

# ME995-3

## VARIABLE DOSERATE KILOGRAMS OF CEMENT - **MILLILITRES** PRESET CONTROLLER (+ ME995-3H High Doserate version)

### FEATURES

- 5-digit LED Display.
- 4x LED status indicators.
- Variable doserate selection, via rotary dials.
- Batch quantity in kilograms of cement, set via rotary dials.
- LCD Display shows the dose in millilitres.
- Preact function and preset maximum limit.
- Missing pulse detection.
- Optional PLC and computer interface.
- Interchangeable with earlier ME188 models



The **ME995-3** and **ME995-3H** VARIABLE DOSERATE preset batch controllers are used for dosing admixtures to comply with quality assurance requirements for the concrete additives industry. They incorporate a standard preact (overflow deduct) feature and contact drive LED indicator. The most significant new feature is that the display reads in total millilitres dispensed, instead of total pre-dosed KGs (as in ME995-3K model). Also, the preact function which compensates for excessive overflows is ideal in speed batching operations and in many cases eliminates the need for solenoid valves.

With the ME995 batch controllers using the same 10-pin Weidmuller receptacle plug as the previous models, changeover and replacement is instant with no rewiring necessary. Interfacing an ME995 to PLCs incorporates its safety features and the ME995 can then be used as a set point controller or as a easy to use stand-alone backup batch controller facility.

The **ME995-3** calculates and dispenses selected dosage ratios for the batch operator. The top two selectors are for dosage selection of liquid admixture content, marked DOSAGE MLS x 10 / 100 KG. A maximum doserate of 99 x 10 MLS / 100 KGs of cement is selectable. The bottom four selectors are used for selection of cement content per truck load. A maximum of 9000 KILOGRAMS OF CEMENT load is selectable in minimum increments of 10. The display counts upwards in 10 millilitre increments and dosed at the preselected doserate and displays the total millilitres dispensed at the end of batch.

A batch example would be: Selected dosage rate 25 x 10mls/100 KG = 250mls/100 KG  
Selected cement content 1500 KILOGRAMS OF CEMENT  
Actual admixture volume received 250 mls x 15\*(100 kg) = 3750 millilitres.  
Final batch complete display reading is 3750 millilitres.

The **ME995-3H** model calculates and dispenses in the same way, except that a higher doserate is selectable via the extra doserate selector knob fitted. A maximum of 900 x10mls/100 KGs can be selected.

The controller operates from standard 220 - 260 vac (or optional 110 vac or 12 - 24 VDC) voltage supply. **This must be specified when ordering.** Contact output drive is via one, or optionally two, relays. Standard controllers are in panel mount format or are optionally housed in a metal housing box or IP65 ABS wall mount enclosure.

This controller can only be used with Manu MES20, AMM - 1 millilitre per 1 pulse flowmeters. (or any 1000ppl device)

## SAFETY FEATURES

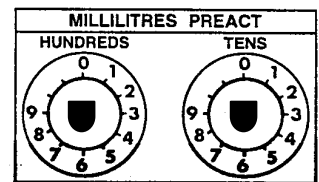
ME995-3

- \* CONTACT DRIVE (CD) LED indicates voltage contact output drive when pump or solenoid are activated.
- \* FLOW (FL) LED monitors and indicates incoming pulses from field flowmeter, or if TEST is used.
- \* PULSE FAIL (PF) LED activates if no pulses arrive within 1.5 seconds (variable) initial start time period, or if pulses are interrupted or intermittent during batch cycle and fall below (variable) pulse scanning time (typical 30 Hz). The voltage contact drive is subsequently automatically shut off.
- \* LIMIT (LM) LED illuminates if the batch cycle reaches the locked internal maximum limit (upto 9000kg) or if circuit diagnostics detect an internal chip problem. The voltage contact drive is subsequently automatically shut off.
- \* Audible ALARM sounds momentarily upon completion of batch cycle, and continuously if PULSE FAIL or LIMIT LEDs are activated, or if overflow runs 1000 millilitres (variable) past selected batch quantity.
- \* **Warning: if CONTACT or FLOW LED indicators are on, but controller is not counting, discontinue use and call for service.**

## OPERATING INSTRUCTIONS

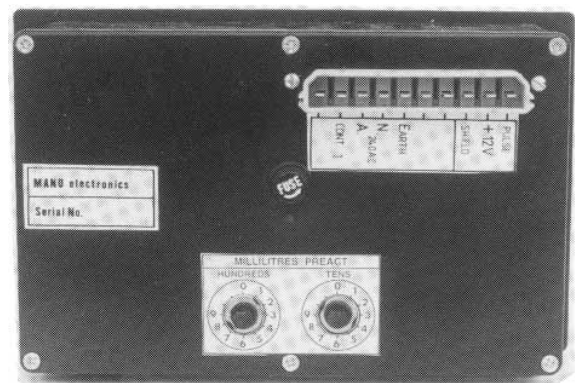
- \* To operate, push toggle switches marked ON-OFF, START-STOP, TEST-RESET to desired function.
- \* Switch power ON to unit. Select desired dose rate and cement load batch quantity using rotary numbered selector switches.
- \* Reset unit. Display reads zero and all LED indicators and alarm sounds turn off. Unit is ready for batching.
- \* START unit; voltage contact drive activates. CONTACT DRIVE LED turns on indicating pump or solenoid is energised, followed by FLOW LED illuminating, indicating pulsing and operation of flowmeter. The digits begin counting upward in total millilitres of dose.
- \* Upon batch completion, alarm sounds (short beep) indicating completion of batch; CONTACT DRIVE and FLOW LEDs turn off. The display digits should correspond to the total dose required for the batch quantity according to the selected dose rate. If display digits overshoot target, use PRACT (inflight) overflow deduct dials (located at rear of controller) to scale back the difference.
- \* To interrupt unit before completion of batch, push the STOP toggle; digit counting then stops. Push the START toggle to resume the batch.
- \* The TEST toggle is used to test digit counting, switch contacts, alarm conditions or generate output pulses for computer interfacing. TEST does not activate pump or solenoid.

**PRACT: Calibrating inflight overflow deduct** is via two rotary knobs marked "tens" and "hundreds" of millilitres located at rear. Simply set to the same overflow value as deduced from the LED display (which is a true indication of overflow quantity), or to the same overflow quantity as collected in your calibrated verification vessel. The Preact feature is ideal in situations where speed batching is required.



## SPECIFICATIONS

<b>Power supply</b>	220-260 vac 50-60Hz (optional 24vac 110 vac or 12-24 VDC)
<b>Output to flowmeter</b>	12 VDC upto 100mA
<b>Relay outputs</b>	Max. 240 VAC, 30 VDC 1 Amp
<b>Frequency input</b>	5 KHz. maximum, NPN input (fixed 1ml./count)
<b>Display</b>	5 digits, 7 segment LED (14mm H)
<b>Connection</b>	10 pin mating plug & socket
<b>Fuse</b>	1 Amp (5 x 20mm case)
<b>Mounting</b>	Panel mount
<b>Batch selection</b>	Visual rotary select switches
<b>Batch commands</b>	Push toggle switches
<b>Instrument housing</b>	ABS hi-impact mould
<b>External dimensions</b>	206 L, 130 H, 90 D mm
<b>Panel cutout</b>	190 L, 122 H mm
<b>Weight</b>	1 kg



*Due to continuous product improvement, specifications are subject to change without notice.*




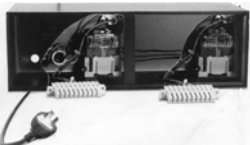

**ME995-3** Batch Controller, 240 vac supply and output, with 12 VDC power to flowmeter (standard).

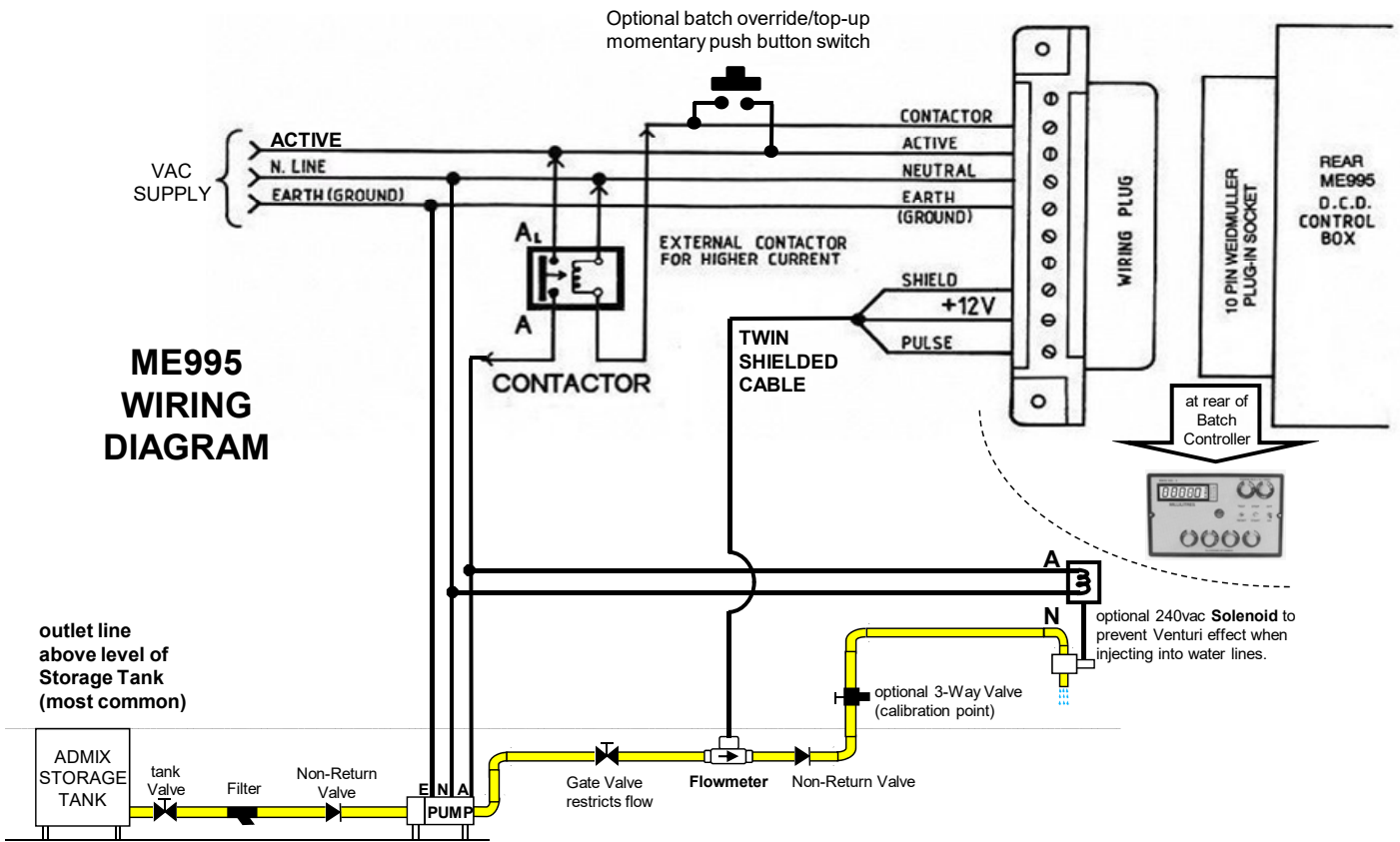
**Options:**

Code	Description	Code	Description
<b>-DC-OC</b>	12-24 VDC power supply input/output drive, with Open Contact output drive (5 A) which is via external voltages	<b>-5P</b>	5-pin computer interface plug (start, stop, reset, pulse,+12V) for use with ME51C interface card for <b>Jonel, COMMANDbatch etc PLCs.</b>
<b>-24VAC</b>	24 vac powered and output.	<b>-MC</b>	4-pin PLC/Computer Command (Start/Stop/Reset) interface plug.
<b>-110</b>	110 vac powered and output.	<b>-MC2</b>	<ul style="list-style-type: none"> <li>• 2-pin plug for scaled 4N33 open collector pulse output (1 pulse/ 1 ml.).</li> <li>• Includes 4-pin external command (Start/Stop/Reset) interface plug.</li> </ul>
<b>-Sn</b>	Combined with MC2 or MC2-C, for 10, 20, 50 or 100 ml / pulse output (where 'n' is the pulse value required i.e. 10, 20, 50 or 100).	<b>-MC2-C</b>	<b>Compubatch interface:</b> 2-pin plug with OPTO 4N33 pulse output. Includes 4-pin external command (Start/Stop/Reset) plug.
<b>-OC</b>	Open Contact pump/valve output, for use with any driving voltage (maximum 5A current).	<b>-SSRBC</b>	External command: Start/Stop/Reset, for connection to HB2500-SSR housing box, or for remote control facility.
<b>-A0</b>	Contact output: alarm/batch-complete voltage relay or logic state	<b>-S12</b>	switch: two product changeover output drive. Allows 2 flowmeter-inputs/pump-drives.

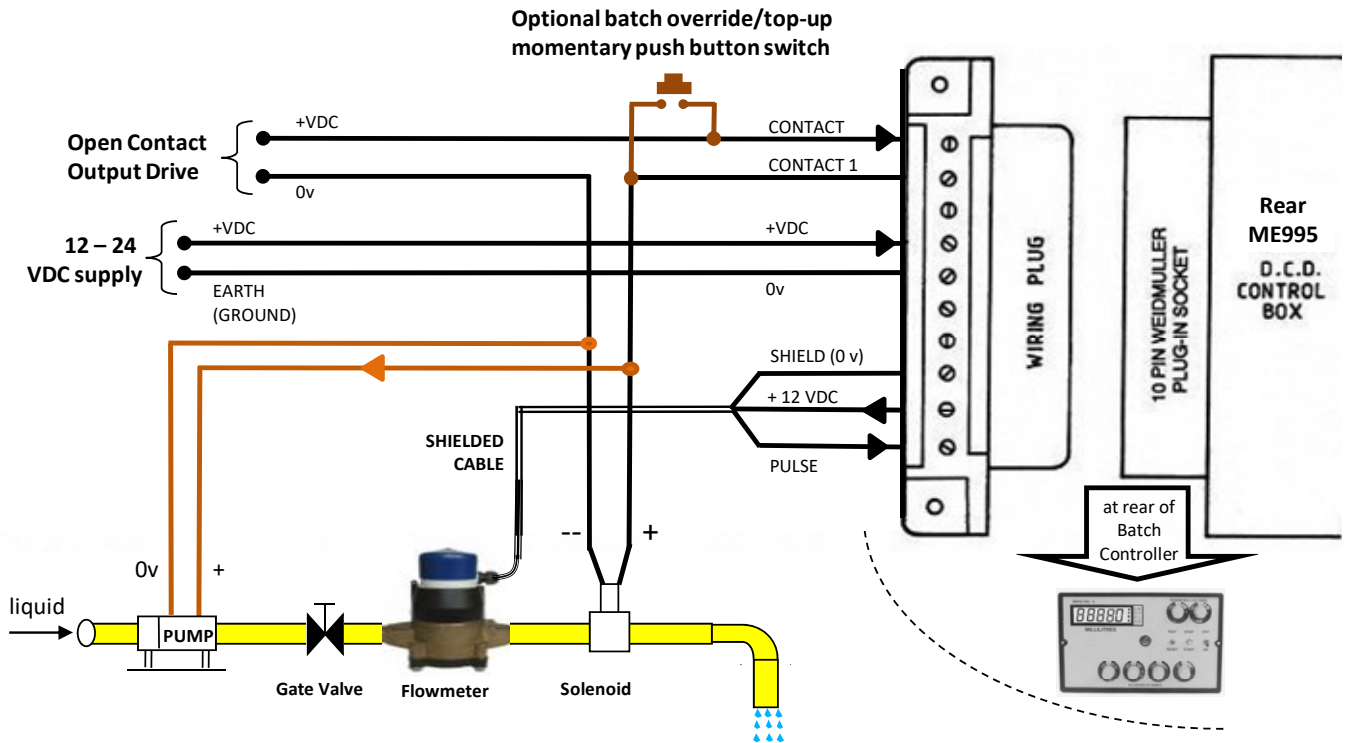
e.g. "ME995-3" is the standard Batch Controller, 240vac powered, without any of the options, whereas "ME995-3-MC2" is an ME995-3 Batch Controller with a scaled open collector pulse output, and a Start/Stop/Reset computer interface.

**HOUSING ENCLOSURES**

<b>SHB</b>	Single enclosure. Powder coated metal.		
<b>SHB1</b>	Single enclosure. Powder coated metal. Wired with 240vac contactor (for 1 hp pump), plug-in 240 vac pump outlet and plug.	<i>SHB</i>	<i>SHB1</i>
<b>SHB1-T</b>	as for SHB1 above, but with terminal wiring entry connection instead of 240vac pump outlet		
<b>DHB</b>	Dual enclosure. Powder coated metal.		
<b>DHB2</b>	Dual enclosure. Powder coated metal. Wired with 2x 240vac contactors, 2x pump outlets, and 2x plugs for Batch Controllers.	<i>DHB</i>	<i>DHB2</i>
<b>DHB2-T</b>	as for DHB2, but with terminal wiring entry connections (instead of mains lead and pump outlets).		
<b>HB2510</b>	IP65 waterproof single enclosure.		<i>HB2510-SSR IP65 enclosure shown with ME3000 Batch Controller</i>
<b>-SSR</b>	External commands: Start/Stop/Reset. IP65 rated (option fitted to HB2510).		



**Standard AC Wiring for Pump and optional Solenoid**



**Wiring for DC-powered Batch Controller with DC Open Contact Output Drive to Pump and/or Solenoid**

NOTE: if current draw of solenoid is > 0.5 Amps, or if using a pump, then install a contactor