

Flow measuring system for flow velocity & filling level

Reliable in-line flow measurement in open or closed pipes and ducts

Ultrasonic flow sensor for water, wastewater and industrial waters

The flow measuring system is used for flow measurement in turbid and aggressive liquids and is suitable for applications in Ex and non-Ex areas. The ATEX certified measuring system consists of the flow sensor DSM2420 and the data logger FDL400 or Ex power supply unit SG2420.

The sensor is installed in partially or completely filled pipes and channels and provides reliable measurement results from fill heights as low as 3cm. The flow velocity is detected using an ultrasonic measuring principle (Doppler effect), the fill level is determined hydrostatically.

The measurement signals are evaluated via the compatible data logger or can be integrated into other existing measurement, alarm and control systems. The data logger (FDL400) stores the measured values on an SD card and additionally enables the calculation of the flow rate as well as the monitoring of limit values.



The robust measuring system is suitable for flow measurement for all types of turbid, aggressive and non-aggressive liquids in water and wastewater management, as well as in industrial wastewater networks (beverage production, process water). The measurement is in-line & flexible in standardised and individual pipe and channel geometries.



Continuous in-line flow measurement: Your advantages as a plant operator

- ✓ Optimisation in the planning or operation of your canal network
- ✓ Support for efficient plant operation
- ✓ Sensor-based control of systems and processes in water management
- ✓ Increased environmental protection
- ✓ ideal for self-monitoring of sewage systems
- ✓ Simple installation in existing sewer structures without on-site measures

Sales and Consulting

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Measuring system components

Flow sensor DSM2420



- ✓ Housing made of special plastic; resistant to aggressive media found in (waste) water
- ✓ ATEX-certified with EC type examination certificate
- ✓ Reliable and precise in-line measurement of flow velocity (ultrasonic) and filling level (hydrostatic)
- ✓ Mounting via mounting shoe on the duct floor or individually via clamped duct ring
- ✓ 4...20mA signal output for flow velocity and fill level
- ✓ 15m standard length for cable with integrated pressure compensation line; longer lengths possible
- ✓ Evaluation of the measuring signals via suitable evaluation device

Flow Data Logger FDL400



- ✓ ATEX certified data logger with integrated Ex barrier
- ✓ functions as sensor supply and evaluation unit for DSM2420
- ✓ Compact dimensions; mounting on DIN rail or wall
- ✓ Calculation and display of flow velocity, level, flow rate and quantity
- ✓ 4-line LCD & operating keys for unit configuration
- ✓ SD card: storage of measured values; loading and transfer of unit settings
- ✓ 4 digital signal outputs
- ✓ 3 analogue 4...20mA signal outputs
- ✓ 1 freely configurable measured value output
- ✓ 1 fixed alarm output
- ✓ Configuration and monitoring of limit values

Supply unit SG2420 alternative to FDL400



- ✓ ATEX certified device
- ✓ Intrinsically safe power supply unit for supplying power to the DSM2420 sensor in the Ex area
- ✓ Plastic housing for snap-on mounting on standard rails

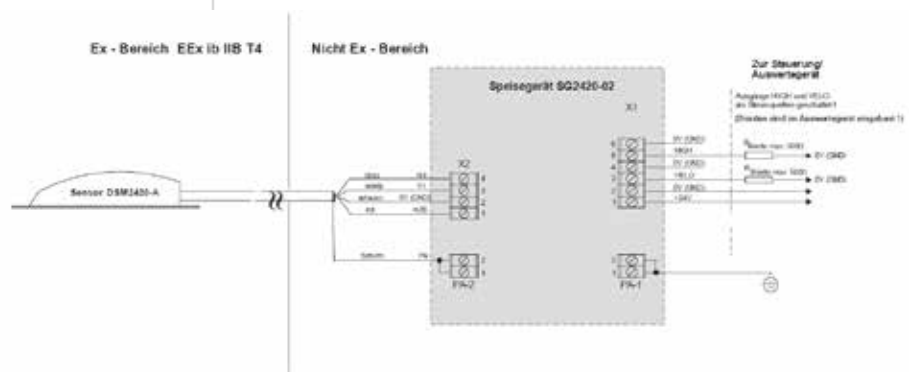
ATEX CERTIFIED



Designed for use in tough environments:

Reliable measurement in explosive atmospheres and in aggressive media.

Exemplary setup of the measuring system with DSM2420 & SG2420



Subject to technical changes Flow_Messsystem_EN_150 2024_ANHU_DE

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