

## Tankstar 260 Hydrostatic Level Transmitter for Marine Tank Gauging



### Key features

- Designed and constructed specifically for marine applications with relevant industry body and type application approvals
- Full range of connections and sensor mounting options for side-of-tank or IP68 submersible installation
- Compatible with all common marine liquids and cargo applications: seawater, fuel and lubricating oil, bilge water etc.
- Wide span with a high measurement accuracy, long term stability and exceptional pressure overload resistance
- Remote transmitter provides ease of access for routine calibration checks
- Robust construction gives reliable operation and low maintenance costs

## **Tankstar 260 Series Marine Liquid Level Transmitter**

With many thousands of liquid level transmitters installed on all classes of ships from military vessels to tankers, the design of the Tankstar 260 series marine level transmitter draws on PSM's comprehensive marine application experience. Compliant with IEC and Marine Industry standards, the Tankstar 260's rugged construction provides reliable and accurate monitoring of liquid levels in the harsh environments of shipboard tanks.

The measuring principle of pressure in the Tankstar 260 hydrostatic level transmitter is a diaphragm and L.V.D.T. sensor with power and signal linearisation via a remote mounted transmitter.

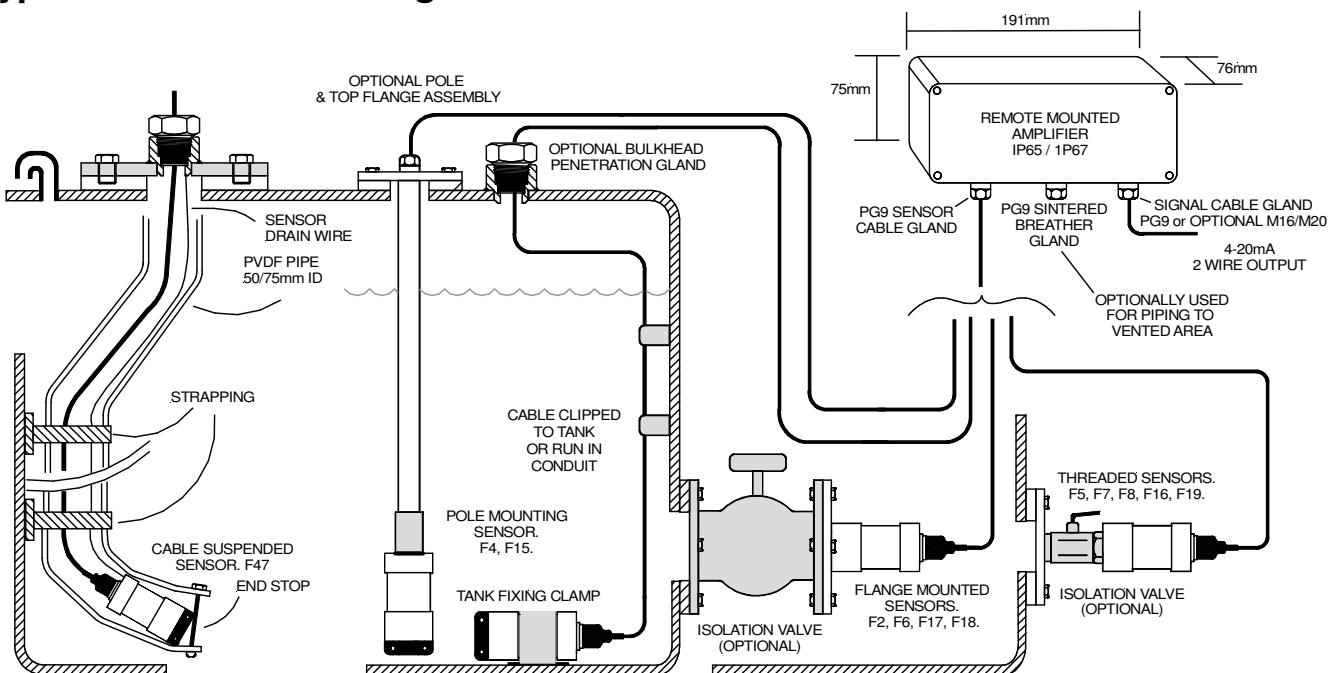
This combines excellent responsiveness and long term stability. The liquid level transmitter has the sensitivity needed to accurately measure shallow tanks but will resist a five times nominal range overload without damage. The all welded level sensor is manufactured from high-grade alloys specifically selected for their stability and corrosion resistance. A wide choice of fittings and the remotely mounted amplifier maximises installation flexibility and serviceability.

The Tankstar 260 sensor is maintenance free and contains no active electronic components. A factory sealed cable is supplied with a heavy-duty outer sheath of cross-linked polymers, suitable for continuous immersion in both sea water, fuels and hydrocarbons. An optional performance cable permits use of the sensor in extreme temperature limits of  $-40^{\circ}\text{C}$  to  $+145^{\circ}\text{C}$ .

## Specifications

|                   |   |                               |  |
|-------------------|---|-------------------------------|--|
| Calibrated spans: | From 0 - 300mm H <sub>2</sub> O to 0 - 50m H <sub>2</sub> O | Diaphragm:                    | Hastelloy C276   |
| Range adjustment: | 3:1 turndown of normal range                                | Sensor Cable:                 | Heavy duty TPE vented                                      |
| Zero adjustment:  | ± 10% of calibrated span                                    | Sensor Operating Temperature: | -40°C to +105°C  |
| Overload:         | Minimum of 50 metres or 5 x nominal range                   | Electronics Housing:          | IP65 GRP (NEMA 4) with internal RFI screen (IP67 optional) |
| Nominal Ranges:   | 1, 2, 4, 8, 16, 32 and 50 metres H <sub>2</sub> O           | Electronics operating temp.:  | -40 to +55°C   |
| Signal Output:    | 4 -20mA DC 2 wire   | Accuracy:                     | Better than ±0.25% FRO                                     |
| Power Supply:     | 12 - 35V DC   | Temp. Coefficient:            | Less than 0.02% per °C shift zero and range                |
| Maximum Load:     | 1000 ohms at 30V  | Sensor Body:                  | 316L stainless steel                                       |

## Typical installation arrangements



**Model code 8 position construction (ex: 260 / F47 / H8 / P / DW 3 / 7.5 / M20 / NA)**

| Position                          | Code  | Description  |
|-----------------------------------|---|--|
| 1: TRANSMITTER                    | 260   | Sensor with RT168 remote transmitter 4 - 20 mA output        |
| 2: PROCESS CONNECTION             | F47   | Basic submersible sensor with drain wire adaptor             |
|                                   | F2  | DN25 PN16 flange mounting                                    |
|                                   | F3  | Tank fixing clamp  |
|                                   | F4  | Pole adaptor fitting threaded 1/2" BSP female                |
|                                   | F5  | Threaded process connection 1/2" BSP male                    |
|                                   | F6  | 1" ANSI 150lb flange mounting to BS1560                      |
|                                   | F7  | 1/2" NPT Male  |
|                                   | F8  | 3/4" BSP Female running nut                                  |
|                                   | F15   | Welded pole assembly   |
|                                   | F16   | 3/4" BSP Female running nut NRV plunger                      |
|                                   | F17   | DN40 PN16 Flange mounting                                    |
| F18                               | DN50 PN16 Flange mounting                   |  |
| F19                               | Fixing clamp & 1/2" BSP female pole adaptor |  |
| 3: TRANSMITTER MAXIMUM PRESSURE   | H1  | 1m H <sub>2</sub> O  |
|                                   | H2  | 2m H <sub>2</sub> O  |
|                                   | H4  | 4m H <sub>2</sub> O  |
|                                   | H8  | 8m H <sub>2</sub> O  |
|                                   | H16   | 16m H <sub>2</sub> O   |
|                                   | H32   | 32m H <sub>2</sub> O   |
|                                   | H50   | 50m H <sub>2</sub> O   |
| 4: CABLE                          | P   | Standard 3m cable length                                     |
| 5: CABLE LENGTH                   | X   | Custom cable length on request (specify length X metres)     |
|                                   | DW X  | Drain wire length in metres (F47 model only)                 |
| 6: RANGE                          | X   | Transmitter 4-20 mA configured range in X m H <sub>2</sub> O |
| 7: REMOTE ELECTRONICS CABLE GLAND | 9   | PG9 Cable Gland for signal cable (Standard)                  |
|                                   | M16   | M16 Cable Gland for signal cable (Optional)                  |
|                                   | M20   | M20 Cable Gland for signal cable (Optional)                  |
| 8: APPROVALS                      | NA  | Safe area installation                                       |