

## FEATURES:-

- Displays Flowrate, Resettable Total and also Non Resettable Grand Total.
- LCD has large digits and easy to read from distance.
- Easy reset total button on front panel.
- Power options: Internal Lithium battery with up to 10 year life span or Externally powered 240 VAC or 5 - 25 VDC models.
- High and Low set points, pulse and 4-20mA outputs options are available.
- IP65 wall mountable enclosure with flip up lid to protect LCD from weather.
- User friendly and fully programmable functionality.
- Maximum ambient Temperature 40 °C.
- Made in Australia by ManuFlo.



The **FRT303** Flowrate Totalizer is designed to operate with a wide range of pulse/signal output or coil output flowmeters, providing an instantaneous flowrate reading with a resettable Total display and Grand Total display. To toggle the display between the Total and the Grand Total, simply touch the front panel button once. To reset the Total, touch the front panel button twice.

Power is via either: an internal Lithium battery which has a typical life of up to 10 years; optional external 5-25 VDC; or optional external 240 vac. The **FRT303** will accept flowmeter input pulses from as low as 0.2 and up to 2000 Hz (Note: for steady flowrate calculations, need at least 2 Hz input). A filter factor is programmable, to smooth the flowrate reading for pulsating flows.

The **FRT303** has other fully programmable optional features including pulse output, 4-20mA output, and Hi-Low flow setpoint outputs. All functions are entered via internal keypads and a menu display.

The LCD of the **FRT303** can be programmed to indicate flowrate and totals in a number of different engineering units. Prior to shipping by default all application parameters are pre-programmed according to customer requirements, including display unit preferences and the flowmeter K-factor (your preferences must be advised at time of order placement).

The **FRT303** is provided in a compact IP65 Polycarbonate enclosure with molded mounts, allowing it to be used in a wide range of field applications.

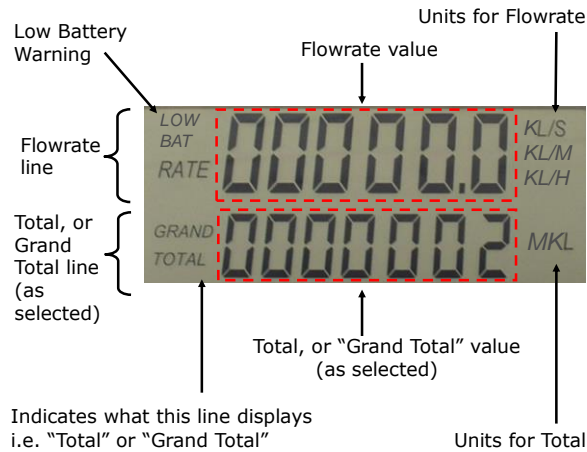


## WARNING



- This product is intended to and must be wall mounted in accordance with the relevant safety standards.
- The FRT303 must not be used with the enclosure door open as there is a risk of electric shock from exposed high voltage AC.
- Disconnect main supply before opening unit to add, adjust or remove any wiring connections as well as performing cleaning and maintenance.

**PLEASE READ INSTALLATION, MAINTENANCE AND OPERATING INSTRUCTIONS BEFORE USE. IF THIS EQUIPMENT IS USED IN A MANNER NOT SPECIFIED IN THIS MANUAL, THE PROTECTION PROVIDED BY THE EQUIPMENT MAY BE IMPAIRED.**

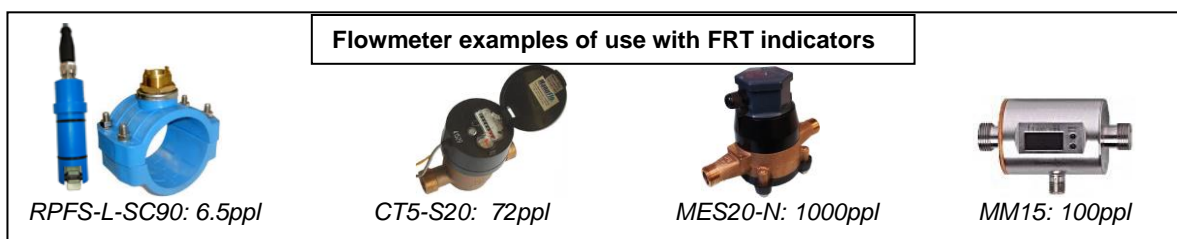


## SPECIFICATIONS

## FRT303

<b>Display Type</b>	LCD , dual line
<b>Display Readout Flowrate</b>	6 digits (17mm x 7mm) up to 3 decimal places, in Litres/second , Litres/minute, Kilolitres/minute, Kilolitres/second or Kilolitres/hour. (with filter setting)
<b>Display Readout Reset Total</b>	up to 7 digits (13mm x 6mm), up to 3 decimal places, in Litres, Kilolitres or Megalitres.
<b>Display Readout Grand Total</b>	7 digits (13mm x 6mm) up to 3 decimal places, in Litres, Kilolitres or Megalitres
<b>Programming</b>	Via 4 internal push buttons
<b>Power Supply Options</b>	<p><u>Option 1</u>: - <b>3.6v</b> 2700mAh AA non replaceable lithium battery (No power provided to Flowmeter)</p> <p><u>Option 2</u>: - <b>5 -25 VDC</b> (usually power flowmeter by same input voltage supply, max.115mA Input Current).</p> <p><u>Option 3</u>: - <b>240 VAC ±10% 11.2mA, Overvoltage category II</b> (Provides a +12VDC auxiliary output to power a flowmeter, max.100mA).</p> <p><i>NOTE: Option 1 using 3.6v lithium battery as main supply, options 2 and 3 use 3.6v lithium battery as backup supply. See order code on page 3 for models and variation details.</i></p>
<b>Display Housing Ingress</b>	IP65, Sealed Polycarb. enclosure with flip lid & 4 x 316S/S screws.
<b>Environment</b>	<p>5 – 40 Degrees Celsius</p> <p>0% to 75% relative humidity</p> <p>Up to 2000m Altitude</p> <p>Pollution Degree 1 Indoor Use (air is not significantly polluted by dust, oil, or chemicals)</p>
<b>Pulse input (compatibility)</b>	NPN 5-25vdc, Voltage free switching or optional coil sensor configured input. 0.2 to 2,000 Hz (note: minimum 2Hz is required for stable flow rate readings).
<b>Pulse Output</b>	Open collector 5-25VDC. 5ms fixed pulse width,100Hz max. (sink pls for –B-P bat.pwr option)
<b>Current Output</b>	4 - 20 mA.
<b>High/Low Flowrate Setpoints</b>	Open collector 5-25 VDC contact output.
<b>Enclosure Dimensions:</b>	120mm (H) x 125mm (W) x 60mm (D) including Fastening lugs with 123mm centers apart, and PG7 Cord glands.
<b>Electrical connection</b>	<p>1,or 2 or 3 IP67 -PG7 cable gland entries (depends on model) , plug-in screw terminals.</p> <p><b>NOTE: Over current protection devices are not included in this equipment and is optional to be included in the building installation.</b></p> <p><b>For Option 2: Double pole 50VDC 200mA circuit breaker recommended.</b></p> <p><b>For Option 3: Double pole 240VAC 50mA circuit breaker recommended.</b></p>
<b>Weight (unpacked)</b>	0.45 kg

Order Code	Power Option	Input to FRT from Flowmeter			Outputs				
		Coil	Reed Switch or Open Collector	Pulse/NAMUR	Pulse Output (isolated)	Pulse Output (non-isolated)	High/Low Flowrate indication	4-20mA current output (isolated)	4-20mA current output drive
FRT303-B	Battery	Y	Y						
FRT303-B-P	Battery	Y	Y			Y			
FRT303-D	DC External power	Y	Y	Y					
FRT303-D-P	DC External power	Y	Y	Y	Y				
FRT303-D-E	DC External power	Y	Y	Y	Y		Y		Y
FRT303-A-P	AC External power	Y	Y	Y	Y				
FRT303-A-E	AC External power	Y	Y	Y	Y		Y		Y



**Footnote:** FRT303-A (AC powered version) cannot be used with 12-24vdc Magnetic Flowmeters, instead procure separate 240-24vdc power adaptor from ManuFlo and or use with FRT303-D (24vDC powered version).

\* Refer Separate Instruction manual for detailed Specs, Programming and wiring of FRT303.