FT430/440/445
RATE/TOTAL INDICATOR





Optional Protective Cover Closed

THE RIGHT INDICATOR FOR

- Water Treatment
- Water Utility
- Industrial Processes
- Reuse/Reclaim Water
- Dewatering
- Irrigation
- Well Usage Monitoring

Features

- Simple Setup
- DC Powered (FT430)
- Loop Powered (FT440)
- Battery Powered (FT445 w/passive 4/20mA)
- Remote or Flow Sensor Mounted Indicator
- Rugged Plastic Housing
- Non-volatile Memory
- Data Logging (Optional)
- Sensus Smart Output (Optional)

Contact Your Supplier

The **FT430/440/445** 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 FT445 have one scaled pulse output and one pulse pass through. The FT440 has two scaled pulse outputs.

The FT445 is battery powered and has a 4-20mA loop output that powers the unit when the loop is energized, while the FT430 may be powered by an external DC power source or an optional internal AC power supply*. The FT440 is always a “two-wire” or “loop powered” device, meaning that it is only 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 FT430/440/445 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 on an externally powered unit and the FT445 if internal battery power is needed with or without a passive 4-20mA loop. Otherwise the FT430 can be ordered.

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

Specifications*

		FT430	FT440	FT445
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[4] or the unit will be powered by 4-20mA loop when connected to a 9-30 Vdc powered loop, 4mA min. 4-20mA when loop powered.
Display	**Rate**	5-digit autorange	5-digit autorange	5-digit autorange
	Total	8-digit[5]	8-digit[5]	8-digit[5]
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[3]	4-20mA Loop when externally powered[3]
	Sensus Smart Output (Sensus Smart Point 510M Only)	Optional	Optional	Optional
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).*
** For Data Logger operation and set-up, see FlowInspector Instructions.*
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.
3 When calculating total resistive load for loop power (volts/.020 amps = ohms) be sure to subtract 400 Ω from the total to account for basic operation of the FT440
4 Battery life will be shortened with longer run times and higher pulse rates.
5 Display does not roll over but actual total continues to accumulate in memory.

Features



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

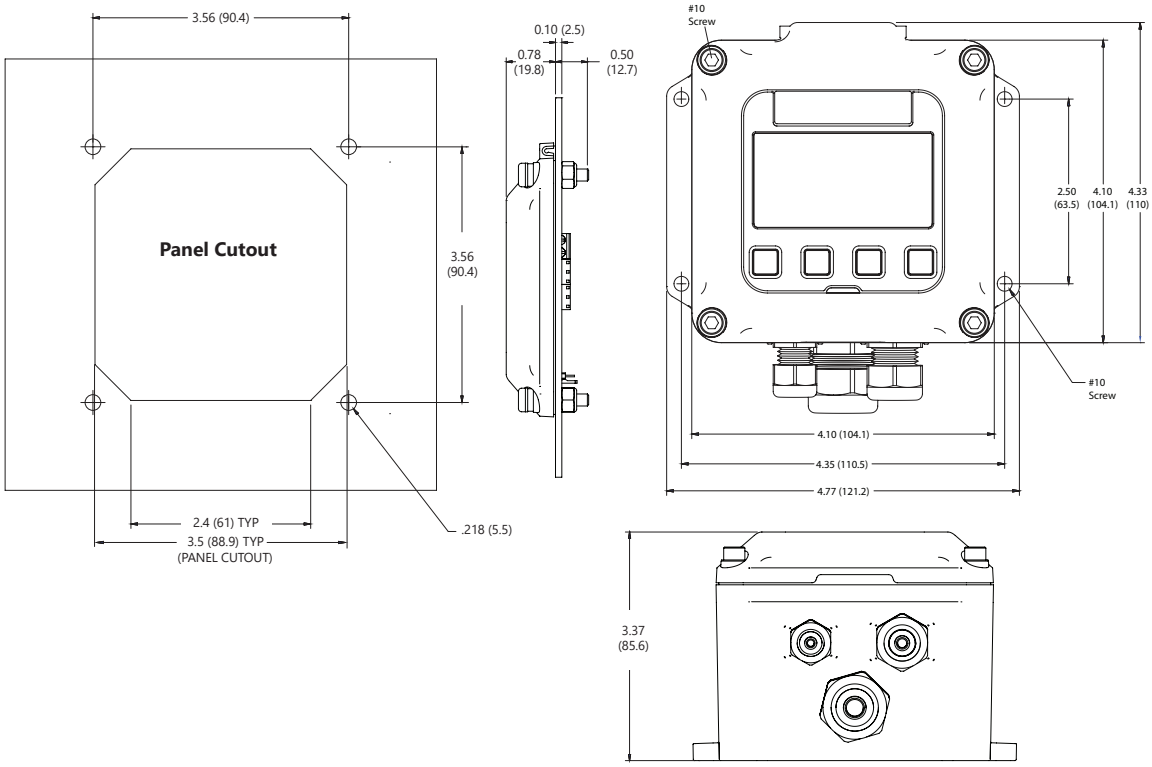
Pulse Output Function Table

PULSE OUTPUT 1 (SCALED)	FT430	FT440	FT445
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)	FT445
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	FT445
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)



How to Order

MODEL

DC-powered indicator = **FT430**

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

Battery-powered indicator
(or powered by 4-20mA loop
when powered loop is connected.) = **FT445**

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**

Sensus Smart Output (Includes 6' Cable) **= -150***

*Units can be ordered with Data Logger or Sensus, but not both.

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.