

## FT400-SERIES Rate/Total Indicator



Protective Cover Closed



### FEATURES

- Simple Setup
- DC Powered (FT430), Loop Powered (FT440) or Battery Powered (FT450)
- Remote or Flow Sensor Mounted Indicator
- Rugged Plastic Housing
- Non-volatile Memory

### THE RIGHT INDICATOR FOR

- Water Treatment
- Water Utility
- Industrial Chemical Handling



# FT400-SERIES Rate/Total Indicator

## GENERAL INFORMATION

The FT400 series 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 while the FT440 has two. In addition to a scaled pulse output, all three models provide an alternative pulse pass-through output. Galvanic isolation is provided for most pulse outputs (see table.)

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.

Available 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. FT400 Series flow computers can be password protected to prevent resetting the total or changing configuration settings.

All FT400 meters are available in wall or panel mount configurations. The FT430/440 models can be factory mounted on the meter. Some configurations of the FT400 series 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
<b>Power</b>		7-45Vdc, 4mA	7-45Vdc, 4mA (4-20 mA when loop-powered)	Lithium “C”, 3.6Vdc, replaceable. Life is ~5 years depending on usage.
<b>Display</b>	<b>Rate</b>	5-digit autorange	5-digit autorange	5-digit autorange
	<b>Total</b>	8-digit	8-digit	8-digit
<b>Units</b>	<b>Rate Units</b>	Gallons/Second/Minute/Hour/Day, Liter/Second/Minute/Hour/Day, Cubic Feet/Second/Minute/Hour/Day, Cubic Meters/Second/Minute/Hour/Day, Miner’s Inch, Mega Liters/Day, Million Gallons/Day, Fluid Oz/Second/Minute/Hour/Day		
	<b>Total Units</b>	Gallon, Gallon x 1000, Liters, Mega Liter, Cubic Meter, Acre Feet, Cubic Feet, Cubic Feet x 1000, Million Gallon, Miner’s Inch Day, Acre Inch, Fluid Ounce		
<b>Outputs</b>	<b>Pulse Output 1</b>	Scaled Pulse Output, High Alarm Output or Low Alarm Output. Optoisolated on FT430 and FT440.**		
	<b>Pulse Output 2</b>	Jumper selectable: Scaled Pulse Output or Pass-through. Optoisolated on FT430 and FT440.**		
	<b>Loop Power Output</b>	N/A	4-20mA Loop	N/A
<b>Set P Range</b>		0.1 - 99999.9 units/pulse	0.1 - 99999.9 units/pulse	0.1 - 99999.9 units/pulse
<b>Input</b>		5V pulse or contact closure	5V pulse or contact closure	Micropower GMR Sensor (square wave)
<b>Input Range</b>		2000 Hz Max	2000 Hz Max	550 Hz
<b>K-Factor Range</b>		.001 - 999999.999	.001 - 999999.999	.001 - 999999.999
<b>Flow Alarm Output Range</b>		0.1 - 99999.9	0.1 - 99999.9	0.1 - 99999.9
<b>Operating Temperature</b>		0° to 55° C (-32° to 131° F)	0° to 55° C (-32° to 131° F)	0° to 55° C (-32° to 131° F)
<b>Non-Operating Temperature</b>		-40° to 75° C (-40° to 158° F)	-40° to 75° C (-40° to 158° F)	-40° to 75° C (-40° to 158° F)
<b>Environmental</b>		NEMA 4X, IP67	NEMA 4X, IP67	NEMA 4X, IP67
<b>Regulatory</b>		CE Mark	CE Mark	CE Mark Pending

\*Specifications subject to change • Please consult our website for current data ([www.seametrics.com](http://www.seametrics.com)).

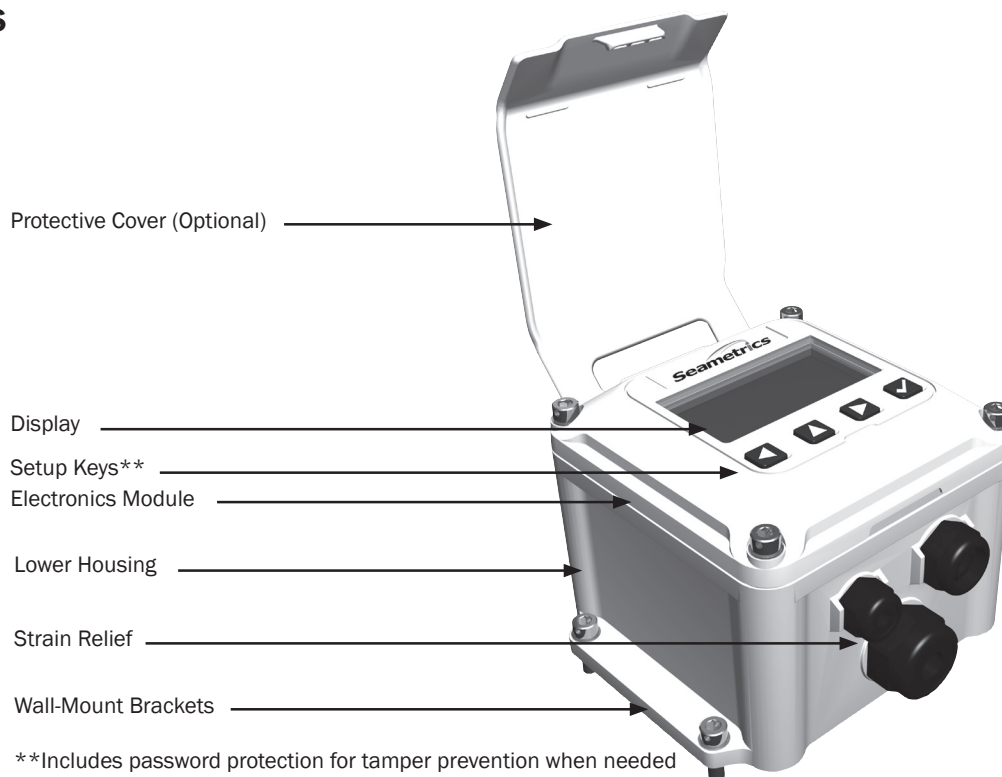
\*\*Scaled output pulses have a fixed width of 100ms. Maximum pulses per second is 6.5Hz

## FT400 SERIES PULSE OUTPUT FUNCTION TABLE

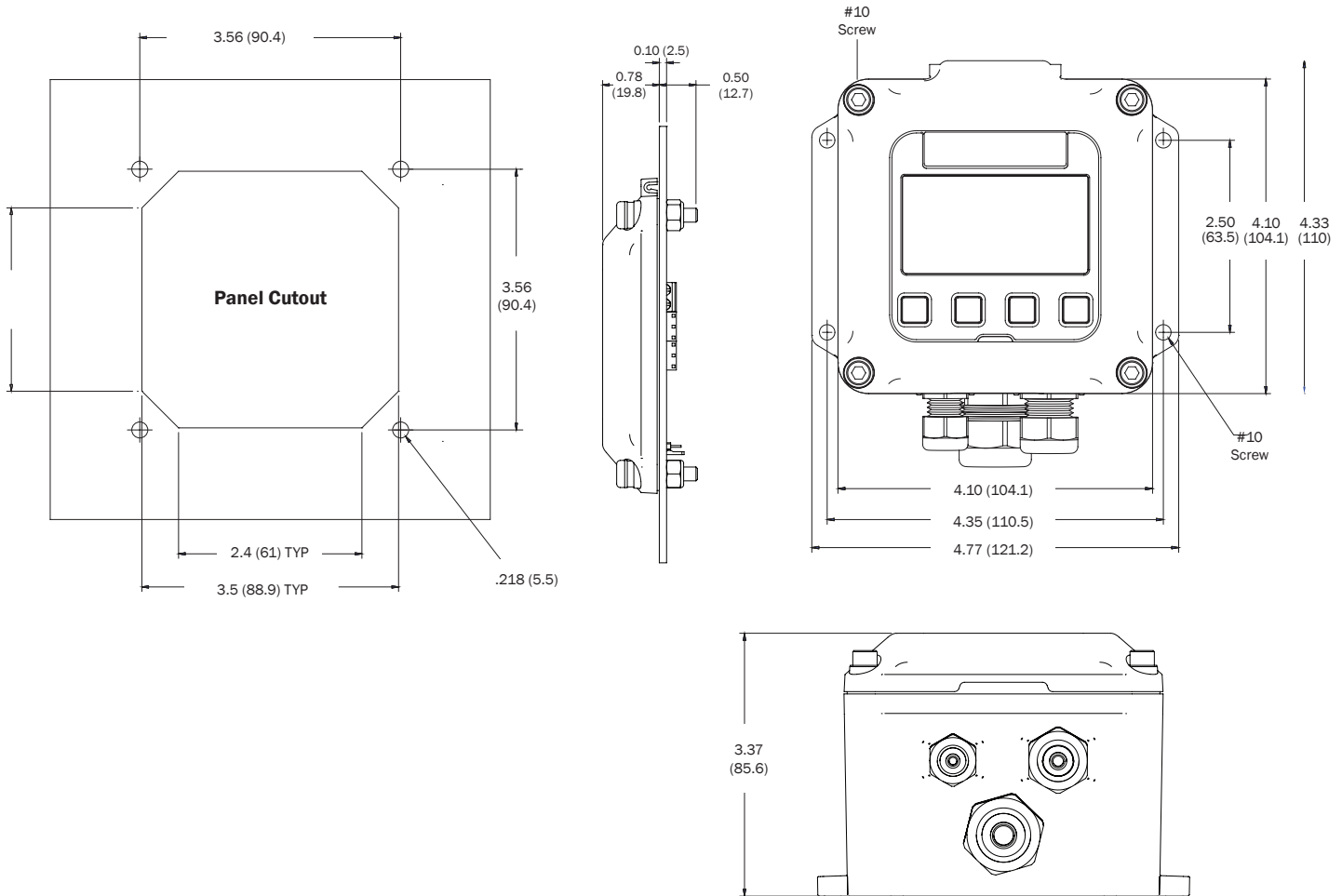
PULSE OUTPUT 1 (SCALED)	FT430	FT440	FT450
TYPE	Current sinking	Current sinking	Current sinking
MAX. VOLTAGE	45 Vdc	45 Vdc	3.6 V
MAX. CURRENT	100 mA	100 mA	100 mA
MAX. FREQUENCY	6.5 Hz	6.5 Hz	6.5 Hz
PULSE WIDTH	100 ms	100 ms	100 ms
ISOLATION	300 V	300 V	NOTE 1
CONFIGURABLE AS ALARM	YES (High or Low)	YES (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		45 Vdc	
MAX. CURRENT		10 mA	
MAX. FREQUENCY		6.1 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	45 Vdc		3.6 V
MAX. CURRENT	100 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.

## FEATURES



## DIMENSIONS Dimensions are in Inches (Millimeters)



## HOW TO ORDER

### MODEL

DC-powered indicator = **FT430**  
 Loop-powered indicator/transmitter = **FT440**  
 Battery-powered indicator = **FT450**

### MOUNTING

Wall mount = **-W**  
 Panel mount = **-P**  
 Meter mount = **See appropriate meter specification to order meter mounted units.**

### OPTIONS

Tamper-evident = **-32**  
 Non-resettable total = **-64**  
 Display Cover = **-126**  
 Built-in 120/240 Vac/12/24 Vdc power supply (FT430W & FT440W only, use with magmeters) = **-139**  
 Built-in 120/240 Vac/12 Vdc power supply (FT430W only, use with magmeters) = **-140**

## ACCESSORIES

Power converter, plug-in, 115 Vac, 24 Vdc = **PC3**  
 Dual power supply, plug-in, 115 Vac, 12/24 Vdc = **PC42**  
 LMI pump power cable = **100013**  
 LMI pulse out cable = **100039**

FT430 Module = **103395-01**  
 FT440 Module = **103395-02**  
 FT450 Module = **103395-03**  
 Wall to meter mount adapter kit, standard = **103391**  
 Wall to meter mount adapter kit, tamper evident = **103392**  
 Meter to wall mount conversion kit = **103396**