# FT430/440/450
## RATE/TOTAL INDICATOR

**Seametrics**





**Optional Protective Cover Closed**

## THE RIGHT INDICATOR FOR

Water Treatment

Water Utility

Industrial Chemical Handling

## Features

- Simple Setup

- DC Powered (FT430)

- Loop Powered (FT440)

- Battery Powered (FT450)

- Remote or Flow Sensor Mounted Indicator

- Rugged Plastic Housing

- Non-volatile Memory

- Data Logging (Optional)

## Contact Your Supplier

The **FT430/440/450** flow computers are microcontroller-based indicator/transmitters that interface with pulse output flow sensors to compute and display flow rate, flow total, and also generate output signals representing flow. The FT430 and FT450 have one scaled pulse output and one pulse pass through. The FT440 has two scaled pulse outputs.

The FT450 is battery powered while the FT430 may be powered by an external DC power source or an optional internal AC power supply*. The FT440 is a "two-wire" or "loop powered" device, meaning that it is powered by the 4-20 mA loop circuit itself. An optional internal AC power supply* is available for the FT440 with dual 24 and 12VDC outputs to power both the loop and sensors requiring more power than the loop can supply.

Pulse and 4-20mA analog outputs can be used to signal external devices, e.g. certain metering pumps and water treatment controls. Alternatively, one or more pulse outputs can be configured as alarm outputs. These flow computers can be password protected to prevent resetting the total or changing configuration settings. Built-in data logging is available as an option for secure flow logging.

The FT430/440/450 indicators are available in wall and meter mount configurations. The FT430 and FT440 models can also be panel mounted.

Order the FT440 only if a 4-20mA output signal is a requirement or the FT450 if internal battery power is needed. Otherwise the FT430 can be ordered.

*Internal power supply is available for the wall mount option only.*

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## Specifications*

| | | FT430 | FT440 | FT450 |
|---|---|---|---|---|
| Power | | 7-30Vdc, 4mA | 9-30Vdc, 4mA (4-20 mA when loop-powered) | Lithium "C", 3.6Vdc, replaceable.  Life is ~5 years depending on usage. |
| Display | Rate | 5-digit autorange | 5-digit autorange | 5-digit autorange |
| | Total | 8-digit | 8-digit | 8-digit |
| Units | Rate Units | Gallons/Second/Minute/Hour/Day, Liter/Second/Minute/Hour/Day, Cubic Feet/Second/Minute/Hour/Day,  Cubic Meters/Second/Minute/Hour/Day, Mega Liters/Day, Million Gallons/Day, Fluid Oz/Second/Minute/Hour/Day, Barrels/Second/Minute/Hour/Day | | |
| | Total Units | Gallon, Gallon x 1000, Liters, Mega Liter, Cubic Meter, Acre Feet, Cubic Feet, Cubic Feet x 1000, Million Gallon, Acre Inch, Fluid Ounce, Barrels | | |
| Outputs | Pulse Output 1 | Scaled pulse output, high alarm output or low alarm output.  Optoisolated on FT430 and FT440.[1] | | |
| | Pulse Output 2 | Pulse pass through | Scaled pulse output, high alarm output or low alarm output.[1] | Pulse pass through |
| | Loop Power Output | N/A | 4-20mA Loop | N/A |
| Set P Range | | 0.1 - 99999.9 units/pulse | 0.1 - 99999.9 units/pulse | 0.1 - 99999.9 units/pulse |
| Input | | 5V pulse or contact closure | 5V pulse or contact closure | Micropower GMR Sensor (square wave) |
| Input Range | | 0.75[2] - 2000Hz | 0.75[2] - 2000Hz | 0.75[2] - 550Hz |
| K-Factor Range | | .001 - 999999.999 | .001 - 999999.999 | .001 - 999999.999 |
| Flow Alarm Output Range | | 0.1 - 99999.9 | 0.1 - 99999.9 | 0.1 - 99999.9 |
| Operating Temperature | | -5˚ to 55˚ C (23˚ to 131˚ F) | -5˚ to 55˚ C (23˚ to 131˚ F) | -5˚ to 55˚ C (23˚ to 131˚ F) |
| Non-Operating Temperature | | -40˚ to 75˚ C (-40˚ to 158˚ F) | -40˚ to 75˚ C (-40˚ to 158˚ F) | -40˚ to 75˚ C (-40˚ to 158˚ F) |
| Environmental | | NEMA 4X, IP67 | NEMA 4X, IP67 | NEMA 4X, IP67 |
| Regulatory | | CE Mark | CE Mark | CE Mark |

*Specifications subject to change • Please consult our website for current data (www.seametrics.com).*
*1 Scaled output pulses have a fixed width of 100ms.  Maximum pulses per second is 6.5Hz*
*2 For pulse frequencies <1 Hz, increase setting in SET F menu to 3 or higher.*
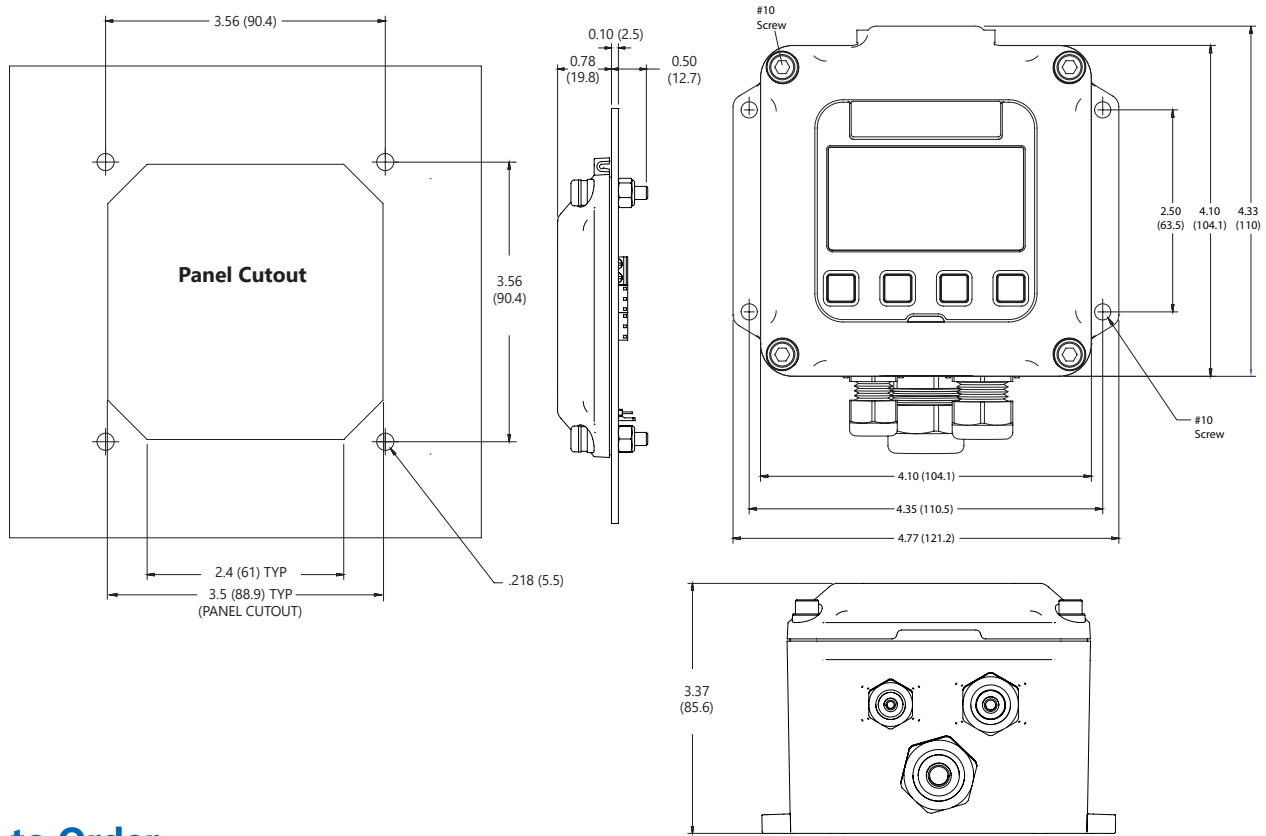
## Features



Protective Cover (Optional)
Display
Setup Keys**
Electronics Module
Lower Housing
Data Logger (Optional)
Strain Relief Cable Gland
Wall-Mount Brackets

***Includes password protection for tamper prevention when needed*

## Pulse Output Function Table

| PULSE OUTPUT 1 (SCALED) | FT430 | FT440 | FT450 |
|---|---|---|---|
| TYPE | Current sinking | Current sinking | Current sinking |
| MAX. VOLTAGE | 36 Vdc | 36 Vdc | 36 Vdc |
| MAX. CURRENT | 100 mA | 100 mA | 100 mA |
| MAX. FREQUENCY | 6.5 Hz | 6.5 Hz | 6.5 Hz |
| PULSE WIDTH | 100 ms | 100 ms | 100 ms |
| ISOLATION | 300 V | 300 V | NOTE 1 |
| CONFIGURABLE AS ALARM | YES (High or Low) | YES (High or Low) | YES (High or Low) |
| PULSE OUTPUT 2 (SCALED) | FT430 | FT440 (Note 2) | FT450 |
| TYPE | Not Available | Current sinking | Not Available |
| MAX. VOLTAGE | | 36 Vdc | |
| MAX. CURRENT | | 100 mA | |
| MAX. FREQUENCY | | 6.5 Hz | |
| PULSE WIDTH | | 100 ms | |
| ISOLATION | | 300 V | |
| CONFIGURABLE AS ALARM | | YES (High or Low) | |
| PULSE OUTPUT 2 (PASS-THROUGH) | FT430 | FT440 | FT450 |
| TYPE | Current sinking | Not Available | Current sinking |
| MAX. VOLTAGE | 36 Vdc | | 36 Vdc |
| MAX. CURRENT | 10 mA | | 100 mA |
| MAX. FREQUENCY | 2000 Hz NOTE 2 | | 550 Hz |
| PULSE WIDTH | SAME AS SENSOR INPUT | | SAME AS SENSOR INPUT |
| ISOLATION | 300 V | | NOTE 1 |
| CONFIGURABLE AS ALARM | NO | | NO |

*NOTE 1: 150 V effective isolation when using Seametrics micropower sensors.  •  NOTE 2: With 2000 ohm or lower pull-up resistance.*

## Dimensions  Dimensions are in Inches (Millimeters)



**Panel Cutout**

3.56 (90.4)

3.56 (90.4)

2.4 (61) TYP

3.5 (88.9) TYP (PANEL CUTOUT)

.218 (5.5)

0.10 (2.5)

0.78 (19.8)

0.50 (12.7)

#10 Screw

2.50 (63.5)   4.10 (104.1)   4.33 (110)

#10 Screw

4.10 (104.1)

4.35 (110.5)

4.77 (121.2)

3.37 (85.6)

## How to Order

**MODEL**
DC-powered indicator = **FT430**

Loop-powered indicator/transmitter = **FT440**

Battery-powered indicator = **FT450**

**MOUNTING**
Wall mount = **-W**

Panel mount = **-P** (FT430/FT440 only)

Meter mount = **See appropriate meter specification to order meter mounted units.**

**OPTIONS**
Tamper-evident = **-32**

Non-resettable total = **-64**

Dual Relay Output (FT430/440 only) = **-98**

Display Cover = **-126**

Internal Data Logger = **-127**

Built-in 120/240 Vac/12/24 Vdc dual power supply (FT430W/FT440W only) = **-139**

Built-in 120/240 Vac/12 Vdc single power supply (FT430W for use with mechanical or magmeters, FT440W for use with mechanical meters) = **-140**

**ACCESSORIES**

Display Cover = **102021**
Dual power supply, plug-in, 115 Vac, 12/24 Vdc = **PC42**
Power converter, plug-in, 115 Vac, 24 Vdc = **PC3**
FT430/440 Dual Relay Option w/wire adapter = **100557**

**ADAPTER KITS**

| | Part # | Electronics module | Lower wall housing | Lower meter housing |
|---|---|---|---|---|
| Convert wall to meter mount (MK15) | 103594 | White | White | White |
| Convert meter to wall mount (MK25) | 103396 | White | White | White |
| Adapter kit to mount white electronics to blue housing | 103391 | White | Blue | Blue |
| Adapter kit to mount white electronics to blue housing/ Tamper evident | 103392 | White | Blue | Blue |

*User is responsible for reviewing end use application with their supplier for product suitability.*

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