FT430/440/450
RATE/TOTAL INDICATOR

Seametrics
Precision Flow Measurement
An ONICON Brand

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

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. Galvanic isolation is provided for most 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.

The FT430/440/450 meters are available in wall and meter mount configurations. The FT430 and FT440 models can also be panel mounted. Some configurations can be converted from wall to meter or meter to wall after installation if needed. Consult factory for details.

Order the FT440 only if a 4-20mA output signal is a requirement and the FT450 if internal battery power is needed. Otherwise the FT430 offers the most flexibility.

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

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		C E Mark	C E Mark	C E 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

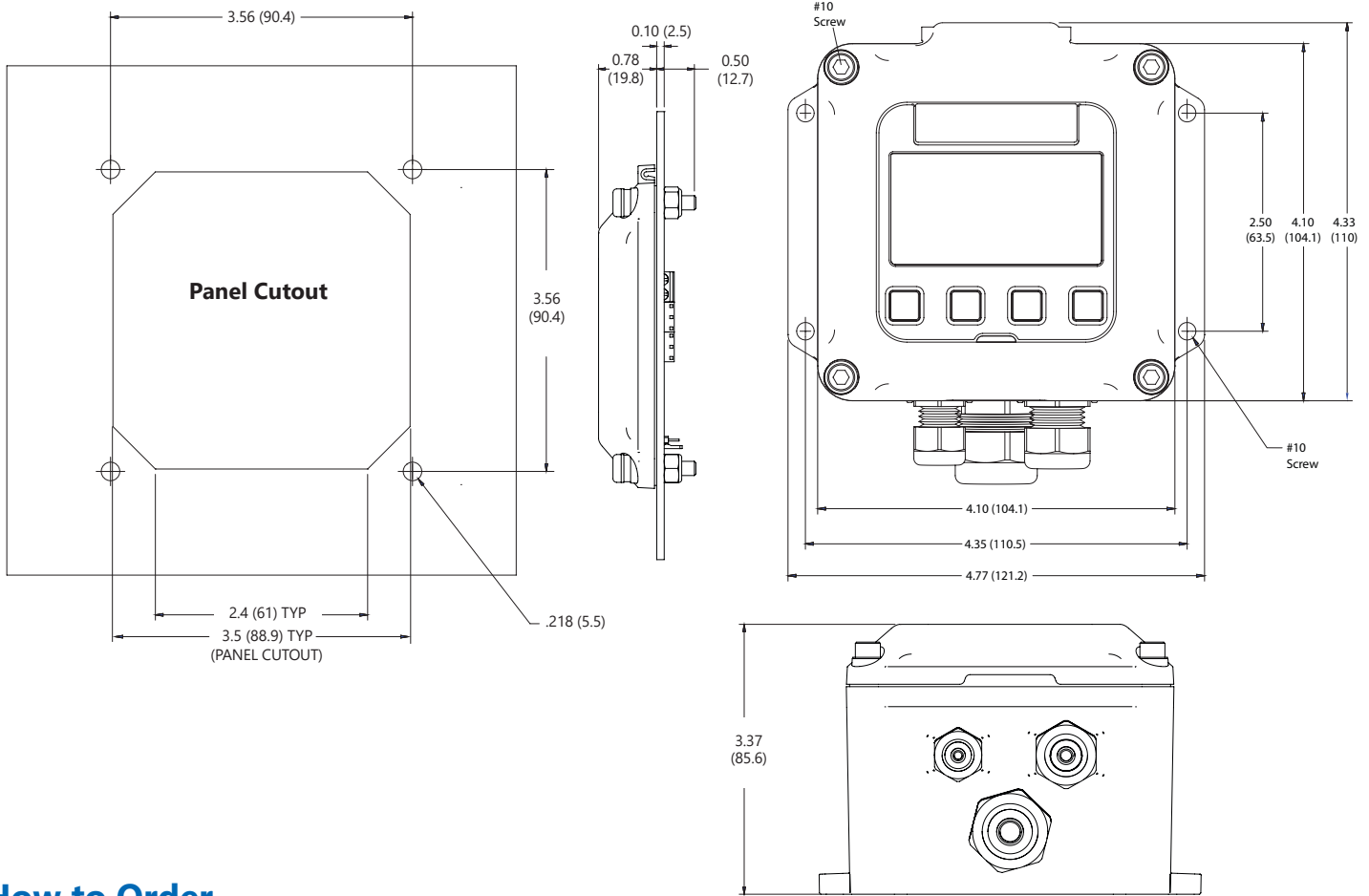Strain Relief Cable Gland

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		Current sinking	
MAX. VOLTAGE		36 Vdc	
MAX. CURRENT		100 mA	
MAX. FREQUENCY	Not Available	6.5 Hz	Not Available
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		Current sinking
MAX. VOLTAGE	36 Vdc		36 Vdc
MAX. CURRENT	10 mA		100 mA
MAX. FREQUENCY	2000 Hz NOTE 2	Not Available	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**

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**
LMI pump power cable = **100013**
LMI pulse out cable = **100039**
Power converter, plug-in, 115 Vac, 24 Vdc = **PC3**
FT430 Module = **103591-01**
FT440 Module = **103591-02**
FT450 Module = **103591-03**
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 (MK10)	102632	Blue	Blue	Blue
Convert wall to meter mount (MK15)	103594	White	White	White
Convert meter to wall mount (MK20)	102633	Blue	Blue	Blue
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

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