

LIQUID FLOW CONTROLLER



Accumax Instruments Pvt. Ltd.

B-95, Electronic Estate, G.I.D.C., Sector-25, Gandhinagar, Gujarat, India.
382024

Call us: +91 9033520529

Mail: info@accumaxinstruments.com

Web: www.accumaxinstruments.com



1.PRODUCT OVERVIEW:

Accumax offers a complete solution for flow meter devices. It provides accurate, cost effective and contemporary flow measurement and control system for modern industries.

Liquid flow controller has wide applications and works on 5 different modes to achieve high measurement and control operation.

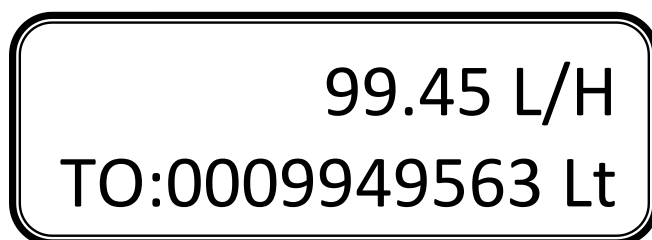
2.KEY FEATURES:

- RS485 Serial communication
- Completes batch even in power interrupt
- External Push-button provision
- Can operate using 5 modes
- A complete flow controller/monitor functionality
- Password-protected settings

3.APPLICATIONS:

- Chemical Industries
- Food & Sugar Industries
- Pharmaceutical Industries
- Textile Industries
- Ceramic Industries
- Paper Mills
- Industrial R.O.
- Water supply schemes
- Sewage treatment Plant

- LCD Display:



4. SOFTWARE SETTINGS

- Switch1 - Menu/Enter/↵
- Switch2 -- Increment/Start/↑
- Switch3 -- Shift/Stop/→
- Switch4 -- Cancel/X

• Password Select Table

Password (XXXX)	Function
1111	Basic configuration

4.1 Mode Select Table

Mode	Function
Totalizer	To Monitor current flow and Totalized
Batcher	To make batch of liquid
Flow comparator	To monitor two flow sensor (Inlet Vs. Outlet) and Alarm on reducing rate of recovery
Rate Switch	To monitor current flow and Alarm on crossing preset threshold level.
Pulsar	To operate specific task on completion of prefix volume. E.g. Dosing application.

4.1.1 Totaliser Mode

- Press $\leftarrow$ for 2 seconds for setting mode
- Press $\uparrow$ to enter number and $\rightarrow$ to shift cursor (Set password 1111)
- Press $\leftarrow$ to Enter



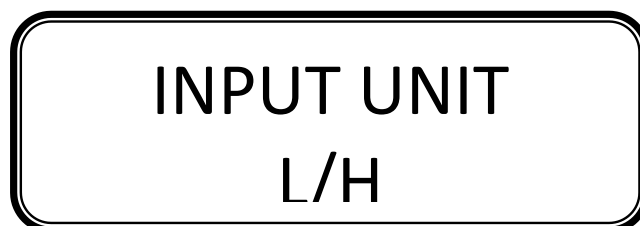
▪ **Mode Select:**

- Press $\uparrow$ to change Mode
- Press $\leftarrow$ to select.



▪ **Select input Unit:**

- Press $\uparrow$ to select Unit
- Press $\leftarrow$ to select.



List of units for selection

✓ L/S	✓ L/M	✓ L/H
✓ M ³ /S	✓ M ³ /M	✓ M ³ /H
✓ KL/S	✓ KL/M	✓ KL/H
✓ KG/S	✓ KG/M	✓ KG/H

▪ **Save changed Setting:**

- Press $\leftarrow$ to accept changes done.
- Press **X** to discard changes.

**4.1.2 Batcher Mode**

- Press $\leftarrow$ for 2 seconds for setting mode
- Press $\uparrow$ to change number and $\rightarrow$ to shift cursor (Set password 1111)
- Press $\leftarrow$ to Enter

▪ **Mode Select:**

- Press $\uparrow$ to change Mode
- Press $\leftarrow$ to select.

MODE SELECTION BATCHER

▪ Select input Unit:

- Press ↑ to select Unit
- Press ↵ to select.

INPUT UNIT
L/H

List of units for selection

✓ L/S	✓ L/M	✓ L/H
✓ M ³ /S	✓ M ³ /M	✓ M ³ /H
✓ KL/S	✓ KL/M	✓ KL/H
✓ KG/S	✓ KG/M	✓ KG/H

▪ Set Limit:

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

SET LIMIT
0003000 Lt

▪ Batch Order:

- Press $\leftarrow$ to select increment order.
- Press **X** to select decrement order.

**▪ Save changed Setting:**

- Press $\leftarrow$ to accept changes done.
- Press **X** to discard changes

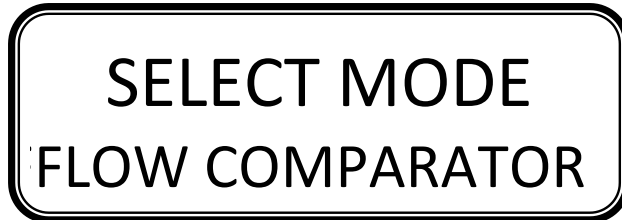
**4.1.3 Flow comparator Mode**

- Press $\leftarrow$ for 2 seconds for setting mode
- Press $\uparrow$ to change number and $\rightarrow$ to shift cursor (Set password 1111)
- Press $\leftarrow$ to Enter

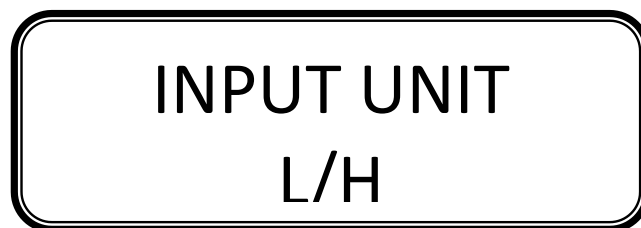


▪ Mode Select:

- Press ↑ to change Mode
- Press ↵ to select.

**▪ Select input Unit:**

- Press ↑ to select Unit
- Press ↵ to select.



List of units for selection

✓ L/S	✓ L/M	✓ L/H
✓ M ³ /S	✓ M ³ /M	✓ M ³ /H
✓ KL/S	✓ KL/M	✓ KL/H
✓ KG/S	✓ KG/M	✓ KG/H

▪ Flow Recovery Percentage:

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

FLOW RECOVERY %
070 %

▪ **Output delay timer (Seconds):**

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

OP DELAY TIMER
0010 SEC

▪ **Relay Energizer:**

- Press ↑ to change option.
- Higher then set: Relay On when recovery rate is high than present.
- Lower then set: Relay On when recovery rate is lower than present.
- Press ↵ to Enter.

RELAY ENERGIZER
HIGHER THEN SET

▪ **Save changed Setting:**

- Press ↵ to accept changes done.
- Press X to discard changes.



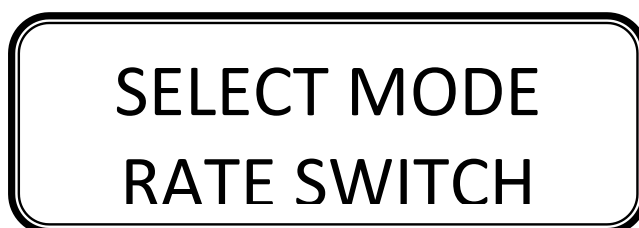
4.1.4 Rate Switch Mode

- Press ↵ for 2 seconds for setting mode
- Press ↑ to change number and → to shift cursor (Set password 1111)
- Press ↵ to Enter



▪ Mode Select:

- Press ↑ to change Mode
- Press ↵ to select.



▪ Select input Unit:

- Press ↑ to select Unit
- Press ↵ to select.

INPUT UNIT

L/H

List of units for selection

✓ L/S	✓ L/M	✓ L/H
✓ M ³ /S	✓ M ³ /M	✓ M ³ /H
✓ KL/S	✓ KL/M	✓ KL/H
✓ KG/S	✓ KG/M	✓ KG/H

▪ RELAY SELECTION MODE

▪ Mode Select:

- Press ↑ to change Mode
- Press ↵ to select.

OUTPUT SELECTION

ONE

▪ Set Cut off flow:

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

SET CUTOFF FLOW

0003000L/H

▪ Relay Energizer:

- Press ↑ to change option.
- Higher then set: Relay On when flow rate is high than present.
- Lower then set: Relay On when flow rate is lower than present.
- Press ↵ to Enter.

RELAY ENERGIZER
HIGHER THEN SET

▪ Save changed Setting:

- Press ↵ to accept changes done.
- Press X to discard changes.

ENTRY COMPLETE
YES NO

▪ Mode Select:

- Press ↑ to change Mode
- Press ↵ to select.

OUTPUT SELECTION
TWO

▪ Set higher flow:

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

SET HIGHER FLOW
0003000 L/H

▪ Set lower flow:

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

SET LOWERFLOW
0002000 L/H

▪ Save changed Setting:

- Press ↵ to accept changes done.
- Press X to discard changes.

ENTRY COMPLETE
YES NO

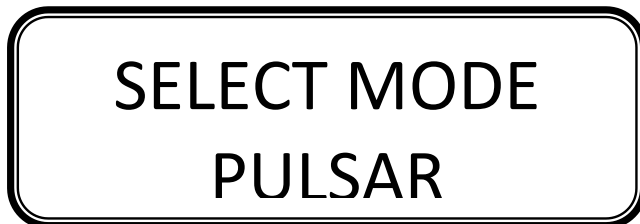
4.1.5 Pulsar Mode

- Press $\leftarrow$ for 2 seconds for setting mode
- Press $\uparrow$ to change number and $\rightarrow$ to shift cursor (Set password 1111)
- Press $\leftarrow$ to Enter



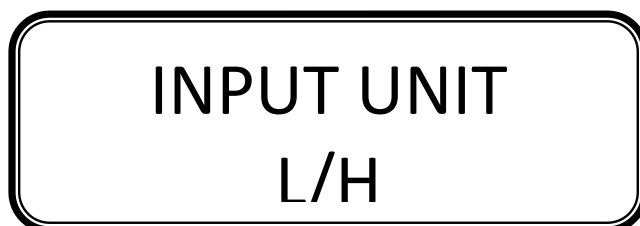
▪ **Mode Select:**

- Press $\uparrow$ to change Mode
- Press $\leftarrow$ to select.



▪ **Select input Unit:**

- Press $\uparrow$ to select Unit
- Press $\leftarrow$ to select.



List of units for selection

✓ L/S	✓ L/M	✓ L/H
✓ M ³ /S	✓ M ³ /M	✓ M ³ /H
✓ KL/S	✓ KL/M	✓ KL/H
✓ KG/S	✓ KG/M	✓ KG/H

▪ **Set Quantity:**

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter

SET QUANTITY
00030.00Lt

▪ **Relay on Time:**

- Press ↑ to change number and → to shift cursor.
- Press ↵ to Enter.

RELAY ON TIME
05 SEC

▪ **Save changed Setting:**

- Press ↵ to accept changes done.
- Press X to discard changes.

ENTRY COMPLETE	
YES	NO

5. HARDWARE CONNECTION:

• 5.1 Version 1.0

P: Phase

N: Neutral

E: Earth

D+: RS485 MODBUS (+)

D-: RS485 MODBUS (-)

START: Push switch for start batch

STOP: Push switch for stop batch

G: common terminal for switch

NO/NC/COM: Relay output terminals

1	2	3	4	5	6	7	8	9
D-	D+					START	G	STOP
MODBUS	INPUT					SWITCH		
CONNECTIONS								
MODEL : Batch Controller (MODBUS RS485)								
SR. NO. : BCMMYY-SR				RANGE : 1 Km				
230V AC				RELAY OUTPUT				
P	N	E				NO	COM	NC
10	11	12	13	14	15	16	17	18

TROUBLESHOOTING

- **No Power:** Check Power cord, Mains supply across P&N
- **No RS485 Data:**
 - a. Check D+ & D- connection,
 - b. Check Device ID & Output Format

For More Information Please Contact ACCUMAX INSTRUMENTS PVT. LTD.

1. STANDARD TESTS

Each finished product is thoroughly checked to establish the product completeness and compliance with the manufacturer's quality assurance standards. Subsequently the product functions are tested according to specifications of the approved test directions and subject to at least 24-hour burn-in operation cycle.

2. CALIBRATION AND VERIFICATION TESTS

The ACCUMAX INSTRUMENTS PVT. LTD. flow meters are supplied from the manufacturing plant calibrated.