

ME995-2C VARIABLE DOSERATE PRESET CONTROLLER

(+ ME995-2CH High Doserate version)

FEATURES

- * Variable doserate selection in cubic metres
- * Display indication in selected predosed cubic metres of concrete
- * LED display with status indicators
- * Preact function
- * Preset maximum limit
- * Missing pulse detection
- * Optional PLC/computer interface
- * Interchangeable with earlier ME188 models



The **ME995-2C** and **ME995-2CH** VARIABLE DOSERATE CUBIC METRES preset batch controllers comply with quality assurance requirements for the concrete additives industry. They incorporate a preact (overflow deduct) feature, allowing speed batching of admixtures with near no overrun.

The display counting is indicated in total Cubic Metres load selected, and dispensed at the selected doserate per cubic metre. With its rotary selector knobs and push toggle switches, command operations are user friendly. The batch operator has important visual indication of the batch quantity selected, as shown on the numbered selector dials.

With the ME995-2C being of the same dimensions and using the 10-pin Weidmuller receptacle plug as previous models, replacement or upgrade is instant, with no re-wiring required. Interfacing the ME995-2C with PLCs is an easy procedure, to incorporate the safety features of the Manu controller which is also effectively a backup preset batch facility.

The **ME995-2C** calculates selected dosage rates for the batch operator. The two top selector knobs are for dosage selection of liquid admixture to be dispensed, marked DOSAGE MLS x 10/ CUBIC METRE. A maximum doserate of 99 x 10 mls per Cubic Metre is selectable. The two or three bottom selectors are used for selection of CUBIC METRE concrete quantity. Maximum load is 9.0 CUBIC METRES (minimum is 0.1). The LED display digits count upward to the selected load in cubic metres, while dispensing the selected dosage rate ratio.

The **ME995-2CH** 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 x 10 mls /Cubic Metre can be selected.

NOTE: Usually an internal maximum doserate safety limit is fixed at time of order e.g. 200x10/m3 max. selection.

Any doserate set above this will trigger the LIMIT alarm and stop operation.

A batch example would be: Selected dosage rate 22 x 10 mls/cubic metre
Selected Cubic metre cement load of 5.5 cubic metres
Actual admixture volume received 220 mls x 5.5 = 1210 millilitres.
Display counts upward in 0.1 Cubic metre increments to set point of final 5.5

The controller operates from a standard 220 - 260 vac (or optional 110vac or 12-24VDC) voltage supply. Contact output drive is via one or optional two relays. Standard controllers are in panel mount format or optionally housed in a metal housing box.

These controllers can only be used with Manu MES20, AMM15, AMM20 1 millilitre per 1 pulse flowmeters.

SAFETY FEATURES

ME995-2C (-2CH)

- * 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 are received 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 30Hz) with subsequent automatic shutoff of voltage contact drive to pump or solenoid.
- * LIMIT (LM) LED illuminates if batch cycle reaches preset internal maximum limit, or if circuit diagnostics detect internal CMOS problem, with subsequent automatic voltage contact drive shutoff.
- * Audible ALARM sounds momentarily upon completion of batch cycle, and continuous if PULSE FAIL or LIMIT LEDs are activated or if overflow exceeds 1000 millilitres past selected batch quantity.

Warning: If CD or FL LED indicators are on, but controller is not counting, discontinue use and call for service.

OPERATING INSTRUCTIONS

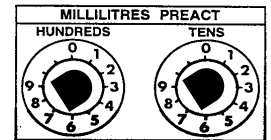
- * To operate push (up or down) toggle switches marked ON-OFF, START-STOP, TEST-RESET to desired function.
- * Switch power ON to unit. Select desired doserate and batch quantity using the rotary numbered selector switches.
- * RESET unit. Display digits zero and all LED indicators and alarm sounds turn off. Unit is ready for batching.
- * START unit; voltage contact drive activates. CONTACT DRIVE LED on indicates energised pump or solenoid, followed by FLOW LED illuminating, indicating pulsing and operation of flowmeter. The digits begin counting upward towards the selected batch quantity.
- * Upon display digits reaching selected batch quantity, alarm sounds (short beep) indicating completion of batch; CONTACT DRIVE and FLOW LEDs turn off. Display digits and selected batch quantity should correspond. If display digits overshoot target, use PREACT (inflight) overflow deduct dials (located at rear of controller) to set preact value.
- * To interrupt unit before completion of batch, push STOP toggle. Push START toggle to resume or complete batch.
- * TEST toggle is used to test digit counting, switch contacts, alarm conditions or generate output pulses for computer interface testing. TEST does not activate pump or solenoid.

ME995-2C PREACT: With this model, the final batch display will indicate total cubic metres.

A calculation must be performed to convert the overrun displayed in cubic metres to actual millilitres quantity for selection of preact knobs. For example, doserate was 27 x 10 mls/Cubic Metre, and the total cubic metre load selected was 5.4. The display will count up to the 5.4 cubic metres selected, batching the selected doserate ratio. But say the display overran to 5.7 cubic metres (0.3 cubic metres over).

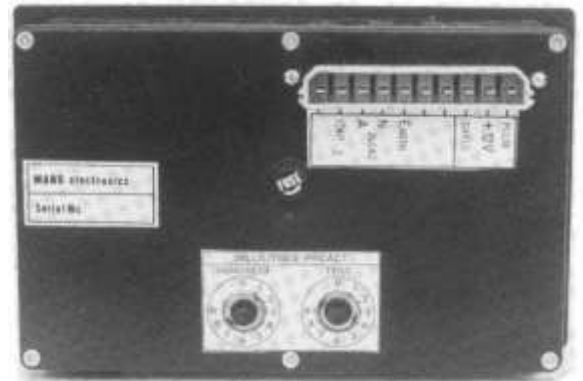
Therefore, the calculation is:

270 mls X 0.3 = 81 millilitres overflow quantity, now set the two preact knobs located at rear of controller to hundreds=0 & tens=8 (80 millilitres).



SPECIFICATIONS

| | |
|----------------------------|---|
| Power supply | 220-260 vac (optional 24vac, 110 vac or 12-24 VDC) 50-60Hz. |
| Output to flowmeter | 12 VDC upto 100mA |
| Relay outputs | Max. 240 vac, 30 VDC 1 Amp |
| Frequency input | 5 KHz max. NPN input (Fixed input 1ml/1pulse flow meters only) |
| Display | 2 digits, 7 segment LED (14mm H) |
| Connection | 10-pin Weidmuller mating plug & socket |
| Fuse | 1 Amp (5 x 20mm case) |
| Mounting | Panel mount (2 screws) |
| Batch selection | Visual rotary select switches |
| Batch commands | Push lever toggle switches |
| Instrument housing | ABS hi-impact mould case |
| External dimensions | 206 L, 130 H, 90 D mm |
| Panel cutout | 190 L, 122 H mm |
| Weight | 1 kg |



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

ME995-2C Batch Controller, 240 vac supply and output, with 12 VDC power to flowmeter (standard).



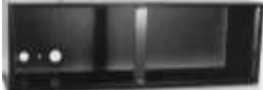


ME995-2CH As above but extra doserate knob for selection to 900x10mls/m3 (can be limited to e.g. 200x10mls).

Options:

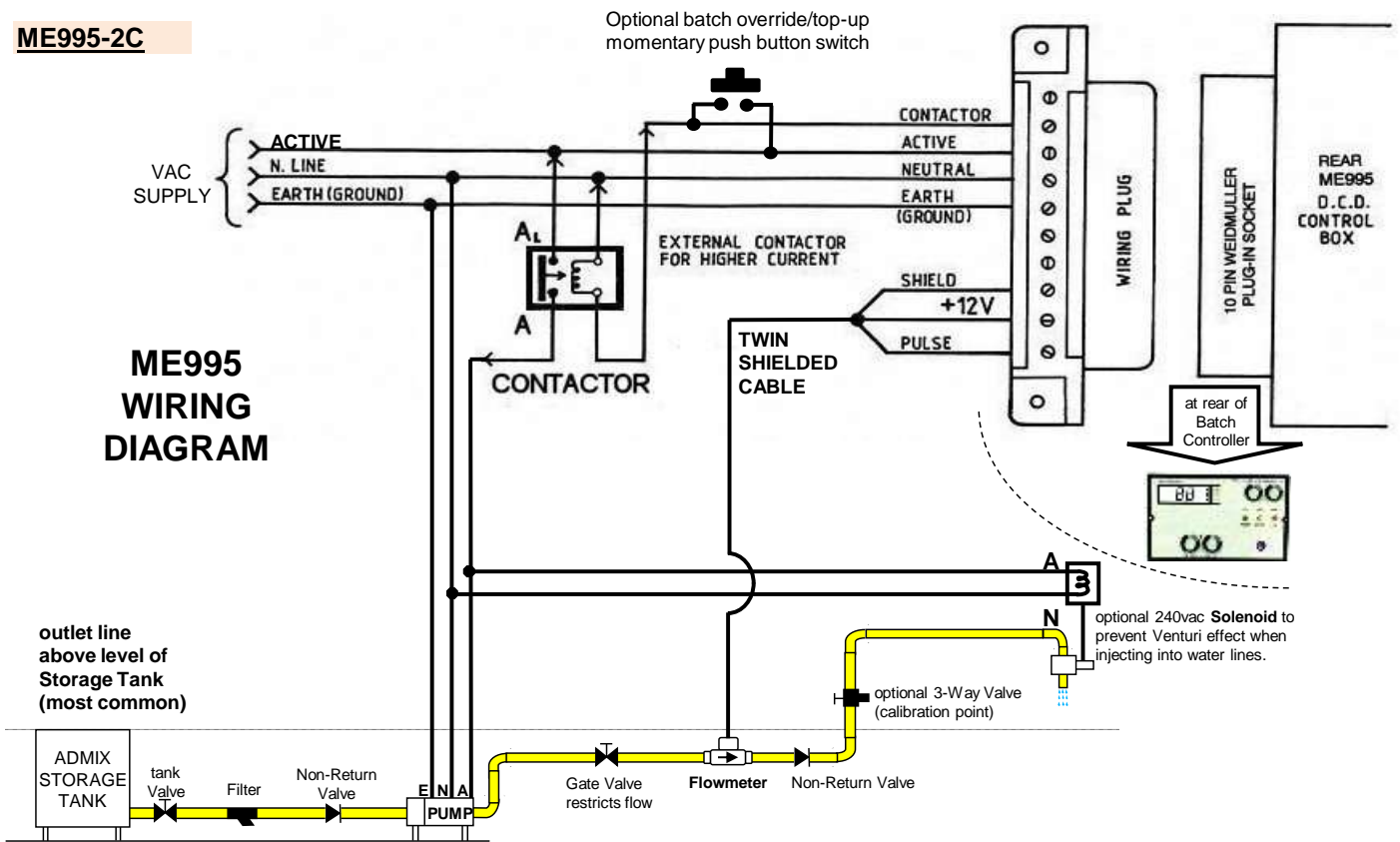
| Code | Description | Code | Description |
|---------------|---|---------------|---|
| -DC-OC | 12-24 VDC power supply input/output drive, with Open Contact output drive (5 A) which is via external voltages | -5P | 5-pin computer interface plug (start, stop, reset, pulse,+12V) for use with ME5IC interface card for Jonel, COMMANDbatch etc PLCs. |
| -24VAC | 24 vac powered and output. | -MC | 4-pin PLC/Computer Command (Start/Stop/Reset) interface plug. |
| -110 | 110 vac powered and output. | -MC2 | <ul style="list-style-type: none"> • 2-pin plug for scaled 4N33 open collector pulse output (1 pulse/ 1ml.). • Includes 4-pin external command (Start/Stop/Reset) interface plug. |
| -Sn | 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). | -MC2-C | Compubatch interface: 2-pin plug with OPTO 4N33 pulse output. Includes 4-pin external command (Start/Stop/Reset) plug. |
| -OC | Open Contact pump/valve output, for use with any driving voltage (maximum 5A current). | -SSRBC | External command: Start/Stop/Reset, for connection to HB2500-SSR housing box, or for remote control facility. |
| -A0 | Contact output: alarm/batch-complete voltage relay or logic state | -S12 | switch: two product changeover output drive. Allows 2 flowmeter-inputs/pump-drives. |

e.g. "ME995-2C" is the standard Batch Controller, 240vac powered, without any of the options, whereas "ME995-2C-MC2" is an ME995-2C Batch Controller with a scaled open collector pulse output, and a Start/Stop/Reset computer interface.

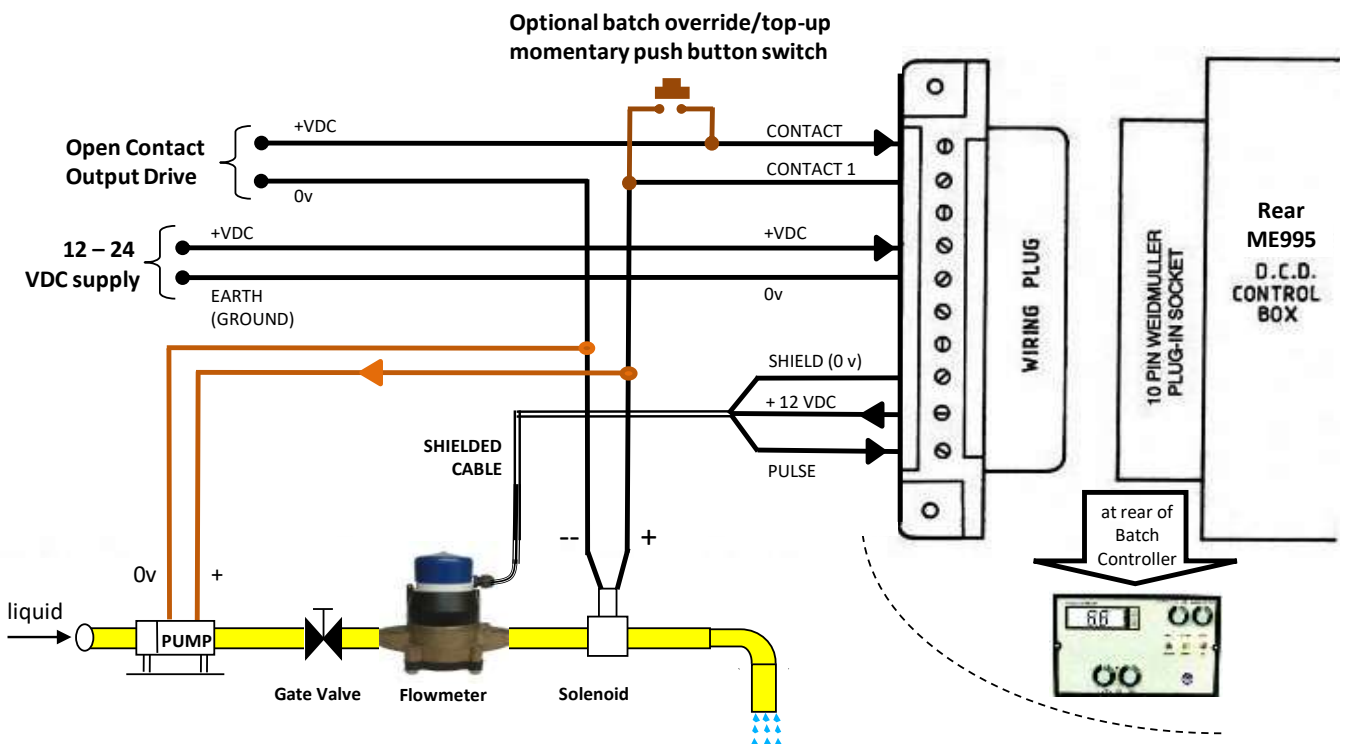
HOUSING ENCLOSURES

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

ME995-2C



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