

flow x3 flow monitoring

The FlowX3 System includes a complete range of paddle wheel flow sensors, instruments and sensor installation fittings. Also included are insertion type electromagnetic flow transmitters. FlowX3 products provide high quality and state-of-the-art technology. All products are manufactured under ISO 9001:2000 and conform to the highest CE standards.

High Accuracy

± 0.75% of full scale with standard K factor
± 1% of reading value with field calibration

Excellent Low Flow Measurement

Accurately measures flow velocities down to 0.15m/s (0.5ft./sec.)

Large Flow Velocity Range

The frequency output is linearly proportional to flow rate from 0.15 to 8 m/s (0.5 to 25 ft./sec.).
Approximately 45 Hz/m/s.

Easily Installed into all types and sizes of piping

Sensor installation fittings are available in a large selection of types, materials and pipe sizes up to 24"/630mm.

Instruments

New design - More Outputs

Flow X3 instruments are supplied standard with a large offering of control outputs, including 4 to 20mA, open collector (pulse) and relay outputs. All have 3 line LCD displays and LED status indication for the control outputs.

Modular Design - 1/4 DIN Size

Only with Flow X3 can the same instrument be mounted in 3 different ways: directly to the flow sensor, or remotely in a panel or wall mounted.



Direct Mount



Panel Mount



Wall Mount

Sensors

Designed for Corrosive and "Dirty" Services

Flow X3 paddle wheel flow meters are of corrosion resistant solid plastic construction. They are recommended for services with up to 10% solids*. Bearings and sensor body near the rotor are designed to be self-cleaning and small magnets in the rotor blade lessen the chance of fouling due to accumulation of magnetic particules in the process.

Low Cost Blind Transmitters Available

Blind Transmitters are available with module directly mounted to the flow sensor. These are less expensive than the standard direct mount instrument/sensor packages.

Submersible Sensors Available

NEMA 6, 6P (IP68) models are available for outdoor or submersible installations.

*Particle size not exceeding 0.5mm cross section or length

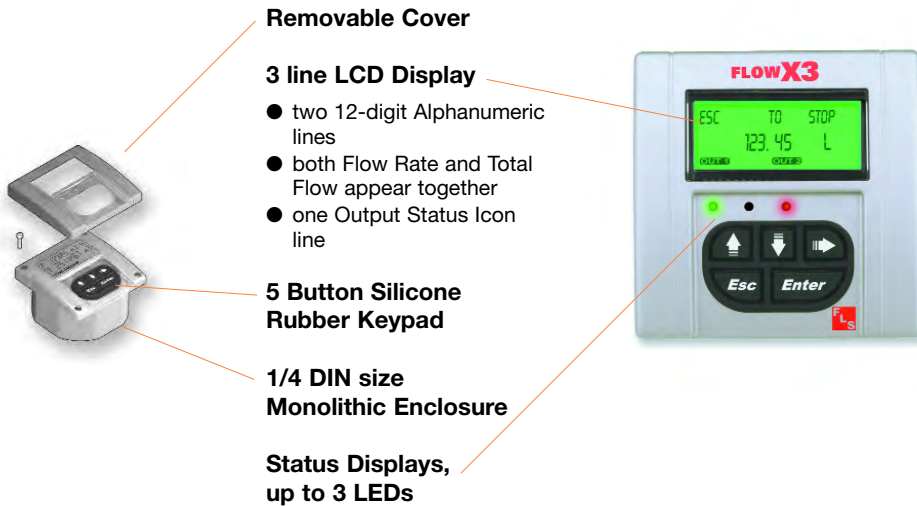


Designed for Heavy Duty Industrial Applications

Instruments have a NEMA 4, 4X monolithic clear polycarbonate enclosure in 1/4 DIN size, epoxy encapsulated electronics and a 5 button silicone rubber keypad.

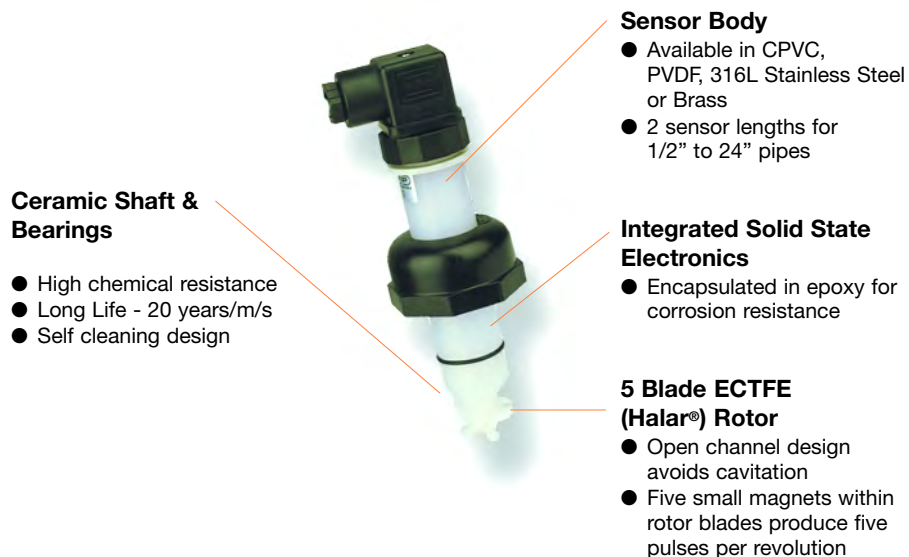
Easy Set-up

Setting up the instrument is easy using the keypad and self-explanatory menus. Plug-in terminals make instrument connection and removal easy. Auto calibration provides automatic calculation of K factors.



Long Service Life

Flow X3 have a *ceramic rotor shaft and bearings*. On aggressive chemicals and services containing grit, FlowX3 sensors have outlasted other types with metal shafts and no bearings.



type F3.00 and F3.01 flow sensors

The Type F3.00/F3.01 Paddle Wheel Flow Sensors are designed for use with solid-free liquids. A square wave output signal is generated with frequency proportional to rate of rotor rotation and flow velocity. This pulse output is normally fed to a FlowX3 flow monitor/transmitter, blind transmitter, batch controller or adjustable flow switch. For simple flow indication the output can be fed directly to a computer.

Two types of sensors are available, Hall Effect which requires a 5 to 24 VDC power supply and Coil Effect which operates with less power, 3 to 5 VDC. Coil is required with the battery powered flow monitor. Hall Effect signals may be transmitted up to 300m without the need for conditioning whereas Coil Effect signals may be transmitted up to 16m without conditioning.



Main Features

- CPVC, PVDF, Stainless Steel or Brass sensor body
- Easy insertion system
- Different versions for remote and compact installations
- Measurement range over 50:1
- High chemical resistance
- Battery powered version
- 4-20 mA output
- MIN alarm relay output

Applications

- Water treatment and regeneration
- Industrial wastewater treatment and recovery
- Textile finishing
- Water distribution
- Processing and manufacturing industry
- Filtration systems
- Chemical production
- Liquid delivery systems
- Cooling water monitoring
- Heat Exchangers
- Swimming pools
- Pump protection

Engineering Data

- The flow sensor is available with Hall effect transducer (standard) and Coil effect transducer (battery operated)
- The Hall sensor operates with a power supply from 5 to 24 VDC @ <30 mA
- The Coil sensor operates with a power supply from 3 to 5 VDC @ <10 μ A
- The standard output is a square wave with a frequency of 45 Hz per m/s (13.7 Hz per ft/s) nominal
- The output signal is provided directly via electric cable or via a cable plug according to DIN 43650-B/ISO 6952. Supplied cable is standard 8m (26.4 ft) long, with a maximum length of 300 m (990 ft) for Hall sensor and 16 m (52.8 ft) for Coil sensor
- In the versions with 4-20 mA or MIN alarm output, an additional IP65 housing is plugged onto the sensor. Output signals are available on a terminal strip inside via a PG11 cable gland.
- The sensor F3.30 with 4-20 mA output and the sensor F3.15 with MIN alarm output require a power supply from 12 to 24 VDC.
- The nominal measuring range is from 0.15 to 8 m/s (0.5 to 25 ft/s).

type F9.00, F9.01 and F9.02 flow monitors/transmitters

Type F9.00, F9.01 and F9.02 Flow Monitors/Transmitters are designed to process the pulse signals from all FlowX3 Hall Effect flow sensors. The instruments supply voltage to the flow sensor. All units are supplied standard with a large offering of control outputs, including 4 to 20mA, open collector (pulse) and relay outputs. All have 3 line LCD displays and LED status indication for the control outputs. Modular design allows the same instrument to be mounted in three different ways: directly to the flow sensor or remotely either panel or wall mount.

Self explaining calibration menus allow a customized set up of all measuring parameters and the state of the art electronic design ensures long-term reliable and stable signals.



Main Features

- Permanent and resettable totalizer
- Adjustable outputs
- Relay and Open Collector options
- Installation flexibility
- 3 line alphanumeric LCD
- IP65 monolithic packaging
- 5 button keypad
- Output simulation for system testing
- One packaging for compact/pipe, panel or wall installation
- Self explaining calibration menus
- Auto-calibration

Engineering Data

- The flow transmitter is designed with only one packaging for compact/pipe, panel or wall installation
- The flow transmitter has 1/4 DIN panel mount standard dimensions: 96 x 96 mm (3.8 x 3.8 inch)
- The instrument meets IP65 standards
- The instrument provides flow rate indication and dual totalization with fully scaleable engineering units
- The flow transmitter is equipped with a 3 line LCD: 2 x 12 alphanumeric lines and 1 icon line
- The flow transmitter is equipped with a silicone rubber 5 button keypad
- The flow transmitter is compatible with all FLS FlowX3 Hall Effect Flow Sensor
- The instrument provides auto-calibration and simulation options

Applications

- Flow control and measuring
- Water treatment and regeneration
- Industrial wastewater treatment and recovery
- Water distribution
- Leak detection
- Processing and manufacturing industry
- Textile finishing
- Finishing systems
- Chemical Industry
- Liquid delivery systems
- Auxiliary plants
- Swimming pools and spas

Displays

Flow Rate	- 5 digits
Resettable Total	- 6 digits
Non-Resettable Total	- 10 digits

Need advice?

Our expert team are here to help.
Call our freephone:

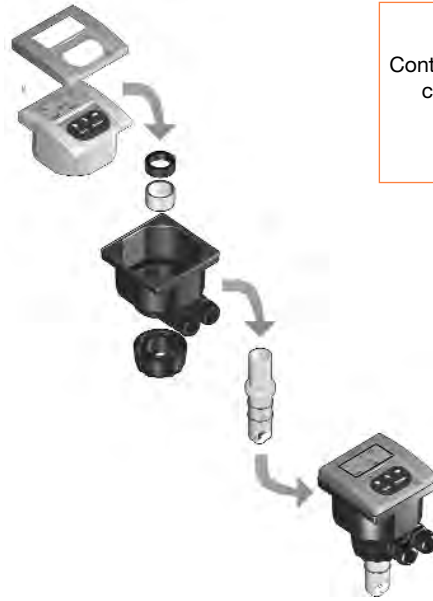
0800 975 79 71

Or from outside of the UK:
+44 191 521 3111



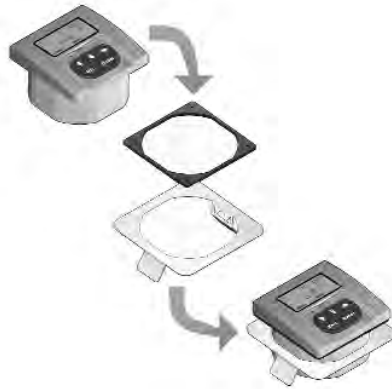
instrument mounting kits

Compact Mounting



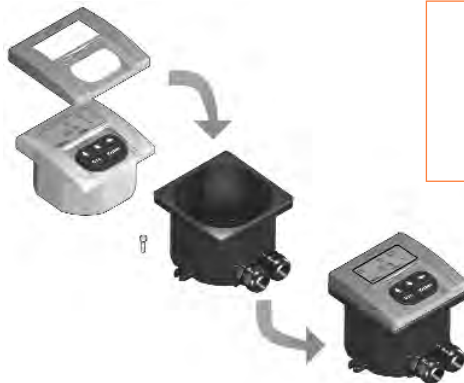
Code: F9.KC1
Contains plastic adaptor with gasket,
compact cap, locking ring and
4 fixing screws

Panel Mounting



Code: F9.KP1
Contains mounting bracket
with gasket

Wall Mounting



Code: F9.KW1
Contains plastic adaptor with
gasket and fixing screws

Tee Fittings



For connection to PVCU, PVCC, PP and PVDF. Available in sizes up to 50mm/1½"

Clamp Saddle Fittings



Suitable for use with both metric and inch size pipe from 63mm/2" - 315mm/12"

Metal Strap-On Saddles



Primarily for use with metal pipes, but can be used with thermoplastic pipe also. Available in sizes from 90mm/3" - 450mm/18"

Wafer Fittings



For mounting between flanges in pipe of all materials. Sizes from 250mm/10" - 315mm/12"

Stainless Steel Tee Fittings



For connection to stainless steel piping only. In sizes ¾", 1" & 1¼"