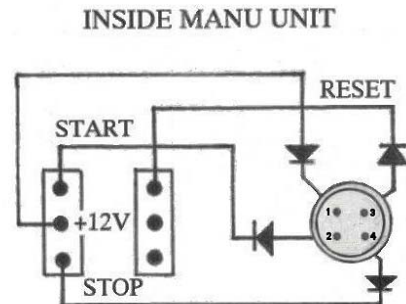
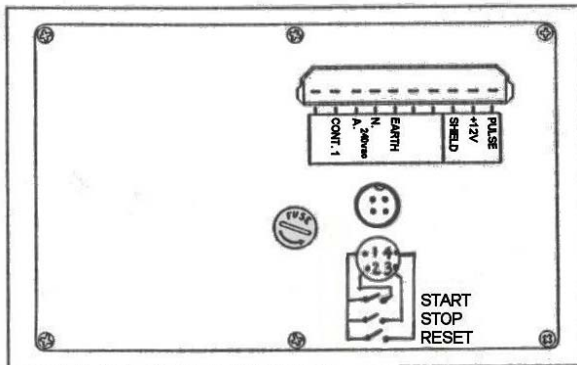


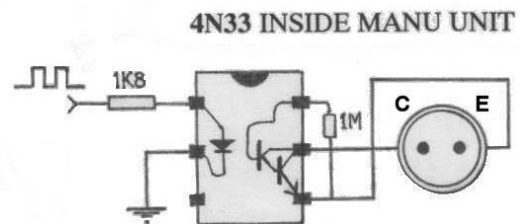
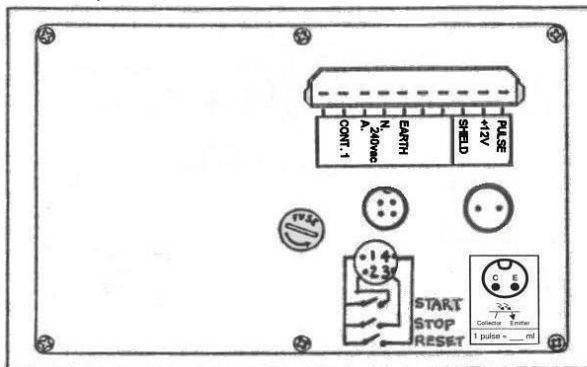
## MC2 - Batch Controller / PLC interface plugs options (suit ME995 / ME188)

The MC-series interface plugs are 2 and/or 4-pin interface socket/plug configurations fitted as an option to ME995 (and previous ME188) Batch Controllers, that provide an interface to PLCs.

The 4-pin plug allows an external PLC to command a Batch Controller (to start/stop/reset the Batch Controller) via a volt-free momentary (minimum 0.5 second) contact that actuates the internal 12 VDC of the Controller's Start/Stop/Reset signal.



The 2-pin plug provides opto-isolated open collector 5-25VDC (maximum 120mA via the internal 4N33 opto) pulse output to the PLC inputs.



### ORDER CODES:

- MC** : 4-pin interface plug: external (volt-free) start/stop/reset command from PLC to Batch Controller.
- MC2** : 2-pin (pulse output) and 4-pin plug (start/stop/reset) interface plugs.
- MC2C** : as for MC2, but pulse output is configured for interface to Compubatch computer.

Note1: Pulse output on the ME995-7 Batch Controller is 1 pulse/1Litre. ME995-7D is 1 pulse/0.1 Litre. All other ME995-1 to ME995-6 models are supplied with the standard 1 pulse/1 millilitre output.

Note2: Pulse output scaling options for ME995-1 to ME995-6 models:  
10, 20, 50, 100 millilitres per pulse  
e.g. order as -S10 for 10 millilitres per pulse.

**Note:** Exact setup and incorporation of safeties varies from different computer suppliers and installers, depending on whether pump drives are wired direct from the PLC or paralleled to the PLC and the Manu Batch Controller or wired to the Manu Batch Controller only.

**Operation:** When a Manu Batch Controller is interfaced with computer systems, a maximum permissible batch quantity must be set on the Manu Batch Controller's selector switches. The Computer will control batch quantities, and will start, stop and reset the Manu Batch Controller for batches that are below the selected maximum. The Manu Batch Controller will energise pump or solenoid starts, thus incorporating a true safety system. This way, in the event of a computer batch program malfunction or flowmeter problem, the Manu Batch Controller will override and stop the system on the occurrence of a pulse fail or when the maximum permissible batch quantity is reached. This is an ideal setup if the computer system does not have missing pulse detection, and provides a backup batch facility and a verification cross reference. Batch Controllers can also be used as set point targets for PLC systems.

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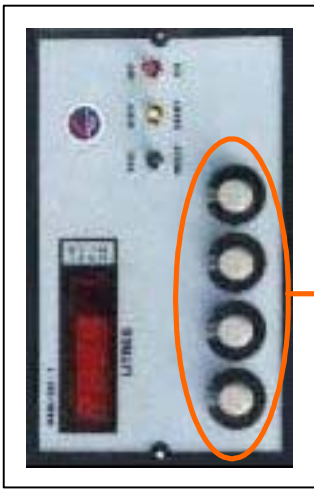
Sydney NSW 2100 Australia

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Fax: + 61 2 9938-5852

ABN: 47-002-946-303

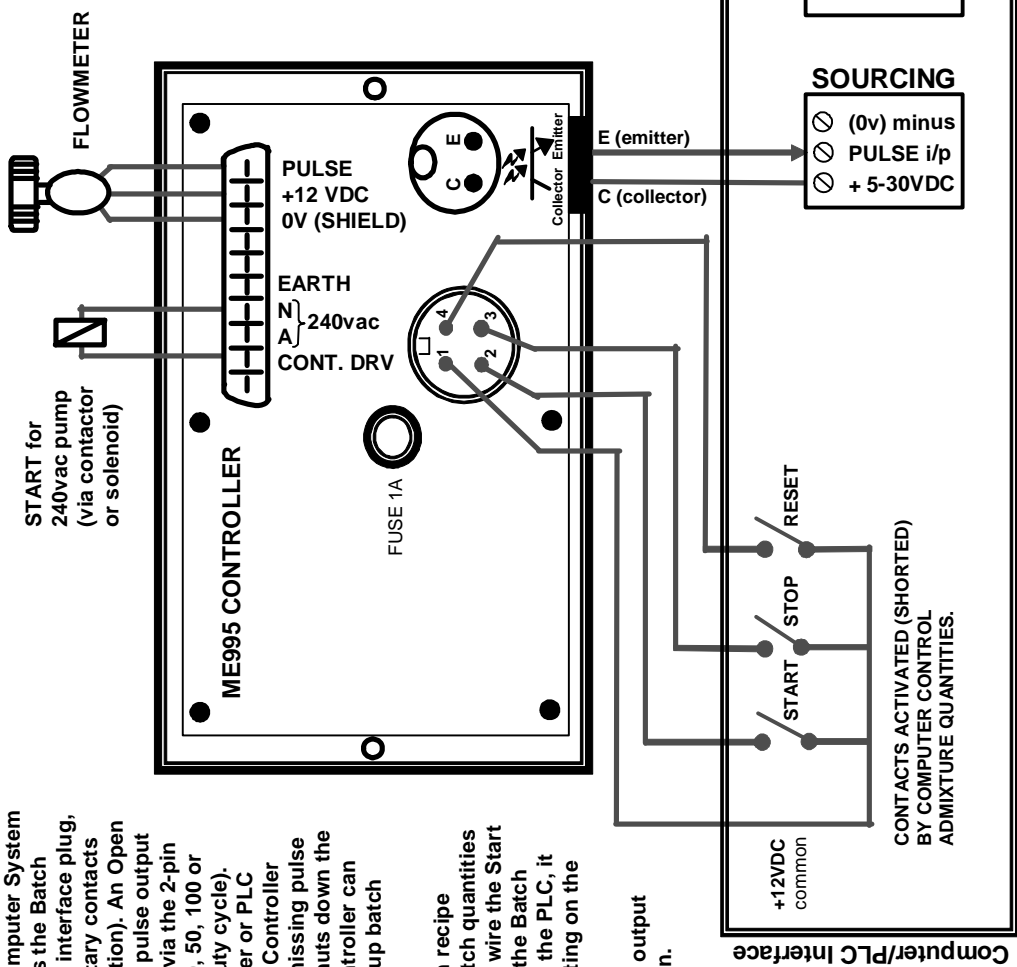
ME995 series Batch Controller



SET ON MAXIMUM QUANTITY WHEN OPERATING IN COMPUTER MODE to set maximum batch limit.

PULSE OUTPUT value is fixed at factory setting of:

- 1 ml
- 10 ml
- 100 ml
- 1 Litre
- 20 mls
- 50 mls



**OPERATION OF BATCH CONTROLLER WITH PLC CONTROLLED SYSTEM**

A maximum batch limit is set using the front selector switches of the Batch Controller. The PLC/Computer System starts, stops and resets the Batch Controller via the 4-pin interface plug, using volt-free momentary contacts (minimum 0.5 sec duration). An Open Collector opto-isolated pulse output is provided to the PLC via the 2-pin plug (fixed value 10, 20, 50, 100 or 1000 ml/pulse; 50% duty cycle). In the event of flowmeter or PLC malfunction, the Batch Controller overrides through its missing pulse detection safety and shuts down the system. The Batch Controller can also be used as a backup batch facility.

If the PLC has no batch recipe software control (or batch quantities are repeatable), simply wire the Start and Reset lines. When the Batch Controller is started by the PLC, it will batch up to the setting on the front dials.

Note: An alarm contact output is available as an option.

WIRING DIAGRAM: ME995 Batch Controller and Computer Batching System.