



450 SERIES

- Flush mounting sanitary design
- Pneumatic output, or electronic (4 mA to 20 mA) output when paired with KING-GAGE 860 Series Sensor Control or 868 Series D/P Purge Control
- Field replaceable sensor diaphragm
- Stable output during CIP cycles
- FDA-approved silicone rubber O-ring seal forms a crevice-free, positive compression seal between the diaphragm probe and mounting shell
- Flush weld mountings are available with product contact surfaces of 316L Stainless Steel
- Meets current standards for 3A

APPLICATIONS

- Food & beverage
- Chemical processing
- Power generation
- Pharmaceutical
- Water & wastewater
- Pulp & paper
- Marine

SPECIFICATIONS

Sensitivity	Less than .001 psi (± 0.02 inH ₂ O/.508 mm water)
Repeatability	Better than ± 0.002 psi ($\pm .05$ inH ₂ O/1.27 mm water)
Accuracy	± 0.007 psi (± 0.2 inH ₂ O/.508 mm water)
Temperature range	30 °F to 300 °F (0 °C to 149 °C)
Pressure range	Sensor is a 1:1 pneumatic force balance diaphragm capable of repeating hydrostatic pressure as an equivalent pneumatic output. Functional pressure limit is 130 psi (or 3598 inches @ 1.00 specific gravity) determined by supply pressure (35–150 psi) less 20 psi.
Maximum depth measurement	1937 inH ₂ O (49.0 m water)
Wetted materials	Silicone rubber O-ring (certified to 3-A 18-03) Titanium diaphragm, commercially pure (certified to 3-A 74-06). Optional diaphragm materials: Silicone rubber Fittings/adaptor wetted surfaces are typically 316L Stainless Steel (as supplied by KING-GAGE).
Air Consumption	Total air consumption of sensor package (including sensor control) is less than 10 CFH or 0.16 scfm.
D/P sensor control combined accuracy*	0 psid to 5 psid transmitter/control $\pm 0.34\%$ full scale 0 psid to 10 psid transmitter/control $\pm 0.27\%$ full scale 0 psid to 15 psid transmitter/control $\pm 0.24\%$ full scale 0 psid to 30 psid transmitter/control $\pm 0.22\%$ full scale 0 psid to 50 psid transmitter/control $\pm 0.21\%$ full scale
Voltage supply requirements	14 Vdc tp 40 Vdc (unregulated) to power signal loop using 868 D/P Sensor Control.
Compressed air supply requirements	35 psig to 150 psig (2.4–10.3 bar); clean, dry air (or inert gas)

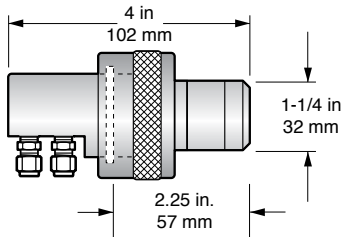
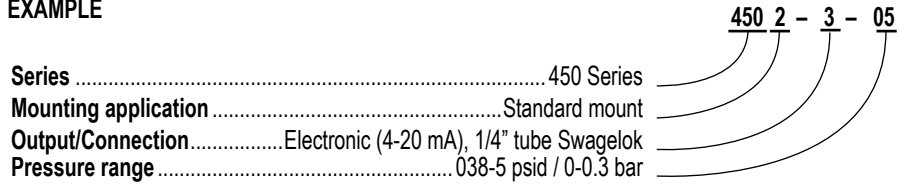
* Combined accuracy refers to the primary accuracy of the sensor in combination with the secondary accuracy of the D/P transmitter.

ORDERING INFORMATION			
SERIES	450		
MOUNTING APPLICATIONS	1 Short mount (single wall, non-insulated tank) *	2 Standard mount (insulated wall up to 4.5" / 114 mm; or adapter for non-KING-GAGE "short" shell) **	3 Long mount (insulated wall up to 6.75" / 171 mm; or adapter for non-KING-GAGE "standard" shell) ***
OUTPUT / CONNECTIONS	0 Pneumatic (pressure) 1/4" tube Swagelok	3 Electronic (4-20 mA), 1/4" tube Swagelok	
	1 Pneumatic (pressure) 1/4" tube Polyflo	4 Electronic (4-20 mA) 1/4" tube Polyflo	
PRESSURE RANGES	02 0-2 psid / 0-0.14 bar	15 0-15 psid / 0-1.03 bar	38 Pneumatic, includes SafeGard option (25-650" range)
	05 038-5 psid / 0-0.3 bar	30 0-30 psid / 0-2.06 bar	48 Pneumatic, includes SafeGard option (650-1750" range)
	10 0-10 psid / 0-0.69 bar	50 0-50 psid / 0-3.44 bar	58 Pneumatic, none

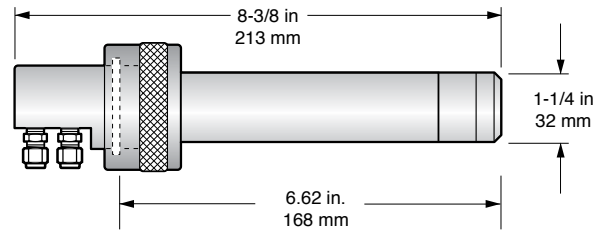
NOTE: AcraSensor packages listed include diaphragm sensing unit, 860 Series Sensor Control or 868 Series D/P Purge Control, Swagelok or PolyFlo fittings, and bundled 3-tube airline cable

- * Use with weld-in shell 1777-2 or to fit 2" sanitary clamp fitting adapter
- ** Use with weld-in shell 1777 or to fit adapter for non-KING-GAGE "short" shell
- *** Use with weld-in shell 1777-3 or to fit adapter for non-KING-GAGE "standard" shell

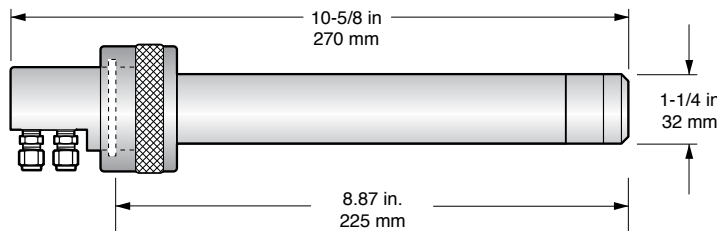
EXAMPLE



Short Mount AcraSensor



Standard Mount AcraSensor



Long Mount AcraSensor