



# FlowX3 F9.20 Battery Powered Flow Monitor

9.20



FLS FlowX3 F9.20 Battery Powered Flow Monitor is equipped with two long life lithium batteries and 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.

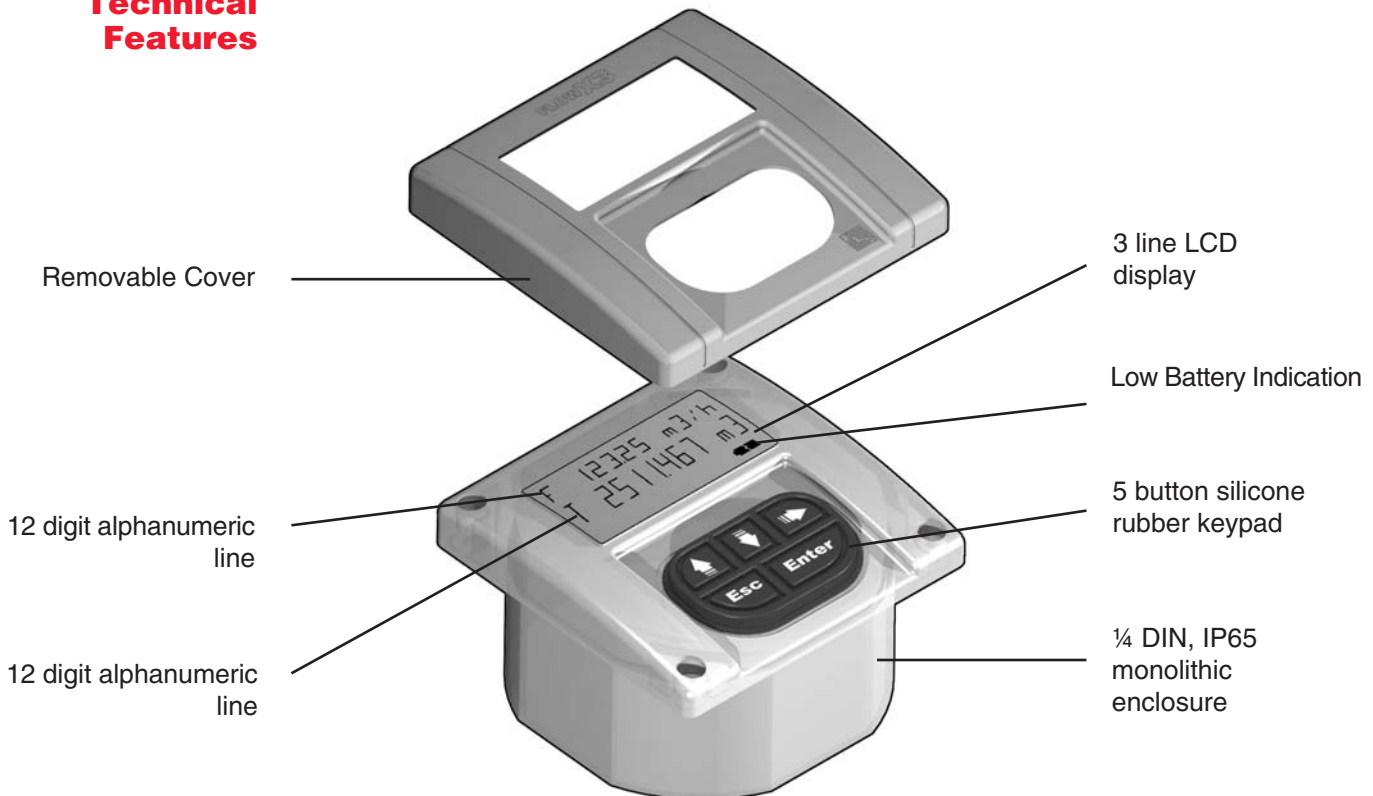
## Main Features

- Battery Operated.
- Long-lasting 3.6 Volt lithium batteries 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.
- 5 digit flow rate indication.

## Applications

- Water treatment and regeneration systems.
- Mobile wastewater treatment and recovery.
- Water distribution.
- Leak detection.
- Irrigation.
- Groundwater remediation.
- Filtration systems.
- Liquid delivery systems.
- Swimming pools & Spas.

## Technical Features



## Engineering Data

- The flow monitor is designed with only one packaging for compact/pipe, panel or wall installation.
- The flow monitor has ¼ 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 monitor is equipped with a 3 line LCD: 2 x 12 alphanumeric lines and 1 icon line.
- The LCD display provides a 5 digit flow rate indication, a 6 digit resettable totalizer indication and a 10 digit permanent totalizer indication.
- The flow monitor is equipped with a silicone rubber 5 button keypad.
- The instrument is compatible with all FLS FlowX3 Coil and Reed sensors.
- The flow monitor is equipped with internal 3.6 Volt, 2.8 Amp/hour, lithium batteries with a nominal life expectation of 5 years.
- The instrument provides a low battery indication and a system to retain all calibration settings during battery replacement.

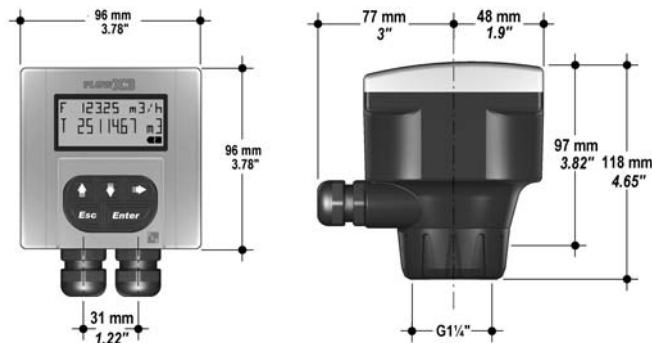
## Connections to FlowX3 Sensors

Flow X3 Monitors	Flow X3 Sensors											
	F3.00.H	F3.00.C	F3.01.H	F3.01.C	F3.15.H*	F3.30.H*	ULF.H	ULF.R	ULF3.15*	ULF3.30*	F111.H	F111.C
<b>F9.20</b>		■		■				■				■

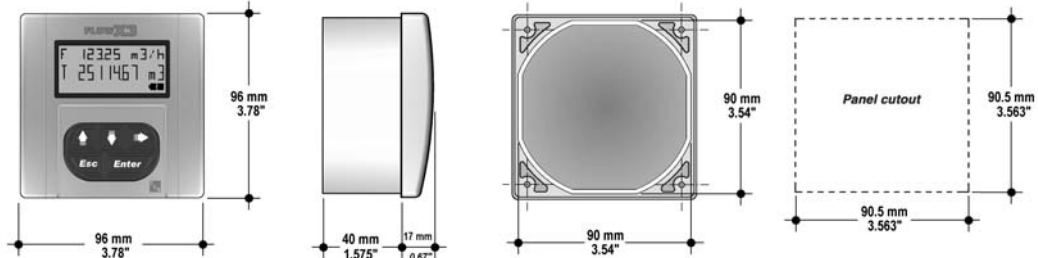
\* with Output Kit mounted.

## Dimensions

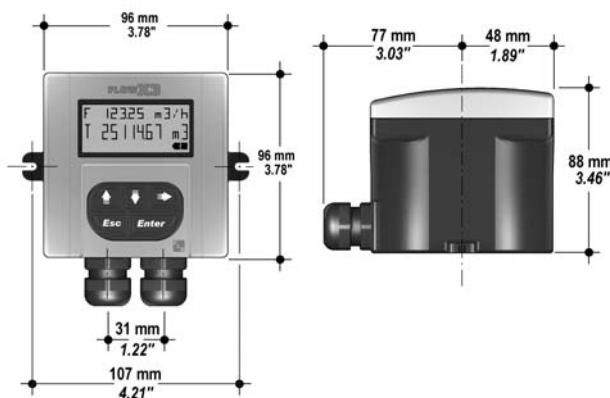
### Compact Mount



### Panel Mount



### Wall Mount

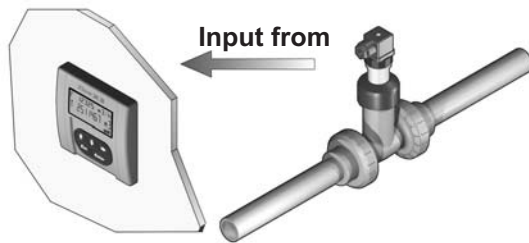


## Installation

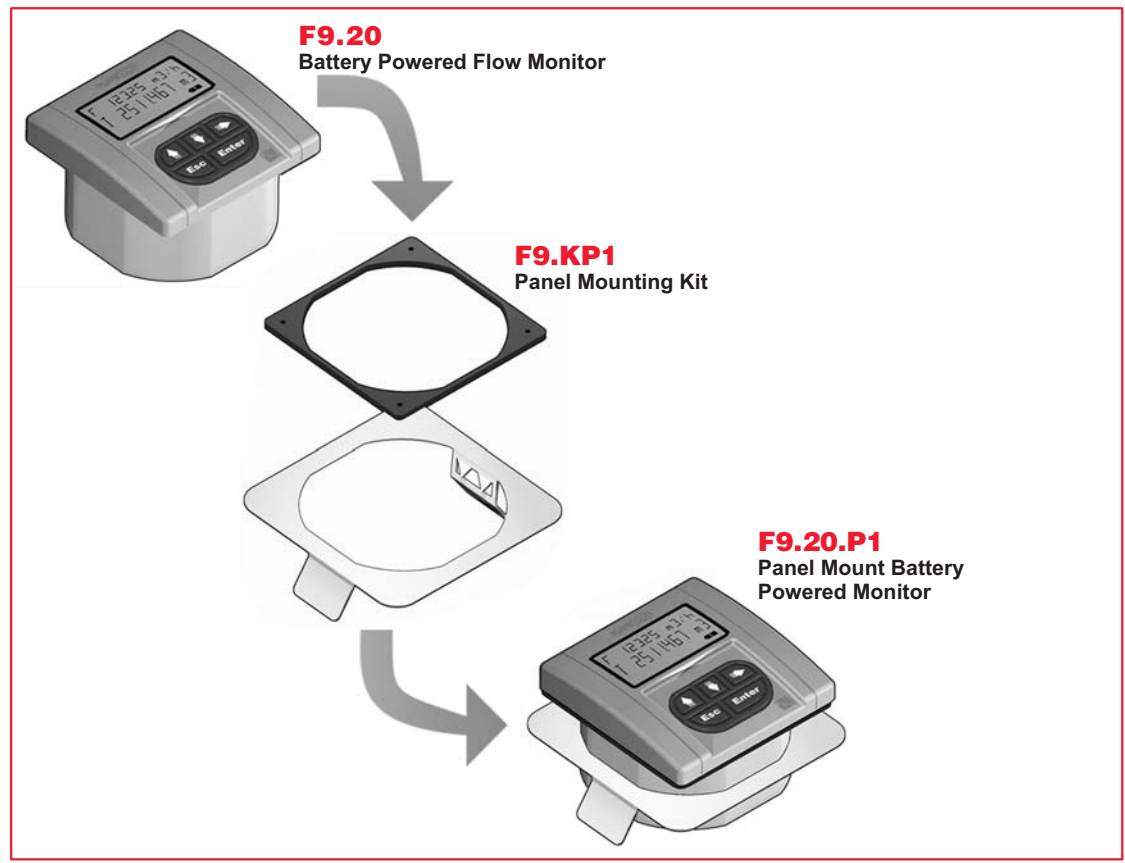
The flow monitor is available just in one packaging for compact field version, panel or wall installation. The compact field version is mounted on top of the sensor using the compact mounting kit (F9.KC1), the panel version is installed using the panel mounting kit (F9.KP1), while the wall mounting version is fixed to the wall by the mounting kit (F9.KW1).

The mounting kits can be ordered directly connected to the monitor or separately and then simply installed on it. Please refer to Ordering Data section for a complete listing of part numbers.

### Panel Mount



The panel mounting version consists of the monitor and the mounting bracket kit F9.KP1 with gasket for IP65 watertight panel installation. The monitor perfectly fits into a standard 1/4 DIN panel cutout. The instrument and the kit can be ordered separately (code F9.20 for the monitor and code F9.KP1 for the mounting bracket) or together using the code F9.20.P1.



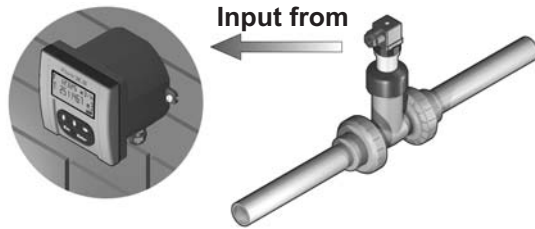
**Input from**



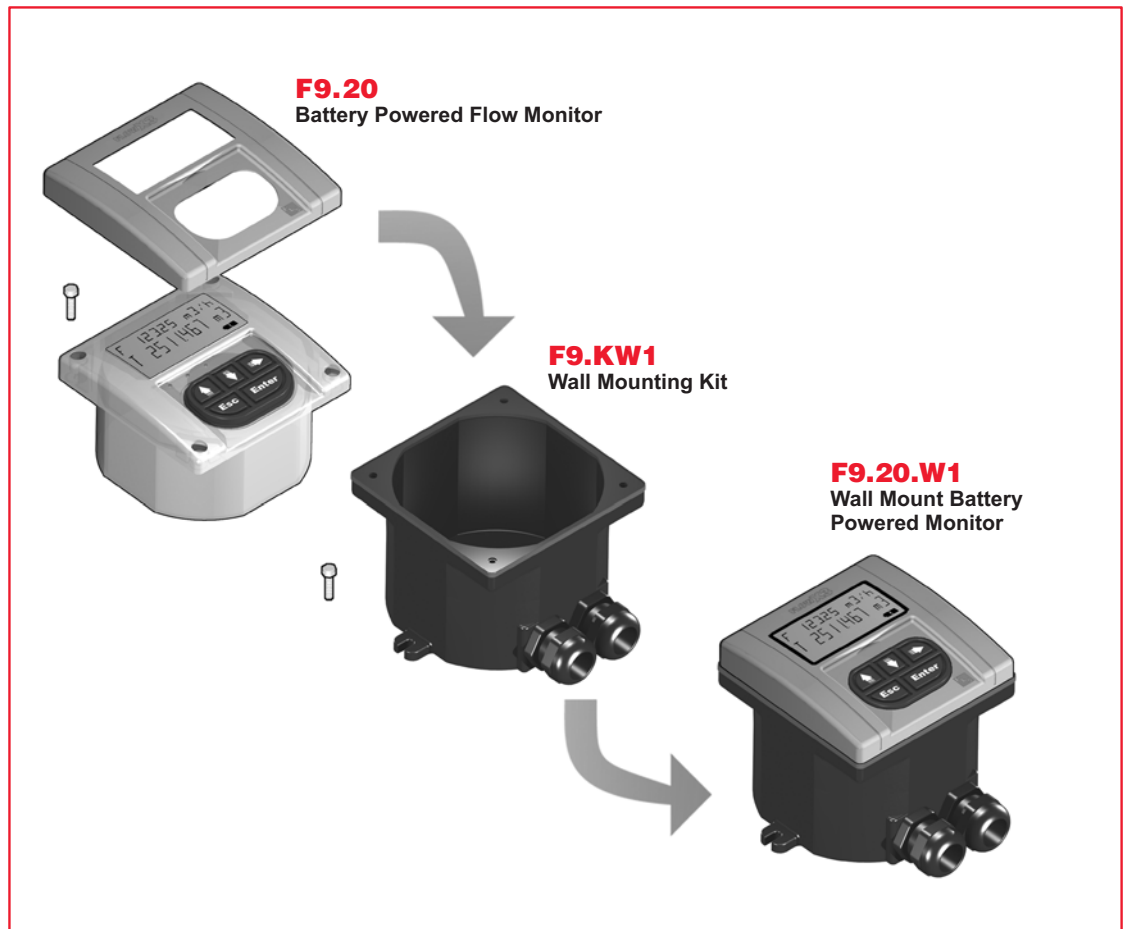
**FLS FlowX3 Flow Sensor  
(sold separately)**

F3.00.C.XX  
ULF01.R.X  
ULF03.R.X  
F111.C

## Installation Wall Mount



The wall mounting version consists of the monitor and the wall mounting kit. The F9.KW1 kit includes the plastic adapter, the gasket for IP65 watertight wall installation and the fixing screws. The instrument and the kit can be ordered separately (code F9.20 for the monitor and code F9.KW1 for the kit) or together using the code F9.20.W1.



**Input from**



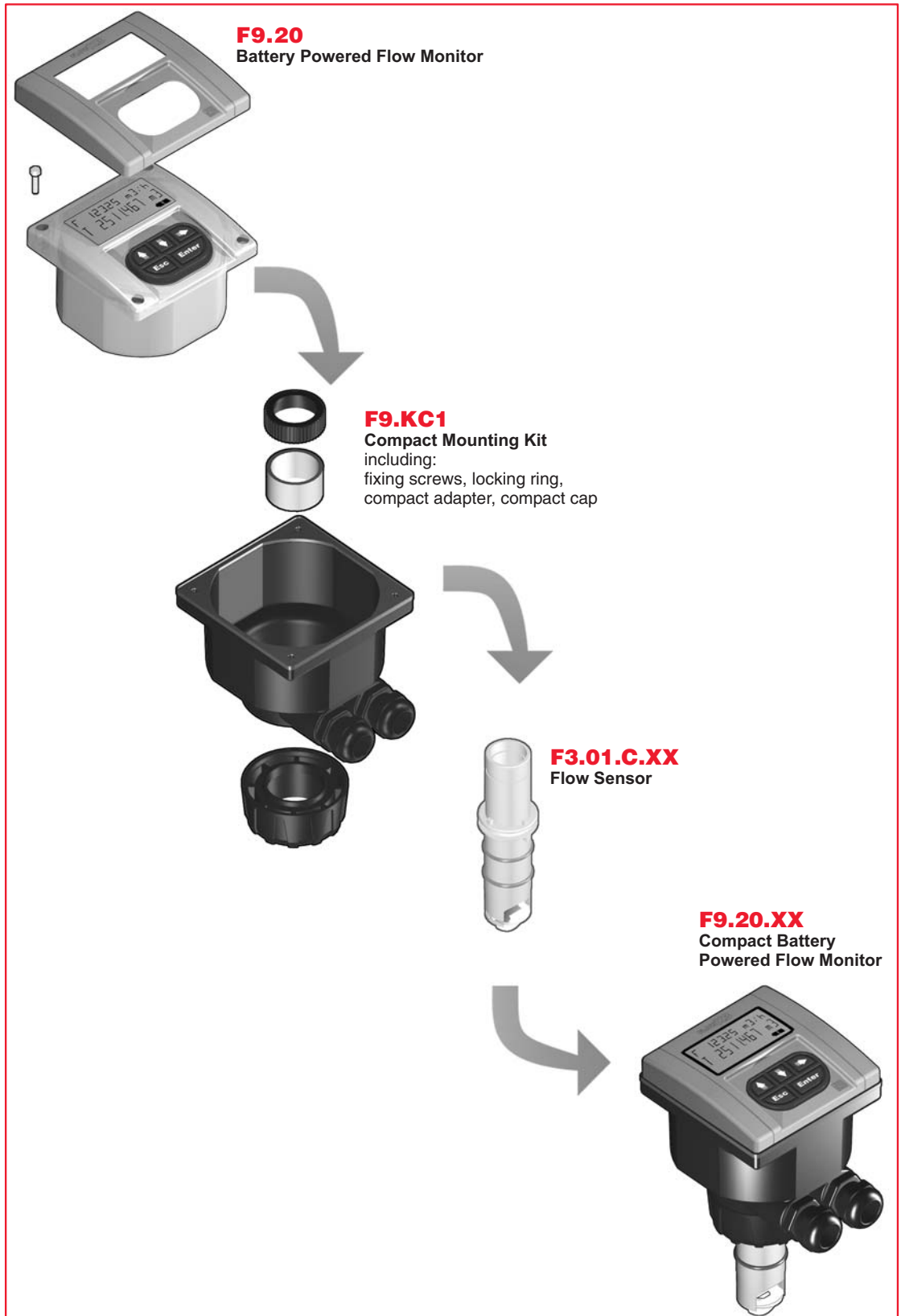
**FLS FlowX3 Flow Sensor  
(sold separately)**

F3.00.C.XX  
ULF01.R.X  
ULF03.R.X  
F111.C

## Installation Compact Mount

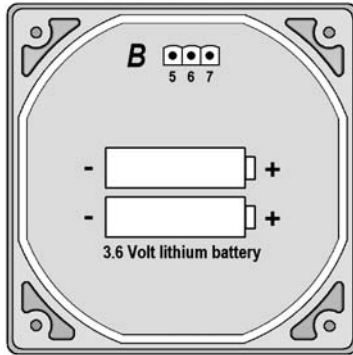


The compact mounting kit F9.KC1 includes the compact plastic adapter with gasket for IP65 watertight installation, the compact cap, the locking ring and four fixing screws for mounting the monitor directly onto the sensor. The instrument and the kit can be ordered separately (code F9.20 for the monitor and code F9.KC1 for the kit) or together using the code F9.20.XX.



## Rear Terminal View

### Terminal F9.20



B Sensor

SENSOR	
5	GND
6	IN
7	V+

## Technical Data

### General

- Associated flow sensor:
  - FLS FlowX3 Coil effect with frequency output
  - FLS FlowX3 Reed effect.
- Materials:
  - Case: PC
  - Panel gasket: Neoprene
  - Wall and Field gasket: EPDM
  - Keypad: 5 button silicone rubber.
- Display:
  - 3 line LCD: 2 x 12 alphanumeric lines and 1 icon line
  - Update rate: 1 second.
- Enclosure: IP65 front.

### Electrical

- Supply Voltage: 2 x 3.6 Volt Lithium thionyl chloride battery, 2.8 Ahr.
- Battery life: nominal 5 years.
- Sensor Input (Frequency):
  - Sensor power: 3.6 Volt
  - Range: 1 to 500 Hz.

### Environmental

- Operating temperature: -5 to +60°C (23 to 140°F).
- Storage temperature: -10 to +80°C (14 to 176°F).
- Relative humidity: 0 to 95% non condensing.

### Standards & Approvals

- Manufactured under ISO 9002.
- CE.

## Ordering Data

### Flow X3 F9.20

Part No.	Description
F9.20	Battery Powered Flow Monitor

### FlowX3 F9.20.P1 (Panel Mount version)

Part No.	Description
F9.20.P1	Panel Mount Battery Powered Flow Monitor

### FlowX3 F9.20.W1 (Wall Mount version)

Part No.	Description
F9.20.W1	Wall Mount Battery Powered Flow Monitor

### FlowX3 F9.20.XX (Compact Field Mount version)

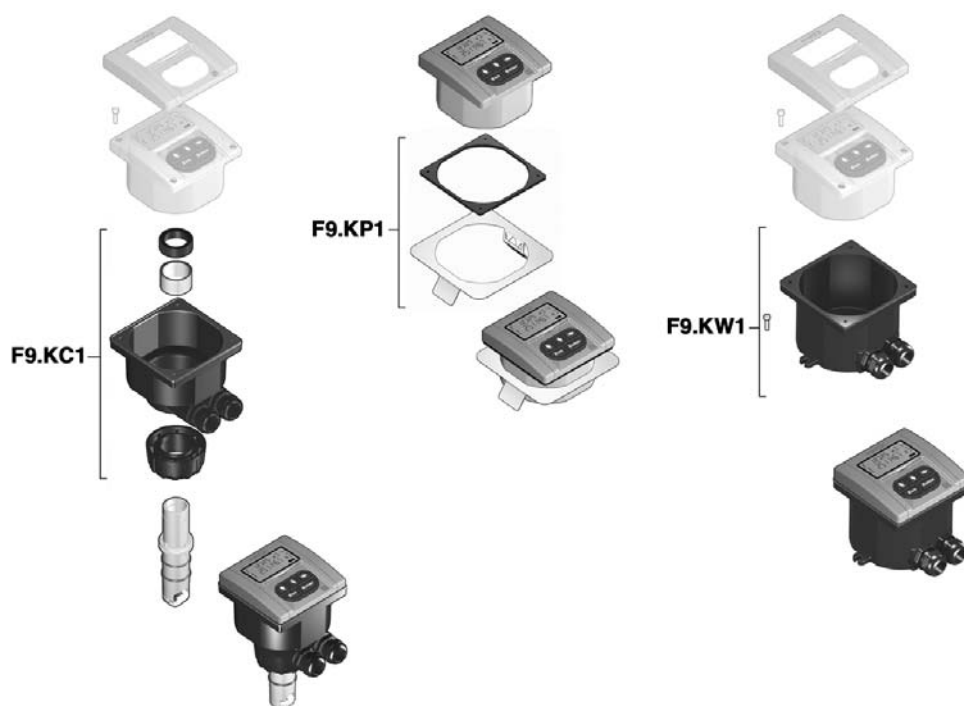
Part No.	Description	Sensor Length	Sensor Body	Sensor O-rings
F9.20.01	Field Mount Battery Powered Flow Monitor	L0	CPVC	EPDM
F9.20.02	Field Mount Battery Powered Flow Monitor	L0	CPVC	FPM
F9.20.03	Field Mount Battery Powered Flow Monitor	L1	CPVC	EPDM
F9.20.04	Field Mount Battery Powered Flow Monitor	L1	CPVC	FPM
F9.20.05	Field Mount Battery Powered Flow Monitor	L0	PVDF	EPDM
F9.20.06	Field Mount Battery Powered Flow Monitor	L0	PVDF	FPM
F9.20.07	Field Mount Battery Powered Flow Monitor	L1	PVDF	EPDM
F9.20.08	Field Mount Battery Powered Flow Monitor	L1	PVDF	FPM
F9.20.09	Field Mount Battery Powered Flow Monitor	L0	316L SS	EPDM
F9.20.10	Field Mount Battery Powered Flow Monitor	L0	316L SS	FPM
F9.20.11	Field Mount Battery Powered Flow Monitor	L1	316L SS	EPDM
F9.20.12	Field Mount Battery Powered Flow Monitor	L1	316L SS	FPM



## Ordering Data

### Mounting Kits

Part No.	Name	Description
F9.KC1	Compact mounting Kit	Plastic adapter with gasket, compact cap, locking ring and 4 fixing screws
F9.KP1	Panel mounting Kit	Mounting bracket with gasket
F9.KW1	Wall mounting Kit	Plastic adapter with gasket and fixing screws



### Spare Parts

Item	Part No.	Name	Description
1	F9.SP3	Cover	PC front cover, no LED
2	F9.SP4.1	PG 13,5	PG13,5 Cable Gland for Compact or Wall mounting Kit
	F9.SP4.2	PG 11	PG11 Cable Gland for Compact or Wall mounting Kit
3	F9.SP6	Replacement battery	3.6 Volt Lithium thionyl chloride battery

