

Optima SERIES H319ST



2 Wire hydrostatic level transmitter for hygienic applications

Features

- Through tank construction
- EEXia IIC T5 certified option
- complies with RFI / EMC Standards
- Fully Welded Construction
- superior Low Range Sensitivity / Accuracy
- Unrivalled Overload Tolerance
- applications in food & dairy



The 'Optima' series employs the established measurement principle of pressure sensitive diaphragm / LVDT. PSM's unparalleled experience in the use of this technology in many thousands of applications results in a transmitter designed to perform accurately and reliably in the most demanding and arduous duties.

Diaphragms are produced in corrosion resistant alloys and are offered in a number of "nominal" ranges, each engineered for optimum performance at its measurement span. Diaphragm travel is limited by mechanical design, providing unmatched tolerance to high overload and shock conditions.

Construction

TIG fusion technology and Mass Spectrometry analysis ensures complete integrity of all welded joints. Thermal stress relief techniques ensure long-term service stability.

Through tank construction is standard. All hygienic sensors are supplied with improved temperature compensation (coefficient to +/- 0.02% per deg C) as standard to cope with the significant temperature fluctuations during 'Cleaning In Place' processes (CIP)

In addition, the Hygienic 319ST (through tank mounting) is profiled to directly replace the obsolete pneumatic sensors on force balance type systems to enable easy replacement with electronic systems.

Benefits

Where the application demands, automatic compensation for both process and ambient temperature fluctuations can be built in.

For enhanced reliability and stability, all active electronics are remotely sited in a weatherproof enclosure, which, for ease of adjustment, contains all calibration controls.

This electronics module meets current IEC standards for RFI/EMC immunity, and is available certified I.S. for use in hazardous zones.

The sensor cable has a high performance PTFE (TPE) over-sheath for high temperature and aggressive duties.

Specifications

Calibrated spans:	From 0 - 300mm H ₂ O to 0 - 100m H ₂ O
Range adjustment:	3:1 turndown of nominal range
Zero adjustment:	± 10% of calibrated span
Overload:	Minimum of 50 metres or 5 x nominal range
Nominal ranges:	0.5, 1, 2, 4, 8, 16, 32, 50, 100 metres H ₂ O
Signal output:	4 - 20mA DC 2 wire
Power supply:	12 - 35V DC (loop powered)
Maximum load:	1000 ohms at 30V
Sensor body:	316L stainless steel
Diaphragm:	Hastelloy C276
Sensor cable:	Heavy duty TPE sheathed. With integral vent tube
Electronics housing:	GRP IP65 / NEMA 4 (IP67 option) with RFI screen
Sensor operating temperature:	-25°C to +95°C (option: -80 to 150°C)
Electronics operating temperature:	-40 to +55°C
Electronics survival:	-50°C
Accuracy:	Better than ±0.25% FRO
Temp. coefficient:	Less than 0.02% / °C range & zero (0.02% / °C optional)

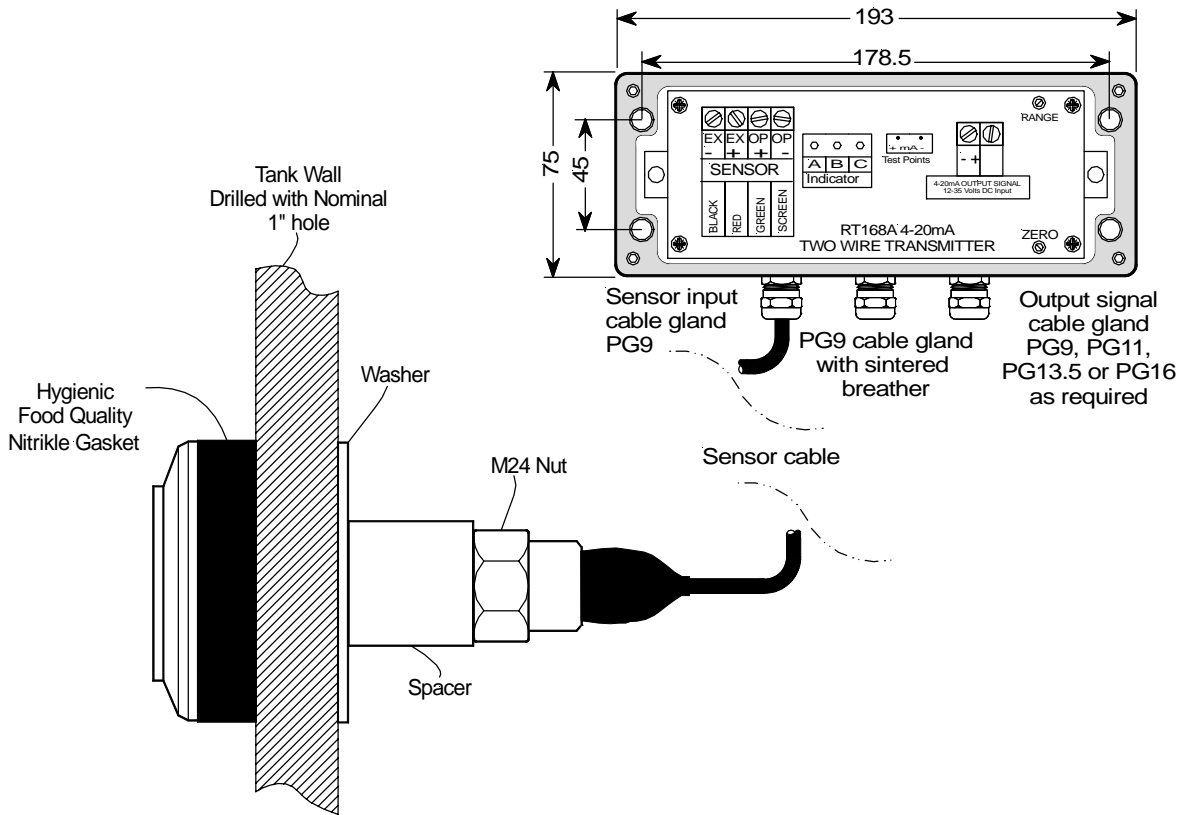


Complimenting the Optima, PSM design and manufacture the iTC Series, a complete range of Single & Multi-Channel Tank monitors & controllers. Completing the picture, TANKVIEW is a PC based Graphical display package offering full screen based display & reporting. Data sheets

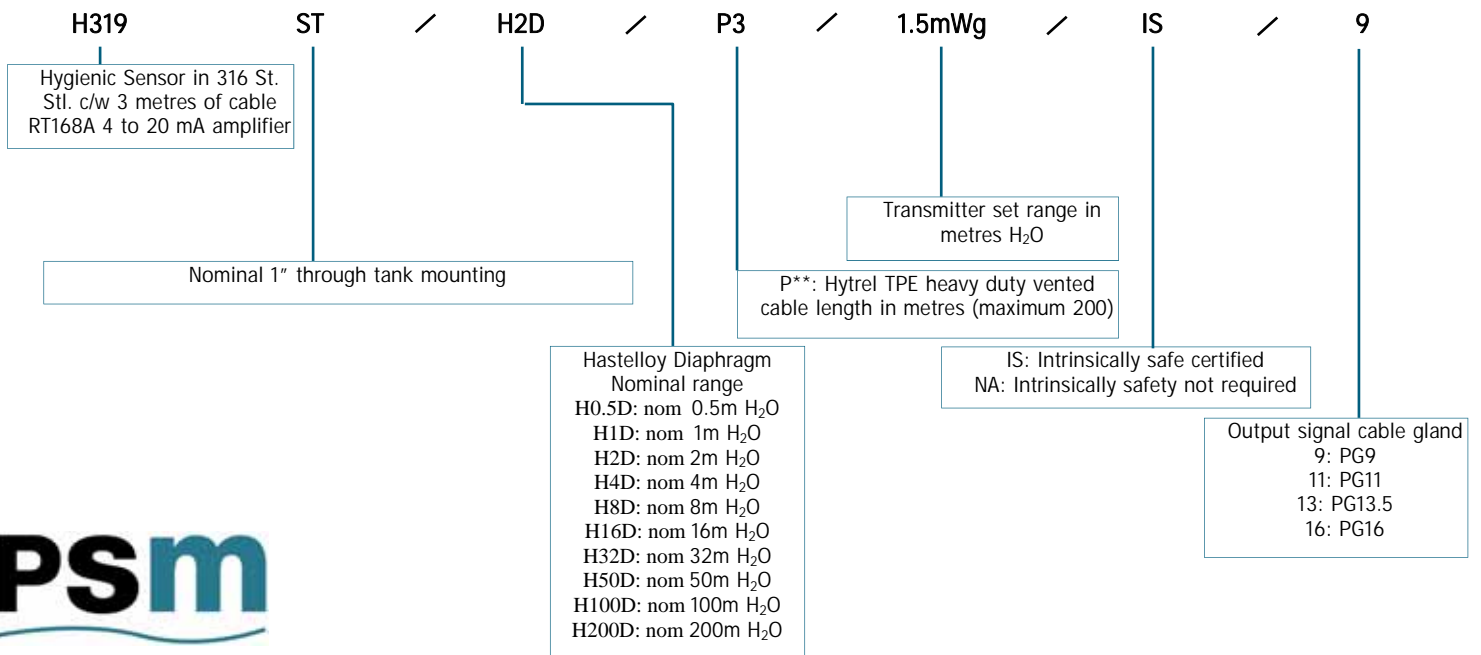


Typical outline drawing

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Model coding



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