Flow-rate sensors

FW

GUARANTEEING ACCURATE, REPEATABLE RESULTS IN FLOW-RATE MEASUREMENT

Flow can be expressed as volumetric flow rate, mass flow rate or in terms of volume or total displaced mass. The measurement is obtained using two devices: one, primary, which is placed in direct contact with the fluid and which generates a signal and one, secondary, which translates this signal into a movement or a signal to indicate, record, control or calculate the flow. Other devices indicate or calculate the flow directly through the interaction of the fluid flowing in the pipeline and the measuring device which is placed directly or indirectly in contact with the fluid.

In magnetic instruments, the voltage induced by a magnet in a conductive liquid flowing in a pipe is proportional to the velocity of the fluid. This magnetic induction principle is used in the SFW series sensors; they have no moving parts. All flow rate meters without moving mechanical parts can also be used for the measurement of dirty liquids, as long as they are conductive and homogeneous.

The paddle wheel sensors of the SFWE series use a different principle. They have a paddle wheel that rotates according to the flow rate, in whose blades small magnets are inserted. These, passing in front of a Hall sensor, generate a series of pulses whose frequency is proportional to the speed of the liquid which, multiplied by the area of the pipe section, gives the flow rate.

The 4-20 mA output allows the transmission of flow rate information even over a long distance. The specific design allows accurate measurement in a wide range of pipes, from DN15 (0.5 “) up to DN600 (24”). Suitable for **wastewater, sludge treatment, fish farming and biological treatment.**

SFWE

Technical features

Measurement range 0.15 – 8 m/s

Pipe size range DN15 – DN600

Pressure / Operating temp 16 bar at 25°C ;
8.6 bar at 70°C

Enclosure material ABS ; **Degree of protection** IP65 ;
Body material SS 316L / PVDF ; **Seals** FPM ;
Electrode materials SS 316L

Electrical connection Cable not included ;
Mechanical connection Insertion in probe holder

Power supply 5 – 24 Vdc ; **Frequency output** 0 – 500 Hz

Analogue output 4 – 20 mA

Simple and reliable paddle wheel flow sensor designed for use with any type of liquid without suspended solids. The paddle wheel flow sensor has a square wave output via NPN open collector transistor that allows connection to any type of digital input of the instrument.

A specially designed family of fittings guarantees quick and easy installation for all types of pipes, of any material, in sizes from DN15 to DN600 (from 0.5 “to 24”). Suitable for **drinking water, fish farming, cooling water treatment, swimming pools and the textile industry.**

SFW PVC-C

Technical features

Measurement range 0.15 – 8 m/s

Pipe size range DN15 – DN600

Pressure / Operating temp up to 10 bar at 25°C ;
up to 1.5 bar a 80°C

Body material C-PVC ; **Seals** EPDM or FPM ;
Rotor ECTFE (Halar®)

Shaft and bearings Ceramic ;
Electrical connection Cable not included ;
Mechanical connection Insertion in probe holder

Power supply 5 – 24 Vdc ;
Frequency output 45 Hz per m/s (nominal)

SFW PVDF

Technical features

Measurement range 0.15 – 8 m/s

Pipe size range DN15 – DN600

Pressure / Operating temp up to 10 bar at 25°C ;
up to 2.5 bar a 100°C

Body material PVDF ; **Seals** EPDM or FPM ;
Rotor ECTFE (Halar®)

Shaft and bearings Ceramic ;
Electrical connection Cable not included ;
Mechanical connection Insertion in probe holder

Power supply 5 – 24 Vdc ;
Frequency output 45 Hz per m/s (nominal)

SFW SS

Technical features

Measurement range 0.15 – 8 m/s

Pipe size range DN15 – DN600

Pressure / Operating temp up to 25 bar at 120°C

Body material SS 316L ; **Seals** EPDM or FPM ;
Rotor ECTFE (Halar®)

Shaft and bearings Ceramic ;
Electrical connection Cable not included ;
Mechanical connection Insertion in probe holder

Power supply 5 – 24 Vdc ;
Frequency output 45 Hz per m/s (nominal)