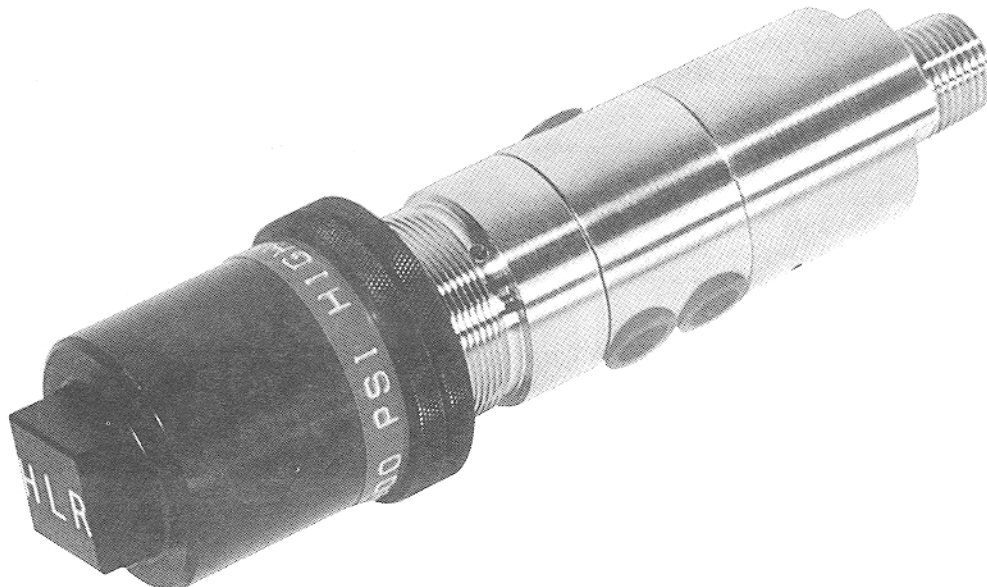


# ***HLR Controls***

**Distributed by Peterson Instruments**  
**High (PSH/PSHH) or Low(PSL/PSLL) Pressure Sensor**  
**MODEL 7970**  
Product Bulletin HLR 1

The HLR 7970 Pressure Sensor is a two position, three way, automatic reset, pressure balance spool control valve used to respond to a predetermined Pressure Setting. In safety control systems, the Pressure Sensors initiate safety valve closure to safeguard facilities upon detection of abnormal pressure. In other applications, they are used to start/stop various control functions within particular pressure range limits. All standard HLR 7970 Pressure Sensors have a pressure Adjustment Range from 10 to 10,000 PSI (.69 to 690 BAR). This is accomplished by use of the patented, self-contained, "variable size piston arrangement" concept. Piston sizes are varied by rearranging or orienting the exposed or inlet surface area to respond to particular pressure ranges. Varying the size of the surface area is accomplished by using piston components that literally slide within one another or having two of the parts that can rise or fall in unison. HLR 7970 Series Pressure Sensors are commonly referred to as "Block and Bleed Stick Pilots".



Especially well suited for the following applications:

1. Systems with high concentrations of sour gas or other corrosive components.
2. Systems that could experience greater than normal operation pressure. Over pressuring ruptures diaphragms, helical coils and Bourdon tubes.
3. Systems where the pressure detection requirements would vary greatly over a period of time. (Changing pressure settings required to match new operational conditions).
4. Systems that require a non-constant bleed type control. (Some Bourdon tube Pressure Sensors are constantly venting during normal operation).
5. Areas subjected to vibration cause other Pressure Sensors with delicate balanced components to malfunction when shaken.

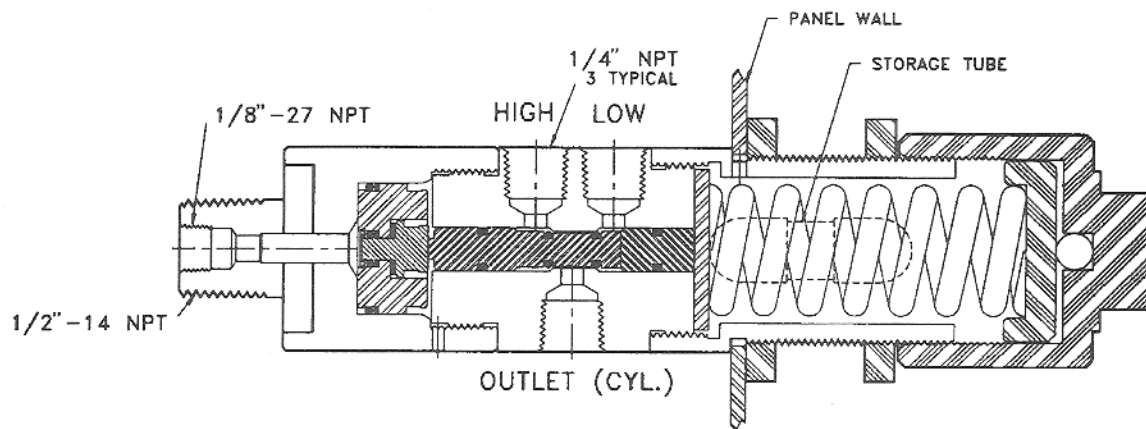
## SPECIFICATIONS\*

	<b>7970 Sour Service Standard</b> (For low concentrations of sour gas.)	<b>7970T NACE Certified<sup>1</sup></b> (For high concentrations of sour gas.)
Process Connections	1/2" MNPT and 1/8" FNPT	1/2" MNPT and 1/8" FNPT
Instrument Air Connections	1/4" MNPT	1/4" MNPT
Instrument Control Pressure	30 psi recommended (100 psi pneumatic and hydraulic units available.)	30 psi recommended (100 psi pneumatic and hydraulic units available.)
Instrument Control Medium	Clean/Dry Compressed Air (100 psi pneumatic and hydraulic units available.)	Clean/Dry Compressed Air (100 psi pneumatic and hydraulic units available.)
Sensing Pressure	10 to 10000 psig <sup>2,3</sup>	10 to 10000 psig <sup>2,3</sup>
Body	316 SST	316 SST
Pistons, Stems and other Internal Parts	316 SST	316 SST
Process Wetted Seals	Viton™	Teflon™
Panel Mount Cutout (if desired)	1-5/8"	1-5/8"
Adjustor Cap	Delrin™	Delrin™

<sup>1</sup> = NACE Certificate of compliance is provided with each unit.

<sup>2</sup> = 10 to 10000 psig is divided into four separate piston configurations with all parts for all ranges contained within the spring housing therefore no additional parts are necessary. All range configurations are easily changed in the field.

<sup>3</sup> = For pressure ranges of 2-50 psig ask about the model 7970LP



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Teflon/Delrin/Viton are products of DuPont

\*= Specifications subject to change without notice please call for the latest revisions.