

#Contrec 114D display setup

- 2 line digital display with 2x relay outputs
- 24VDC supply
- Takes pulsed input from Flowmeter (Link settable for sinewave (15mV P-P minimum), open collector, reed switch, pulse or Namur proximity switch)
- Programmable to neutralise batch overrun

Display has Dual function keys as below

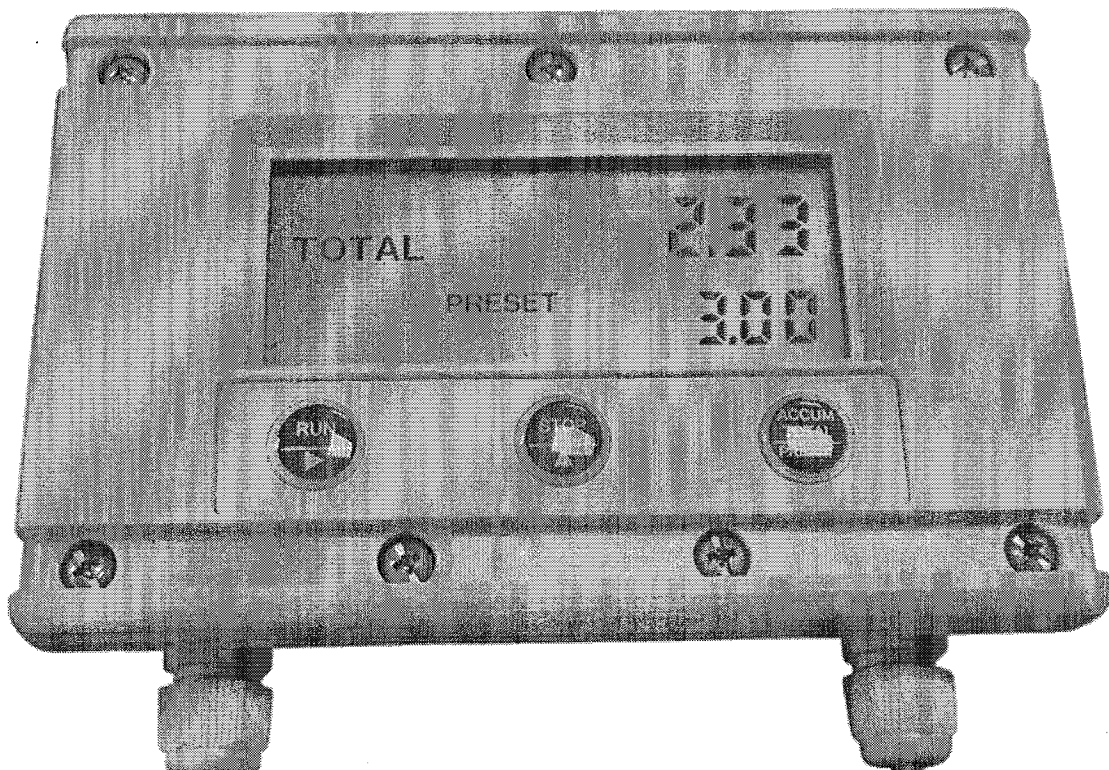
RUN / display move right

STOP / display move up

- To start a batch Press RUN. Batch volume set to zero and flow starts counting
- To Stop before batch is complete Press STOP. PAUSE flashed on screen when stopped
- Press STOP again and batch is aborted

ACCUM/ Preset (batch target)

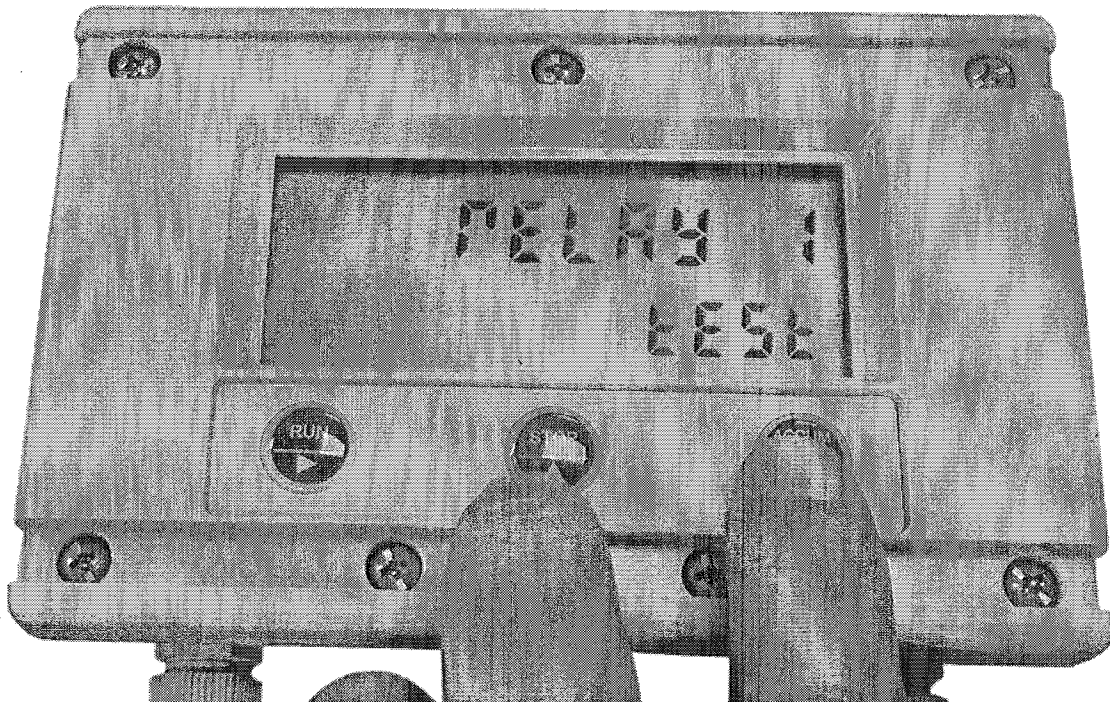
- During batch mode Press ACUM to see total accumulated flow
- Between batches press ACUM to change preset volume (ie Batch target)



To Program parameters remove 2 x plastic decal strips, unscrew 7 x screws, lift from base and display will change to parameter mode

Quick keys

- **MANUAL MODE/ AUTO Mode (=TEST MODE)**
-
- **Switch to Manual run - press STOP then ACCUM**
- **Press and hold RUN key**
 - **Toggle STOP key to change relay 1 to relay 2**
 - - **Press and hold STOP key**
- **Switch back to Automatic - press ACCUM then STOP**



Contract 114 D Presets for pulsed Flowmeter & Solenoid output

12 Programming

4.2 EXAMPLE

A flowmeter produces 20.538 pulses per litre and has a maximum flowrate of 150 litres/minute. It is required to batch quantities in batches of around 300 litres and to alarm if there is no flow once the batch has started.

To increase the accuracy of the batch, a two stage valve will be used and the flow will be slow prior to the end of the batch to enable a more accurate cutoff.

It has also been decided to reduce the flowrate 10 litres prior to the end of the batch. The instrument is then programmed as follows:

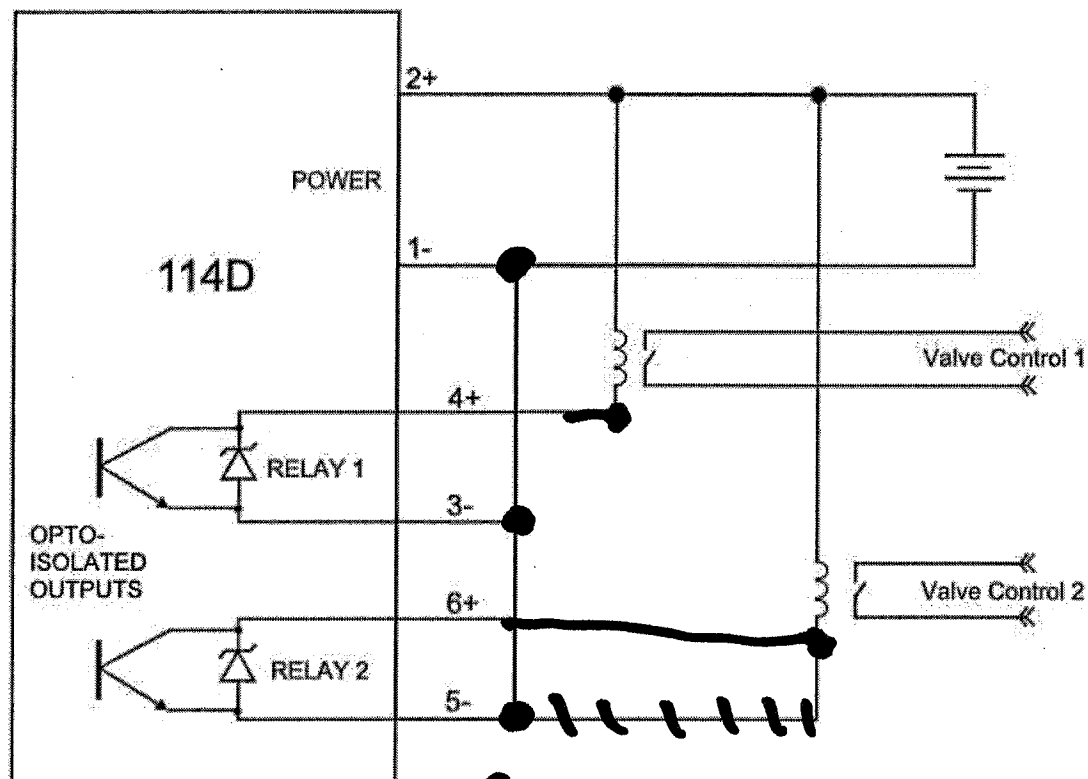
For 9/25

Step	Value of Parameter	Description
CAL 01	00020 00100	Scaling factor (Whole numbers). 00100
CAL 02	5380 0	Scaling factor (Decimals). 0
CAL 03	1 2	One decimal place. 2
CAL 04	1 0	One second delay on full flow to stop pipe hammer.
CAL 05	10 0	10 litre prestop.
CAL 06	2 0	Two second signal timeout.
CAL 07	350 MAX?	350 litre batch limit.
SOFT	1.XX	Software Version.

(Flowmeter has
1 x pulse/10ml.)

No stop over on
solenoid

12 Valve Control & DC Power



Relays with DC Coils

-ve jumper
(not prewired)

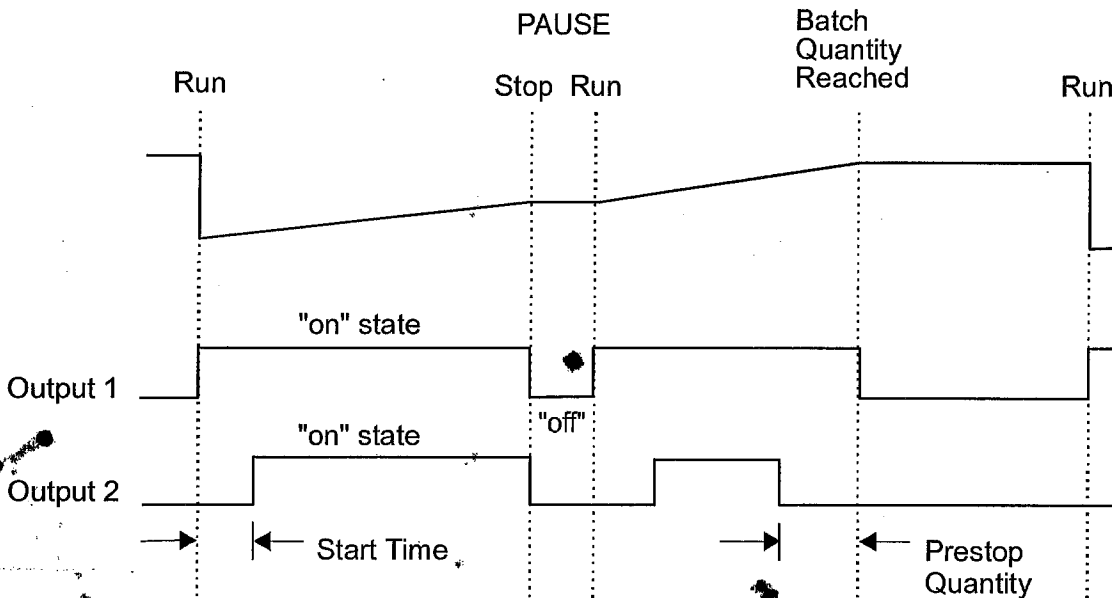
Relay 1 use T2 & T4

Relay 2 use $T_2 = T_6$

8 Operation

3.3 BATCH OPERATIONS

The operation of the Batch Controller is shown below:



Two Stage Valve Control

3.3.1 Control Outputs

The two solid state relay outputs can be set up to control a single valve or a dual valve with slow stop and/or slow start. Alternatively, the second output can be used to control a pump.

The output operation is shown above.

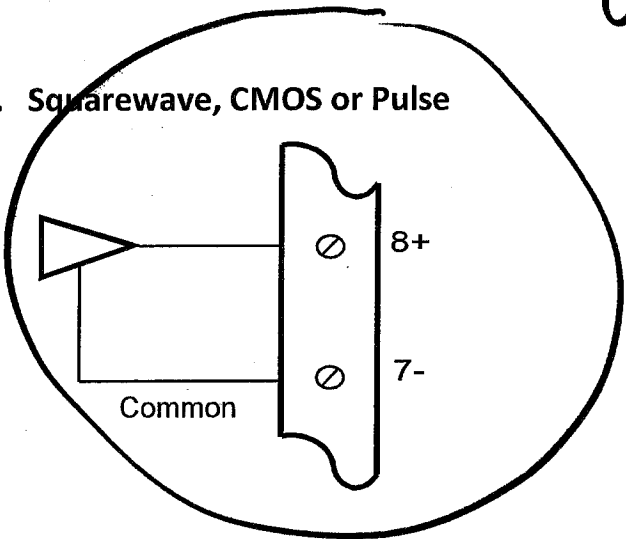
A time delay between the Start and the time when Output 2 switches on can be programmed to provide a soft startup. The delay can range from 0 (no delay) to 9 seconds.

A Pre-stop quantity (ie. the quantity to the end of the batch) can also be programmed to provide a slowdown of flow at the end of the batch, thereby enabling precise quantities to be batched.

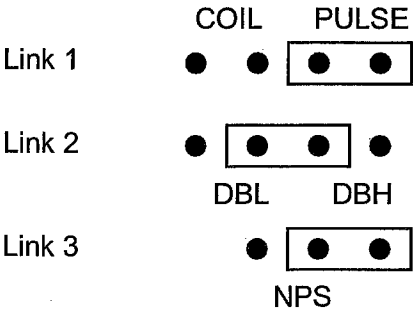
18 Flowmeter Input

Std Pulse Flowmeter

1. Squarewave, CMOS or Pulse



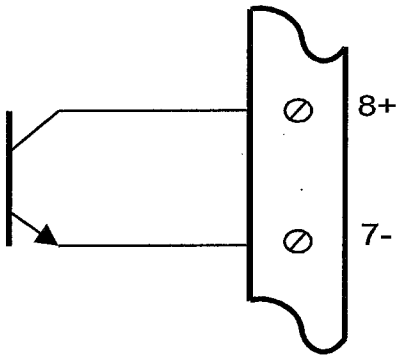
Link Settings



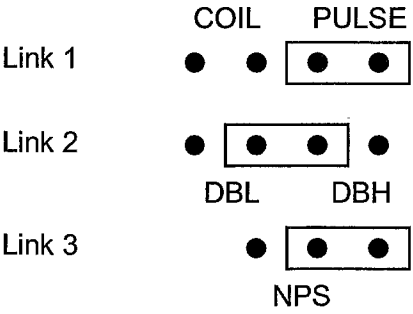
Switching threshold voltage is 1.3 volts.

2. Open Collector

With 15μA/150μA internal pull up current

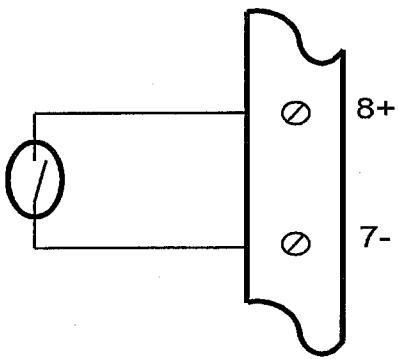


Link Settings



3. Reed Switch - External DC Power

With 150μA internal pull up current



Link Settings

