

### Features

- DC Analog Current / Voltage Input
- 5 Digit Flow Rate Indication with Programmable Time Base, Range and Resolution
- Square Root Extraction ( $\Delta P$  to Flow Rate Conversion)
- 32-Point User Linearization for Non-Linear DC Input
- Facility to View & Store Min/Max Flow Rate Values
- Retransmission Output Proportional to Flow Rate
- 2 Independent Programmable High/Low Flow Rate Alarms with Relay Outputs
- 8 Digit Total Flow Indication with Automatic Roll-over & Over-flow Counts
- Timer for Recording the Total Flow Time (HH:MM:SS)
- Power-fail Retention of Total Flow Counts & Time
- 2 Independent Total Flow Limits for Alarm & Batch Control with Relay Outputs
- 24 VDC @ 30 mA Transmitter Excitation Supply Voltage
- RS485 Port for MODBUS Over Serial Communication
- Size (mm) : 96(H) X 96(W) X 100(D)



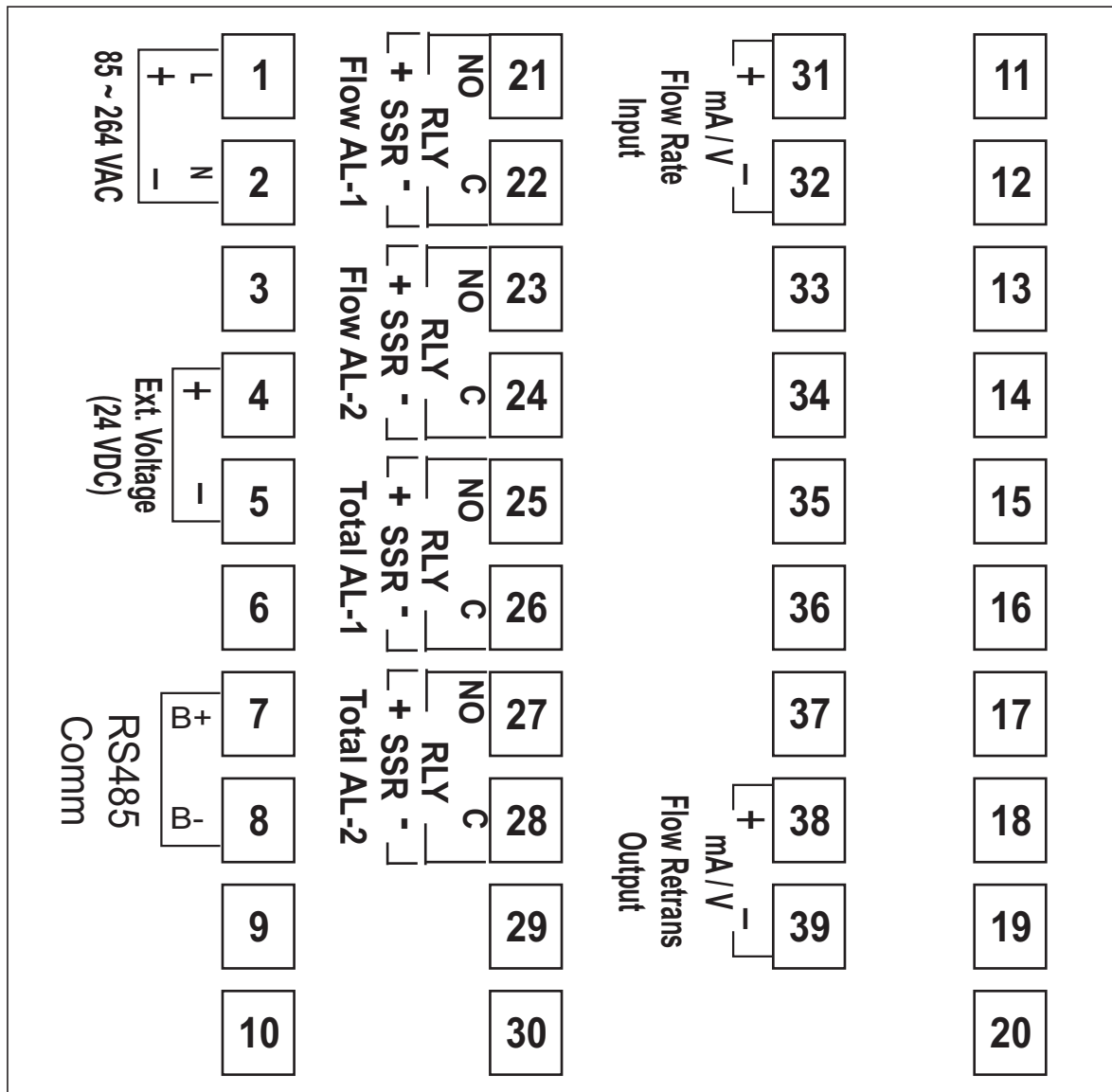
### Specifications

Display	
Digital Readout	Flow Rate : 5 digits, 0.39" Bright Red LED, 7 Segment Total Flow : 16 Characters X 2 Rows Backlight LCD
Status Indicators (6 Red LEDs)	Flow Rate : Alarm-1, Alarm-2, Square-Root Enable Total Flow : Alarm-1, Alarm-2, Over-flow
Keys	
Type	8 Tactile Switches
Functions	Total Flow RST, Alarm ACK, OPR Page Entry, Display SCRoll PAGE, DOWN, UP, ENTER
Sensor Input	
Type (User Programmable)	0 - 20 mA, 4 - 20 mA 0 - 50 mV, 0 - 200 mV, 0 - 1.25 V, 0 - 5 V, 0 - 10 V, 1 - 5 V
Accuracy	$\pm 0.25\%$ of reading, $\pm 1$ LSD
Display Range	Flow Rate : 0 to 30000 Counts Total Flow : 0 to 99999999 Counts [with Upto 125 Over-flow Counts]
Display Resolution (User Programmable)	1, 0.1, 0.01, 0.001 (Applicable for Both Flow Rate & Total Flow)
User Linearization	Upto 32 (X, Y) Co-ordinates
Measuring Rate	Flow Rate : 5 Samples per Second (sampling time 200mS) Total Flow : 1 Second
Flow Rate Time Base (Flow per Unit Time)	User Settable : Seconds, Minutes, Hours
Zero Offset (Flow Rate)	User Adjustable : -19999 to 30000 Counts
Signal Conditioning	L-C Analog Filter with Programmable Digital Low-Pass Filter

<b>Alarms</b>		
	<b>Flow Rate</b>	<b>Total Flow</b>
Numbers	2, Independent	2, Independent
Programmable Parameters	Type : Process Low, Process High Logic : Normal, Reverse Hyst : 1 to 30000 Counts Inhibit : No, Yes Latch : No, Yes	Select : Enable, Disable Setpoint : 1 to 99999999 Counts Over-run : 0 to 125 Counts Logic : Normal, Reverse Time : 0 to 125 Seconds
Outputs (Optional)	2 X Relay/SSR Drive	2 X Relay/SSR Drive
<b>Retransmission (Flow Rate)</b>		
Signal Type	DC Volts (0-5/10 V) or DC Current (0/4-20 mA)	
PV Range	User Settable through 'Range Low' and 'Range High' Parameters	
<b>Outputs</b>		
Relay	Contact Type : Potential-free Change-over Contacts Contact Rating : 5A Resistive @ 120/240 VAC Contact Life : > 5,00,000 Operations at Rated Voltage / Current	
SSR Drive	> 4.2 VDC into 1KOhm Minimum	
DC Linear	Voltage : 0-5 V, 0-10 V (into 1KOhm Minimum) Current : 0-20 mA, 4-20 mA (into 500 Ohm Maximum)	
<b>Serial Communication</b>		
Port	RS485, 2-wire, Half Duplex, Start-Stop Synchronized	
Protocol	Modbus RTU	
Baud Rate	Settable : 4800, 9600, 19200, 38400, 57600	
Parity	Settable : None, Even, Odd	
Max. Units per Loop	31	
Max. Distance	1200 Metres	
<b>Power Supply</b>		
Type	Switch Mode (SMPS)	
Line Voltage	Standard : 85~264 VAC, 50/60Hz Optional : 18~36 VDC	
Consumption	5VA Max	
<b>Physical</b>		
Mounting	Plug-in with Panel Mounting Clamps	
Overall Dimensions	96(H) X 96(W) X 100(D), mm	
Panel Cutout	92(H) X 92(W), mm	
Terminals	Screw Type	
Weight	400 gm, Appx.	

Environmental	
Operating Ambient	0~55°C & 5~95%RH Non-condensing
Storage Temperature	-10 to +70 °C
EMC Standards	EN50081-2 & EN 50082-2 Generic Stds for Industrial Environment
Safety Standards	Meets EN61010, Installation Catagory II
Atmospheres	Not Suitable for use in Corrosive or Explosive Atmospheres. The Panel in which the Instrument is Mounted must be free of Electrically Conductive Pollution.

## Back Panel Terminations



## Ordering Code

Input*		Flow Rate AL-1		Flow Rate AL-2		Total Flow AL-1		Total Flow AL-2		Flow Rate Retrans		Power Supply		Options	
LV	DC Voltage	0	None	0	None	0	None	0	None	0	None	0	85~264 VAC	N	None
LC	DC Current	1	Relay**	1	Relay**	1	Relay**	1	Relay**	3	0-5/10 V			S	Serial Port
		2	SSR**	2	SSR**	2	SSR**	2	SSR**	4	0/4-20 mA				

### Example Code

**LC-1-0-0-0-4-0-S**

DC Current Input, Flow Rate AL-1 Relay, Flow Rate AL-2 None, Total Flow AL-1 None, Total Flow AL-2 None, Flow Rate Retrans 0/4-20mA, 85~264 VAC Supply, Serial Port

- \* Input type is user settable through appropriate jumper settings. The ordering code only implies the factory settings at the time of dispatch.
- \*\* Relay and SSR selection is jumper settable. The ordering code only implies the factory settings at the time of dispatch.