INNOVEC
CONTROLS PTY LTD

INNOVEC IBL BATCH CONTROLLER

The **IBL Batch Controller** is an 85 to 265VAC or 12-40VDC powered batch controller for liquids that incorporates a six (6) digit 18mm LCD (liquid crystal) display and integrated backlight. The instrument can be configured from the front touch buttons to batch volumes from 0.001 to 999,999 litres, and K factors from 999,999 to 0.01 can be utilised. The instrument can batch in up or down mode and provide the excitation power supply for the flow sensor.

FEATURES

- Batch in local or remote mode up or down from set point
- Simple touch switch programming with English statement prompts
- Low cost - High performance
- LCD display of 6 characters with 18mm digit height and white LED backlight
- Low flow alarm with batch cancel
- Programmable end of batch signal with an end of batch pulse of 0.0 to 99.9 seconds
- Background total
- Programmable delay on relay two start and pre-stop
- Batch set from front panel in programme mode or in run
- Pulse output per litre
- Automatic over run compensation in whole litres only
- DIP switch selectable input: turbine, reed switch, open collector, Namur & CMOS logic
- Sensor supply that can be adjusted from 8 to 20VDC
- Plug-in screw terminal electrical connections
- K factor 999,999 to .01 and set point 0.001 to 999,999
- 85 to 265VAC 47-63 Hz supply or factory fitted 12 to 40VDC isolated supply
- **Optional clear silicon weatherproof boot to give front panel protection to IP67**

The IBL Batch Controller is an 85 to 265VAC or 12-40VDC powered batch controller for liquids that incorporates a six (6) digit 18mm LCD (liquid crystal display). The instrument can be configured to batch volumes from 0.001 to 999,999 litres and K factors from 999,999 to 0.01. The instrument can batch up or down and provide the excitation power supply for the flow sensor.

The IBL can operate in local manual mode by front panel touch switches for Batch Start, Stop & Resume, or in remote mode as these functions are available for external control.

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TECHNICAL SPECIFICATIONS

INPUT DETAILS

- The instrument accepts an input from 0 to 2KHZ and is DIP switch selectable for open collector, reed, Hall, Namur and turbine signals (from 20mV peak to peak)

	Input Type	sw1	sw2	sw3	sw4	Sw5	sw6	sw7	sw8
A	CMOS Logic Level	Off	Off	Off	Off	On	Off	Off	Off
B	Open Collector or Reed Switch	Off	Off	Off	Off	On	Off	On	Off
C	Namur Proximity [loop supply 8VDC]	Off	Off	On	On	On	Off	Off	Off
D	Reed Switch with Debounce	Off	Off	Off	Off	On	Off	On	On
E	Coil 50mV PP minimum	Off	On	Off	Off	Off	Off	Off	Off
F	Low Impedance Coil 50mV PP min.	On	On	Off	Off	Off	Off	Off	Off

DISPLAY

The IBL incorporates a six (6) digit 18mm digit height (LCD) display with integrated white LED backlight, featuring a wide viewing angle and a viewing distance of 5 metres. The front panel switches are an embossed membrane type with positive action.

PRINTER INTERFACE

The instrument incorporates an optional RS232 serial port to drive a ticket printer with client header, batch total, accumulated total, current time, current date and batch number.

TOTALISER MEMORY

The instrument incorporates a background running total that is stored in eeprom memory during loss of power. This total can be displayed by the front total touch button and reset.

LOW FLOW ALARM

The instrument incorporates a low flow alarm. If no input pulses are received in a pre-programmed period, the low flow output becomes active, the batch is cancelled and LF ERR is displayed.

Environmental Parameters

- 0 to 70°C
- 0-90% RH NON condensing
- Front facia is weatherproof to IP65

Connection Details

Terminal 1: Input Common (-)	Terminal 11: End of batch open collector output
Terminal 2: Input minus (-)	Terminal 12: Relay one normally open contact
Terminal 3: Input plus (+)	Terminal 13: Relay one normally closed contact
Terminal 4: Start	Terminal 14: Relay one common contact
Terminal 5: Stop	Terminal 15: Relay two normally open contact
Terminal 6: Resume	Terminal 16: Relay two normally closed contact
Terminal 7: Reset	Terminal 17: Relay two common contact
Terminal 8: 8 to 20VDC sensor supply	Terminal 18: 85 to 265VAC/24VDC active supply
Terminal 9: Open collector pulse output per litre	Terminal 19: VAC neutral or 0VDC supply (-)
Terminal 10:Low flow alarm open collector output	Terminal 20: Ground supply

POWER SUPPLY

- 85 to 265VAC of 47-63 Hz or DC to DC converter from 12 to 40VDC. An adjustable transducer power supply of 8 to 20VDC at 50mA is incorporated in the instrument.

MOUNTING DETAILS

- Panel mounting extruded aluminium enclosure of 144mm wide by 72mm high by 130mm deep (including pluggable rear terminals) with a panel cut out of 139mm wide by 67mm high
- Explosion-proof version available

APPROVALS

- CE for EMC compliance and electrical safety

RELAY OUTPUTS

- Mechanical relay standard with form C contacts and a contact rating of amperes resistive at 240VAC
- Solid state relays optional with a normally open contact and a contact rating of 2 amperes at 240VAC

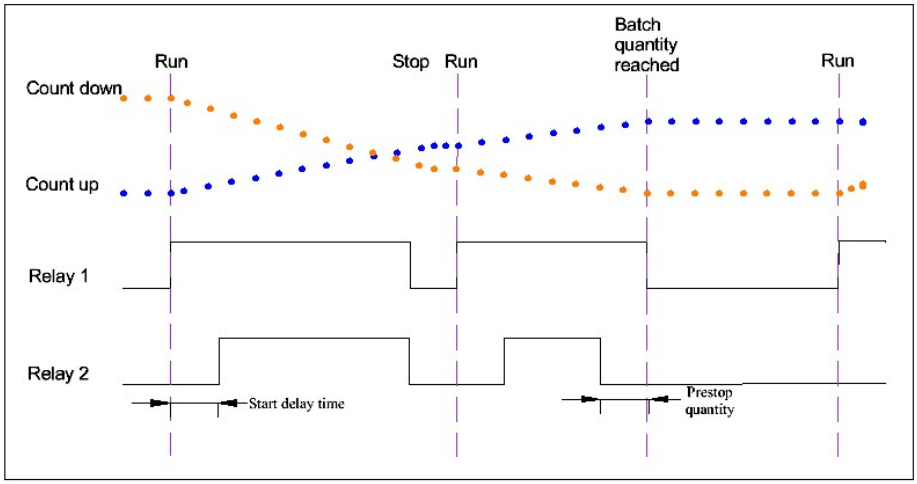

Fig.1 Batcher function diagram

BATCHER OPERATION

Four membrane switches on the front panel allow the batch quantity to be set and batching operations to be started, stopped, resumed and reset.
When the batcher is running the DISPLAY button can be used to show the background total and the BATCH SET button to change the batch quantity.

PERFORMANCE ENHANCEMENTS

The instrument has a universal AC power supply that allows it to be powered from 85 to 265VAC and 47 to 63 Hz.
Alternatively it can be supplied as a DC powered instrument that operates from 12 to 40VDC.

ONE OR TWO STAGE VALVE OPERATION

Two output relays are provided for single or dual stage valve control. Relay One will energise at the start of the batch and de-energise at the end of batch. Relay Two will energise at a programmed delay after batch start and de-energise at a programmed quantity prior to completion of the batch. This function allows a slow start and slow shutdown of the batch operation.

ORDERING INFORMATION

- Model structure: model/input/display/power supply/options
- Sample Number IBL/B/0-999999/VAC

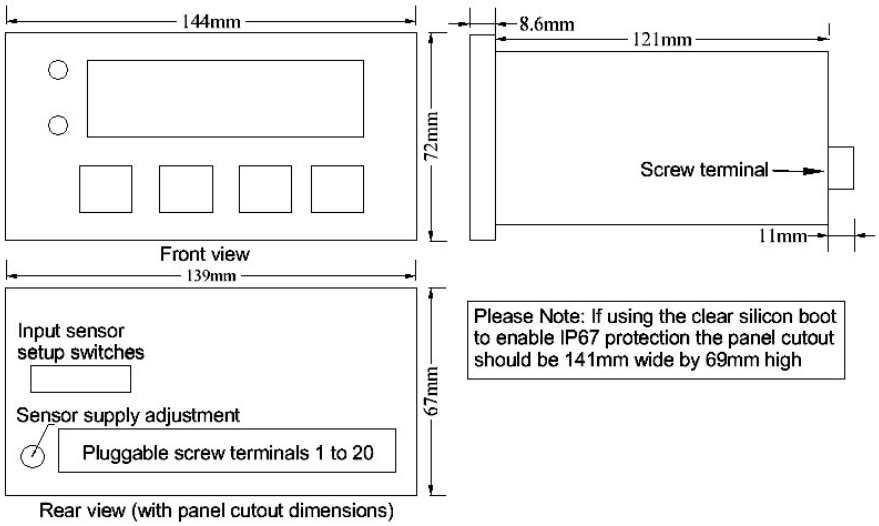

Fig.2 Batcher housing dimensions