

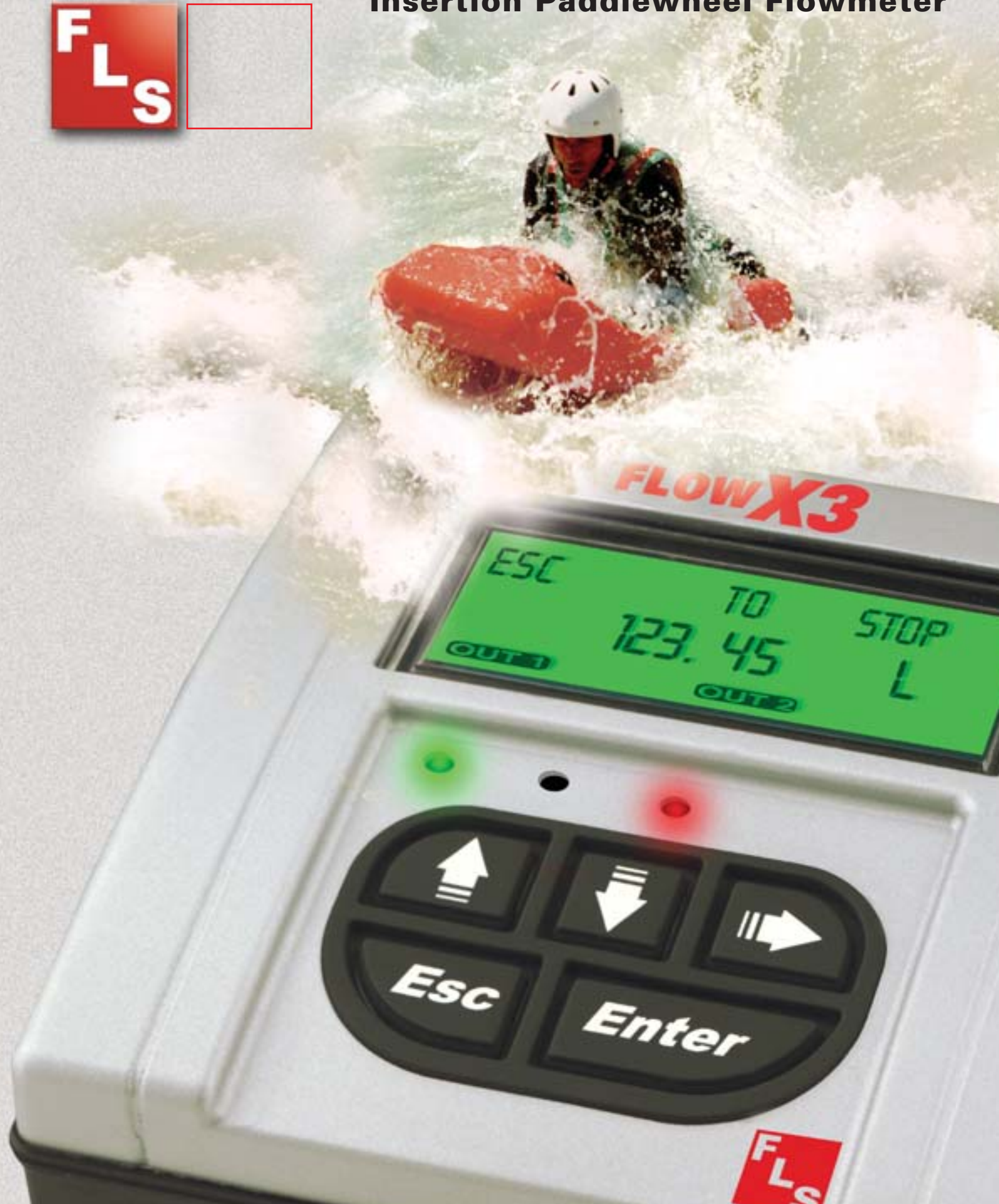


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FLOWX3

Insertion Paddlewheel Flowmeter



Technology and simplicity run together

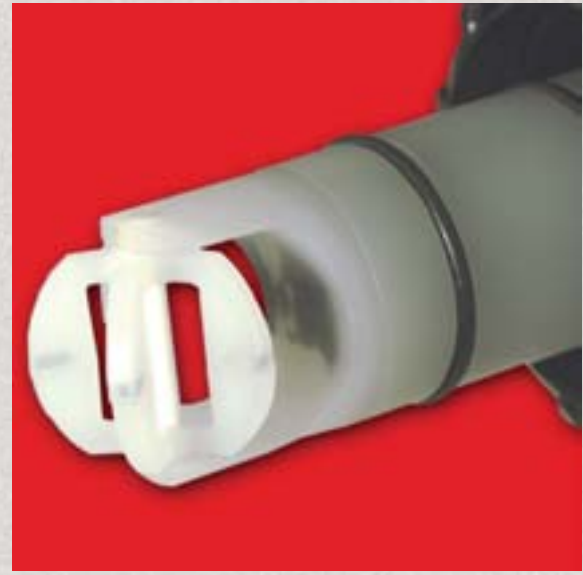
The strong technical background developed in several years of applied experience in flow processing, the passion and the job of an expert team to supply customized solutions, are leading FLS to be one of the most qualified partners in insertion technology flow measurement.

FLS is proud to introduce the all-new line of quality flow sensors, monitors and transmitters.

FlowX3 products ensure reliability and simplicity to operate providing various solutions for almost every kind of fluid process requirements.

They provide fast solutions for system design increasing efficiency and keeping low costs of replacement and maintenance reducing the Total Cost of Ownership.

The standard E-CTFE (Halar®) five blade rotor combined with ceramic shaft and bearings guarantee excellent performances and high chemical resistance.



Quality

FLS is aligned with today's global market more and more sensitive to quality standards. FlowX3 sensors, monitors and transmitters, as well as the complete line of fittings, are characterized by FLS quality covering all steps from product development to accurate manufacturing and testing processes. FlowX3 range is an excellent mix of quality, state of the art technology, simple calibration and installation to make the job easier.

Quality is the first step to win the challenge of providing products in the global market: all products are manufactured under ISO 9002 and matching the most restrictive CE standards.

Service & Support

FLS staff is well experienced and always ready to give technical advice and suggestions for any specific application. Technical assistance and customer service department are qualified to support in product selection and system design.

The very well organized FLS team activity can offer:

- high quality products
- guaranteed performances
- expert technical assistance
- constant after-sales support
- individual customer training

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FLOWX3

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FLOWX3

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FLOWX3

FlowX3 Monitor and Transmitter put together a complete choice of input/output options with unparalleled set-up simplicity due to self explaining calibration menus.



X3 Philosophy: Only one IP65 packaging with different Kits for compact pipe mount, panel or wall installation.



New concept 5 button silicon rubber keypad.

FlowX3 Monitors are all equipped with a 3 line alphanumeric LCD.



Innovation & Simplicity

FLS invests many efforts in its R&D department to find new solutions for fluid measurement and control. FlowX3 instruments are developed and produced with the latest technology ensuring high, reliable and long term performances.

At the same time FLS mission is to keep them

- simple to order
- simple to stock
- simple to install
- simple to operate
- simple to test
- simple to maintain

Simplicity is not a limit.

Application versatility

The FLS FlowX3 family offers a complete range of flow sensors ready to be interfaced with monitors, indicators and transmitters. Different sensor materials and fittings in PVC, CPVC, PP, PVDF, PE and Metal make installation simple and possible in thousands of applications with almost any kind of liquids. FlowX3 instrumentation provides high flexibility with only one packaging for compact pipe mount, panel or wall installation and complete choice of options granted by single or dual input/output, one open collector output and two optional open collector or relay outputs.

Flow X3 Global Range —

Flow X3 F3.00 Flow Sensor

The simple and reliable paddlewheel flow sensor type F3.00 is designed for use with every kind of solid-free liquids. The sensor can measure flow from 0.15 m/s (0.5 ft/s) producing a frequency output signal highly repeatable. A rugged construction and a proven technology guarantee exceptional performances with little or no maintenance required. A specially designed family of fittings ensures an easy and quick installation into all pipe materials in sizes from DN15 to DN600 (0.5 to 24 in.).



Main features

- CPVC, PVDF or Stainless Steel 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

Flow X3 F111 Flow Sensor for Hot Tap Installation

The stainless steel paddlewheel flow sensor type F111 offers high strength and mechanical resistance applied to insertion technology. The sensor can be assembled in pressurized pipes using a proper clamp saddle and it allows, by a simple procedure, to directly measure the internal diameter during the installation, enabling to precisely position the sensor into the pipe and get the max accuracy. It can measure flow from 0.15 m/s (0.5 ft/s) and is suitable for remote totalization when coupled with F9.20 Battery operated Flow Instrument.



Main features

- Adjustable sensor position
- Stainless steel Construction
- Hot-tap installation
- Pressure Intake
- Standard 2" BSP process connection
- Battery powered version
- Compatible with most Data Loggers

Flow X3 F3110M/F3111M Electromagnetic Flow Sensor

The FLS FlowX3 F3110M and F3111M electromagnetic flowmeters are suitable for use in pressurized pipelines of both metal and thermoplastic. They can measure liquids where suspended solids are present or abrasive liquids as long as they are conductive and homogeneous. A specially designed family of fittings ensures a quick installation into all pipes from DN50 (2.00 inch). The 3111M version can be assembled in pressurized pipes using a proper weld-on adapter and insulation valve or a proper clamp saddle.



Main features

- Robust construction
- Suitable for liquids at high temperature
- High operating pressures
- No moving parts, no wear, maintenance-free
- Pipe size from DN 50 (2.00 inch)
- Electronic replaceable without removing the instrument
- Low power consumption
- Hot-Tap installation



Flow X3 ULF Ultra Low Flow Sensor

The compact ultra-low flow sensor type ULF is designed for use with every kind of aggressive and solid-free liquids. The sensor can be fixed to flexible or rigid pipe via G ¼" threaded process connections. The paddlewheel sensor produces a frequency output proportional to the flow velocity that can be easily transmitted and processed. The ULF sensor offers two different flow ranges starting from 8 or 16 l/h (0.032 or 0.064 gpm). The construction materials, PVDF or ECTFE (Halar®), provide high strength and chemical resistance.



Main features

- PVDF or ECTFE (Halar®) wetted parts
- Two flow ranges available:
 - 8 to 150 l/h (0.032 to 0.6 gpm)
 - 16 to 600 l/h (0.064 to 2.4 gpm)
- High chemical resistance
- Easy mounting
- 4-20 mA output
- MIN alarm relay output

Flow X3 F3.05 Paddlewheel Flow Switch

The simple insertion paddlewheel flow switch type F3.05 is designed to protect a pump from running dry or pumping against a closed valve. It is equipped with a mechanical SPDT contact activated when the flow velocity drops below the factory preset value of 0.15 m/s (0.5 ft/s). A specially designed family of fitting ensures an easy and quick installation into all pipe materials in sizes from DN15 to DN600 (0.5 to 24 in.).



Main features

- CPVC, PVDF or Stainless Steel sensor body
- High chemical resistance
- No-Flow alarm relay output
- Highly visible Local Bicolour Status Indicator
- Maintenance free
- Very low pressure drop

Flow X3 F9.00 Flow Monitor & Transmitter

The FLS FlowX3 F9.00 Flow Monitors and Transmitters are designed to convert the signal from all FlowX3 flow sensors into a display indication and a 4-20 mA signal for long distance transmission. A very simple and complete choice of options are granted by single or dual input/output, one open collector output and two optional open collector or relay outputs. The high flexibility is also maximized with only one packaging for compact pipe mount, panel or wall installation. Self explaining calibration menus allow a customized setup 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

Flow X3 F9.20 Battery Powered Flow Monitor

The FLS FlowX3 F9.20 Battery Powered Flow Monitor is equipped with a long life lithium battery and it integrates the power supply for the sensor. It is designed to show on the LCD display flow rate and totalized flow volume with no external power supply required. One of the two totalizers is resettable while the other is non-resettable and it is used to permanently record volume consumption. Self explaining calibration menus allow a customized setup of all measuring parameters and the state of the art electronic design ensures long-term reliable and stable indications. The high flexibility is maximized with only one packaging for compact pipe mount, panel or wall installation.



Main features

- Battery Operated
- Long-lasting 3.6 Volt lithium battery included
- 3 line alphanumeric LCD
- IP65 monolithic packaging
- 5 button keypad
- No information lost during battery replacement
- One packaging for compact/pipe, panel or wall installation
- Self explaining calibration menus
- Two totalizers: 10-digit permanent and 6-digit resettable

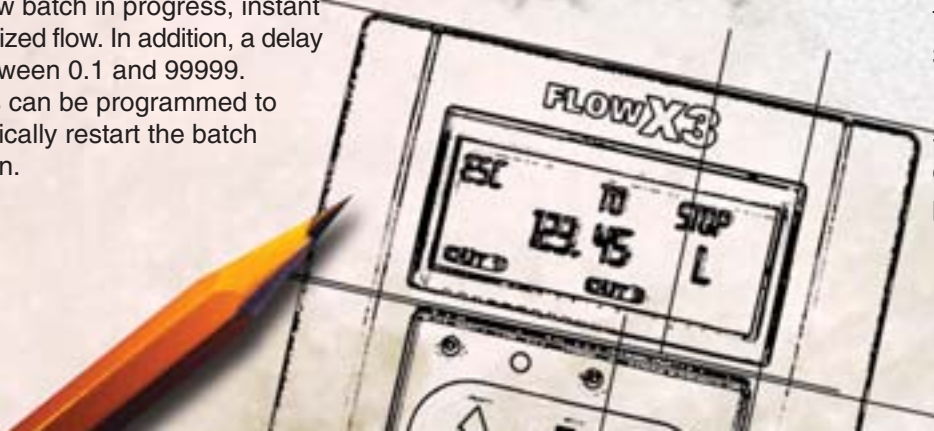
Flow X3 F9.50 Batch Controller

The FLS FlowX3 F9.50 Batch Controller is designed for accurate and reliable batching or blending of a variety of liquids. The instrument combines complex control capability with easy calibration and operation. A Simple and Advanced mode are available to customize the unit to the specific batch requirements providing simple and quick changes of batch volumes and settings. Two relays, an open collector and an analog output ensure accurate batch operation reducing the possibility of water hammer into the system. The high flexibility is maximized with only one packaging for compact pipe mount, panel or wall installation. Self explaining calibration menus and 5-button keypad allow a user friendly setup of all the batch parameters while the high visible LCD display can show batch in progress, instant and totalized flow. In addition, a delay time between 0.1 and 99999.9 seconds can be programmed to automatically restart the batch operation.



Main features

- Easy Batch Volume setting
- Simple and Advanced operating modes
- External Start, Stop and Resume
- Self explaining calibration menus
- Auto-calibration
- Two Stage Shutdown Control
- Automatic or Manual Overrun Compensation
- Overrun Alarm
- Missing Signal Alarm
- Advanced Valve Control
- End-of-Batch Pulse Output
- Output simulation for system testing
- Count-up or Count-down batch indication
- Permanent and Resettable totalizer
- 3 line alphanumeric LCD
- IP65 monolithic packaging
- 5 button keypad
- One packaging for compact/pipe, panel or wall installation



Installation Fittings



Type

Description

Plastic Tees

- Size: D20 to D50 (0.5 to 1.5")
- Materials: PVC, CPVC, PP, PVDF

CPVC Clamp Saddles

- Size: D63 to D225 (2 to 8")
- Insert Materials: CPVC, PVDF

PP Clamp Saddles

- Size: D250 to D315 (10 to 12")
- Insert Material: CPVC

PVC Wafer Fittings

- Size: D280 and D315 (10 and 12")
- Insert Material: CPVC

GR-PP Wafer Fittings

- Size: D280 and D315 (10 and 12")
- Insert Material: CPVC

Plastic Weld-on Adapters

- Size: D63 to D315
- Materials: PVC, CPVC, PP, PE

316 SS Tees

- Size: D25 to D40
- BSP Female Threaded

Metal Strap-on Saddles

- Size: DN60 to DN450
- Special order for bigger sizes
- Insert Material: CPVC

Metal Strap-on Saddles for Wet Tap Installation

- Size: DN80 to DN450
- Special order for bigger sizes

316 SS Weld-on Adapters

- Size: D50 to D600 (1.5 to 24")

Main applications

Water treatment and regeneration ■ Industrial wastewater treatment and recovery ■ Feed water ■ Textile finishing ■ Water distribution ■ Processing and manufacturing industry ■ Filtration systems ■ Chemical production ■ Liquid delivery systems ■ Cooling water monitoring ■ Heat Exchangers ■ Pump protection ■ Leak detection ■ Auxiliary plants ■ Swimming pools & Spas ■ Feed pump pulsing.