RT7 RATE TOTALISER

The RT7 takes the pulsed output from any flowmeter and displays the flow rate and total of your process liquid.

Easy to use ✓
- Quick and easy to set up
- Large easy to read displays
- Preset to your requirements

Improves flowmeter performance ✓
- Makes readings more accurate
- Improve product quality
- Monitor costs
- Reduce waste and save money

High and low alarms ✓
- Monitor your process
- Protect your equipment

Robust design ✓
- Tough aluminium case
- Splash proof keypad

High quality manufacture ✓
- ISO 9001 certified company

Application
The RT7 gives you a display of the flow rate and total flow of liquids in your application. You can use it for monitoring, controlling, dispensing, blending or filling of any liquid.

Operation
The RT7 takes a pulse input from your flowmeter and simultaneously displays the flowrate and total. It also displays a non resettable accumulated total at the touch of a button. High and low flow rate alarms can be used as part of a safety system to protect your plant. There is a scaled pulse output and an analogue 4-20mA output for transmission to other instruments or control equipment.

Installation and Setup
The setup is easy using the keypad and a 'beep' is sounded with all keystrokes. The RT7 can be supplied preconfigured for your application. Operator access to the setup menu can be inhibited.

Features
Alarms: Two flow rate alarms are available. The low alarm relay will energise when your flow rate falls below a preset value. The high alarm relay will energise when your flow rate rises above a preset value.
The relays can be used for audible or visual alarms or to safely shutdown systems to protect equipment. The LED's on the front panel will indicate when there is a high or low alarm condition.
Analogue output:
An optional 4-20mA or 0-10V output is available for transmission to other instruments or control equipment. It is scaleable to your requirements and provides an accurate and fast response to changes in flow rate.
Linearisation: The accuracy of any flowmeter can be improved by programming the calibration errors of the flowmeter into the RT7.
Damping: Decreases the response time to steady the display of the flow rate. The level of damping can be adjusted depending on how erratic the readings are due to liquid turbulence, pump pulsation or fast valve actuation.

Construction
The RT7 has a tough aluminium case in standard ¼ DIN format for mounting in a panel. The front bezel and keypad has a splashproof seal that is resistant to most chemicals.

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Rate Totaliser

Specification

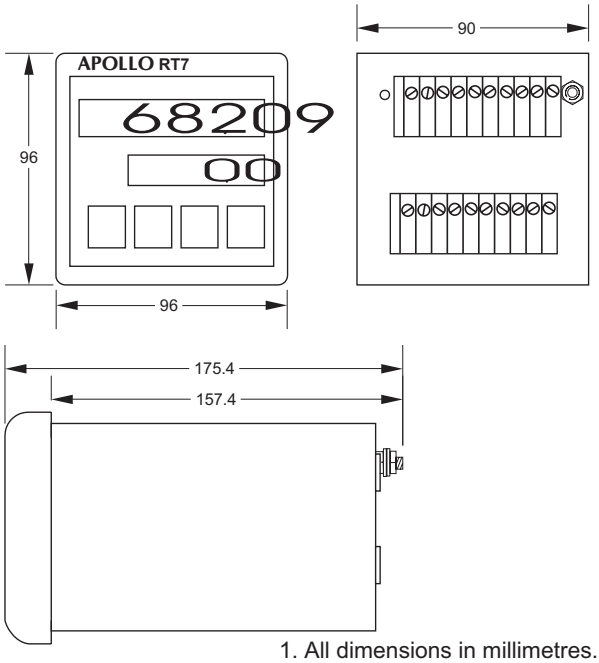
Construction:	Panel mounting instrument
Enclosure materials:	
Case:	Black powder coated aluminium
Bezel:	High impact phenolic plastic
Front keypad:	Polyester with red anti-glare
Protection:	IP65 - bezel / face
	IP21 - rear case
Dimensions:	H 96mm X W 96mm X D 175.4mm
Panel Cut-out:	92mm X 92mm
Weight:	1.2 kgs
Power input:	
Mains:	Factory set 110 or 230 V AC 45-65 Hz
DC Supply:	12 - 24 V DC
	300mA typical
Power output:	8 - 24 V DC 50 mA
Display:	6 digit 14mm high LED
	6 digit 10mm high LED
Time reference:	Quartz crystal
Temperature range:	0 - 45^{0}C
	Adequate ventilation is required round the instrument to ensure natural convection cooling
Connections:	2 rows of through panel terminals

Input signals

1. Pick-off Coil:	
Sine wave min:	7mV all frequencies
Sine wave max:	35V high frequency
	15V low frequency
2. Preamplifier:	
Switch level:	Low level < 8mA
	High level > 12mA
	Input current max:50mA
3. Switch:	
Low frequency:	DC to 400Hz
High frequency:	DC to 5kHz
4. Pulse:	
Switch threshold:	Selectable 2.5V or 1.4V
5. Proximity switch:	Namur DIN 19234
Switch threshold:	2.2 V
Switch level:	Low level < 1mA
	High level > 3mA

Outputs

Pulse Output:	
Scaled pulse:	Open collector switching transistor
Pulse duration:	50 msec
Analogue Output:	
4-20mA:	The set points are selectable
0-10V:	The set points are selectable
Accuracy:	0.2%
Flow Alarm Relays:	
Control relay:	2 SPDT relays
Switching voltage:	250 V AC 30 V DC
Switching current:	8 A
Rate Format:	
Range:	0.0001 to 999999
Linearity points:	Up to 8 factors
Linearity correction:	Up to +/- 9.99%
Total Format:	
Total Resolution:	Total can be preset to display 1, 0.1 or 0.01
3mm LED Status indication:	
Relay 1:	When the flow rate drops below the low flow alarm level, relay 1 will be energised and the 'relay 1' LED will come on.
Relay 2:	When the flow rate rises above the high flow alarm level, relay 2 will be energised and the 'relay 2' LED will come on.



1. All dimensions in millimetres.
2. Panel cut-out to be 92 x 92.

Apollo Flow Measurement Ltd, Charles Street, Walsall WS2 9LZ
Tel: 01922 645 647 Fax: 01922 640 326

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ISO 9001 Cert. FM 31709