

Sensors Overview

SUBMERSIBLE PRESSURE TRANSMITTERS



General Overview

About Strainsense

Established in 2002 and based in Milton Keynes. We focus on providing Sensor and Data Acquisition solutions in various markets not limited to Automotive/Autosport, Crash, Military, Aerospace and Research facilities.

All of us, Internal Engineers, Product Specialists & External Sales focus our time providing application solutions using various sensing technologies within our extensive portfolio. Uniquely we can provide custom products, solutions and systems.

Accredited ISO9001:2015 & ISO14001:2015

Full compliance Conflict Minerals, Reach, RoHS, Anti-Slavery, Anti-Bribery, Ethics & Standards.

Sensors and Data Acquisition

Pressure	General Industrial, High Temperature, Miniature/Dynamic
Force/Torque	Pancake, S-Beam, Low Profile, Multi-axis, Custom solutions
Position	Linear & Rotary, LVDT, Inclinometers, String Pots
Vibration	AC & DC coupled & Servo Accelerometers
Strain	Specialise in high temperature, gauging In-house, on site
Inertial	Gyros, IMUs, INS & GPS
Current	Zero Flux & Rogowski coils, AC & DC coupled
Data Acquisition	Mobile, Test rigs & analysis software

Solutions to integrate all the above with signal conditioning, displays, cables & amplifiers.



MICROSENSOR

PIEZOCRIST
ADVANCED SENSORIES GmbH



inelta
Sensorsysteme



Sherborne Sensors



Submersible Pressure Transmitters

Piezo Resistive Pressure sensors for liquid level measurement. Markets include Reservoirs, Boreholes, Seawater, Marine, Tank Farms and volume OEM & IOT applications. Typical approvals include Hazardous area, Marine & Mining. All are designed for a simple installation and trouble-free life. All are IP68, CE and RoHS as standard.

Reservoirs, Lakes, Rivers and Open water

High immunity with lightning protection

Analogue 4-20mA or RS-485 / SDI-12 digital protocols

Measurements 1 to 250 metres with accuracy options to 0.05% FS



Boreholes and Groundwater monitoring

Small diameter 19mm or 10mm for 1" boreholes or restricted spaces

Hazardous area approvals for methane applications

Stainless steel, Hastelloy or Titanium body with PE, PUR or FEP vented cable



Marine & Mining

ATEX Exia (Intrinsic safety), ABS, DNV, Lloyds & mining approvals

From 100mBar (1 metre) to 250 mH2O

Stainless steel or titanium bodied, custom solutions



Volume applications, Tank farms, IoT

Ranges 500mm to 200 metres for water, fuels & chemicals

Analogue 4-20mA, Voltage or Digital RS-485/Modbus

Stainless or Titanium bodied with choice of cable materials for chemical resistance



Reservoirs, Lakes, Rivers and Open Water

Lightning strikes kill submersible pressure sensors if they don't have high levels of surge protection, especially in open water. The ATM range includes options for unrivalled surge protection (code 08). All sensors are fully configurable to include process connections, nose cones, cable materials, ranges and accuracies to 0.05% full scale.

ATM.1ST/N (19 or 24mm diameter)

High Performance and precision over the entire compensated temperature range

Precise measurement ranges from 1 to 250 mH2O

Static accuracy options 0.25%, 0.1% or 0.05%.
Hysteresis better than 0.01%

Fast warm up and response

Configurable materials, threads, cables, pressure ranges, pressure reference, filters



PTM/N.SDI-12 & PTM/N.RS485

Digital protocol submersibles with SDI-12 or RS-485 (Modbus RTU) interfaces

Scalable pressure ranges and output signals.
Combined digital and analogue option

Option for combined pressure and temperature measurement

Configurable materials, threads, cables, pressure ranges etc



ATM/N

Has all the features of the ATM.1ST/N however is a lower accuracy version

Lower cost but with most of the features you would ever need



Boreholes & Groundwater

1-inch Boreholes use a 19mm diameter sensor, for smaller 3/4" inch or severely restricted spaces consider the MTM 10mm diameter version. Landfill sites require Hazardous area protection due to presence of Methane. Passive mV outputs available for low power battery applications.

ATM.1ST/N 19

19mm diameter transmitter for 1" boreholes

High Performance and precision over the entire compensated temperature range

Precise measurement ranges from 1 to 250 mH2O

Static accuracy options 0.25%, 0.1% or 0.05%.
Hysteresis better than 0.01%

Fast warm up and response

Configurable materials, threads, cables, pressure ranges, pressure reference, filters



MTM/N 10

10mm diameter transmitter for 3/4" boreholes or restricted spaces

Available in Stainless steel or Titanium (salt and brackish water)

Tech note: Due to the miniature size, the electronics are located in an inline module which is fitted outside of the borehole



ATM/N/EX & ATM.1ST/N/EX

Designed for Hazardous areas for Landfill sites (methane presence)

24mm diameter as standard, contact for smaller diameter needs

ATM.1ST is the premium performance model, ranges from 50mBar and 0.1% accuracy



Marine and Mining Applications

Applications vary for level measurement however, one common requirement is having the right approval. The marine range has global approvals not limited to EAC, ABS, Lloyds and DNV but also Atex and/or IECEx. Specific mining approvals are available on select submersible and standard models.

ATM/N

Standard marine product for general use, high performance, long-term stability

Configurable process connections, outputs, accuracy, materials

Detachable cable option whilst still maintaining IP68 for ease of use



ATM/N/EX & ATM.1st/N EX Marine applications

Primary workhorse for marine, 1ST version is the performance product

ATEX IECEx (Intrinsic safety), ABS, DNV, Lloyds approved

From 100mBar (1 metre) to 250 mH2O

Stainless steel or titanium bodied, custom solutions



PTM/N/EX

Hazardous area programmable submersible pressure sensor

Software provided to allow Zero & Span adjustment, scalable pressure ranges

100mBar to 25 Bar in gauge or absolute, fully configurable

Static accuracy to 0.1% FS, Titanium option, detachable cable option IP68



Volume Applications, Tank Farms & IoT

There are several markets where cost is a driving factor. We provide competitive solutions for volume requirements for remote and battery powered IoT monitoring, water & greywater tanks, fountain control, canal monitoring, chemical/diesel storage. Customs designs can be provided on request, all are CE and RoHS approved.

MPM489W

Low cost, volume solution for water, fuel and chemical storage and battery powered IOT applications

Hazardous area or Low battery powered applications

0-1 metre to 200 mH₂O with vent tube, with configurable material/output options



MPM426

Designed for mobile and heavy-duty applications including Chemical storage, Agricultural & Irrigation, Marine, Wastewater

Digital protocol option RS-485 Modbus, Hazardous area approval, low power option

0-2 metres to 350 bar, gauge, sealed gauge or absolute



MPM4700

High accuracy level transmitter with Marine & hazardous approval

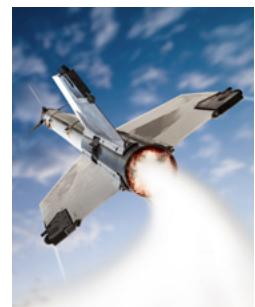
4-20mA output or digital RS-485 (Modbus ASCII or RTU)

0-1 metre to 200 mH₂O with vent tube, Accuracy 0.25%, configurable material options



Thank you.

Contact us today for the latest sensor technology.



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