DETECTRONIC

Detectronic
Multi-Sensor Flow Monitor S2.5

Serial No:
20183859259

MSFM S2.5T

PORTABLE ATEX MULTI-SENSOR
AREA VELOCITY FLOW METER

DESIGNED TO MONITOR RAW SEWAGE, INDUSTRIAL EFFLUENT AND STORM WATERS, THE **MSFM S2.5T** IS A SELF-CONTAINED, BATTERY-POWERED, INSERTION MULTI-SENSOR FLOW METER, SUITABLE FOR APPLICATIONS IN COMBINED SEWERS, OPEN CHANNELS AND STORM SEWERS.

ON-BOARD **FLOW CALCULATION**

Industrial effluent and discharge monitoring, protecting streams and river waters, along with monitoring wastewater treatment processes are just a few of the many reasons for water sampling.

The **MSFM S2.5T** includes **new** processing technology that enables on-board flow calculation. With this, an alarm can be triggered to send a pulse to an automatic water sampler once a predetermined volume of water has passed. This is used for accurate **flow proportional sampling.**

MULTI-PARAMETER MEASUREMENTS

The addition of a temperature sensor is hugely beneficial to users wanting to identify **inflow and infiltration**.

When tidal water or groundwater infiltrates the sewer water, there will be a change in the water temperature as well as a change to the volume of water in the sewer.
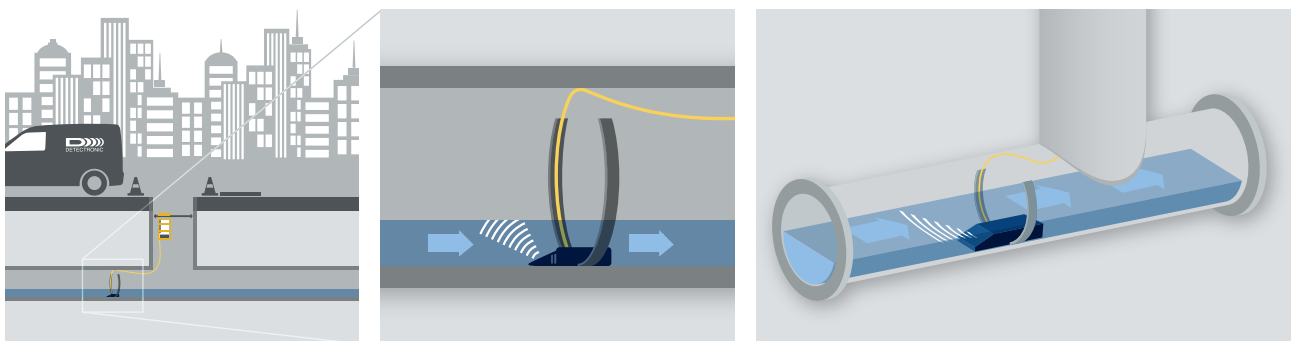
FLEXIBLE COMMUNICATIONS

The **MSFM S2.5T** is compatible with 2G, LTE-M and NB-IoT GPRS networks, making it suitable for use anywhere in the world.

Data can be recorded at user defined intervals between 1 minute and 1 hour. Logged data is transmitted hourly, daily, weekly or monthly via 2G, LTE-M and NB-IoT GPRS at programmed intervals.

MULTI-SENSOR TECHNOLOGY FOR **IMPROVED ACCURACY**

Using the velocity, depth and temperature to determine the flow rate ensures a **more accurate reading** that doesn't require weirs or flumes and **automatically adapts to changes** in production and intense weather that can affect the flow rates.

DATA ANALYSIS

Data is transmitted to a user-friendly, multi-language, secure web portal which users can access anywhere at any time.

DetecData enables you to make smart decisions based on inflow and infiltration rates, flow analysis, event duration monitoring and rainfall analysis.

DetecAnalytics is a predictive analytics tool that helps manage the network by predicting when and where events will happen.

SOPHISTICATED ALARM REGIMES

DetecData allows settings to be modified and profiles created for alarms, thresholds, logging rates and transmission frequency. High/low threshold and profile alarms can be programmed to automatically forward to multiple users by text or email.

LONG BATTERY LIFE

The **MSFM S2.5T** sensors run off a 12V lithium-ion rechargeable battery. Once fully charged, users can expect the battery to last in excess of 15 weeks when using a logging rate of 2 minutes.

The lithium-ion battery is rechargeable and has a typical life expectancy of **5 years.**

DATA SCREENING

Detectronic's dedicated **DATA CENTRE** monitors your network and uses your data to detect blockages **before** they cause flooding and pollution. Using our data screening and reporting services, you can reduce the number of alarms received from thousands to hundreds.

- Real-time data collection and monitoring helps you better understand your sewer network.

- Using human intelligence means you only receive validated intervention reports.

- Site data, national rainfall data and local environmental data can be integrated for every site.

- Designed to be compatible with data from any make of telemetered monitors.

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PRODUCT SPECIFICATION

VELOCITY SENSOR

Type: dual piezoelectric elements.

Range: 0.03m/s to 4.00m/s (resolution 1mm/s).

Linearity: ±1%.

Accuracy: ±2.5% FS
(±1% in calibrated range 0.05m/s - 2.00m/s).

DEPTH SENSOR

Type: hydrostatic pressure.

Range: 0.0m to 3.5m (resolution 1.0mm).

Linearity: 0.1% BSL.

Accuracy: ±0.2% FS
(±0.1% in calibrated range 0.03m - 2.00m).

TEMPERATURE SENSOR

Type: Current Derived Resistance Bridge
Range: 0°C to 50°C.

Accuracy: ±1°C.

OPTIONAL (ULTRASONIC) LIDOTT® LEVEL SENSOR

Type: Piezo-ceramic, temperature-compensated

Range: 0.000 - 1.500m

Accuracy: +/- 2mm

DATA LOGGER

Memory: solid state 512k-max 60k per channel (rotating store or store until full).

Recording interval:
programmable 1 - 60 minutes.

2G/LTE-M/NB-IoT GPRS communication worldwide compatibility.

Data transmission:
2G/LTE-M/NB-IoT GPRS - 15 minutes, hourly, daily, weekly, monthly at programmable intervals.

Logger power supply: 5 years typical life span internal lithium battery pack (user replaceable).

MAIN SENSOR POWER SUPPLY AND OPERATING CAPACITY

Type: 12V ATEX Li-ion rechargeable battery pack.

Battery life: Full Charge = 30+ weeks at 5 minute logging rate.

ENVIRONMENTAL

Operating temperature: -20°C to +60°C.

Protection: IP68/NEMA6P.

Connectors: IP68 Mil - Spec.

Dimensions: 530 x 213 x 150 (maximum), including battery pack and protection frame.

Weight: 8.5kg
(including battery pack, frame, depth and velocity sensors with standard 10m cables).

APPROVALS

Sira 19ATEX2255X

II 1G Ex ia IIB T4 Ga Ta = -40°C to +60°C

IECEx SIR 19.0078X