ME995-3K VARIABLE DOSERATE KILOGRAMS OF CEMENT PRESET CONTROLLER

(+ ME995-3KH High Doserate version)

FEATURES

- **4 Digit LED display**
- **4 x LED status indicators**
- **Variable doserate selection**
- **Display counts in total kilograms of cement**
- **Preact function & preset maximum limit**
- **Missing pulse detection**
- **Optional PLC & computer interface**
- **Interchangeable with earlier ME188 models**

The **ME995-3K** and **ME995-3KH** VARIABLE DOSERATE preset batch controllers, with new added features complying with Quality Assurance requirements for the concrete additives industry. The controllers incorporate as standard a preact (overflow deduct) feature and a contact drive LED indicator. The most significant new feature is the preact function which compensates for excessive overflows, ideal in speed batching operations and in many cases elimates the need for solenoid valves. With the ME995 batch controllers using the same 10-pin Weidmuller recepticle plug as the previous models, changeover and replacement is instant with no rewiring necessary. Interfacing with PLCs is an easy proceedure (with optional interface fitted), to incorporate safety features and to provide a backup batch facility.

The **ME995-3K** is a ratio blending controller which calculates and dispenses selected 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 kg lots, dispensing the fluid at the selected doserate up to the target of batch quantity of kilograms of cement selected.

A batch example would be: Selected dosage rate 25 x 10ml/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 1500 kgs

The **ME995-3KH** model calculates and dispenses in the same way, except 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 supplies (this must be specified when ordering). Contact output drive is via one, or optional two, relays. Standard controllers are in panel mount format or can be 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 other 1000ppl flowmeter)

SAFETY FEATURES — ME995-3K (-3KH)

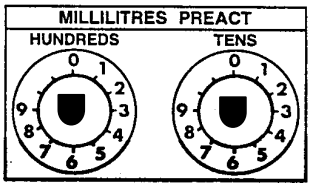
* CONTACT DRIVE (CD) LED indicates voltage contact output drive when pump or solenoid are activated.
* FLOW (FL) LED monitors and indicates incoming pulses from field flowmeter, or if TEST is used.
* PULSE FAIL (PF) LED activates if no pulses arrive within 1.5 seconds (variable) initial start time period, 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 batch cycle reaches locked internal maximum limit (upto 9000 kg) or if the 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 contoller 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 doserate and cement load batch quantity using rotary numbered selector switches.
* Reset unit. Display shows zero and all LED indicators and alarm sounds turn off. Unit is ready for batching.
* START unit; voltage contact drive activates. CONTACT DRIVE LED goes on, indicating pump or solenoid energised, followed by FLOW LED illuminating, indicating pulsing and operation of flowmeter. The digits begin counting upward in total kilograms of cement towards the selected batch quantity.
* Upon 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 scale back difference.
* To interrupt unit before completion of batch, push STOP toggle; digit counting then stops. Push START toggle to resume batch cycle.
* 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.

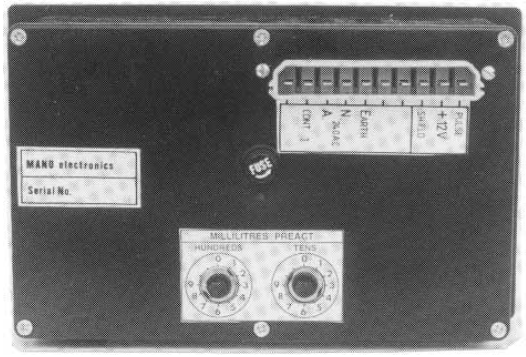
PREACT: Calibrating inflight overflow deduct is via two rotary knobs marked "tens" and "hundreds" of millilitres located at rear. As the batch display will indicate total kilograms of cement at the selected doserate, a calculation must be performed to convert the overrun displayed into actual millilitres overflow. For example, doserate was 27 x 10 mls/100kg, the total kgs cement load selected was 2000kg. The display will count upto the 2000kg but overran to 2060 (60 kgs over at the selected doserate). The following calculation is made:
270 mls x (60/100) = 160 millilitres overflow, simply set the preact to hundred=1 & tens=6 (160 mls.)



Example2: doserate 38 x 10 mls/100kg. Total kgs of cement 3150, overran to 3290kg.
(140 kgs over at the selected doserate). The following calculation is made:
380 mls x (140/100) = 530 millilitres overflow, set the preact to hundreds=5 & tens=3 (530 mls.)

SPECIFICATIONS

Power supply	220-260 vac 50-60Hz.(optional 24vac, 110 vac or 12-24 VDC)
Output to flowmeter	12 VDC upto 100mA
Relay outputs	Max. 240 VAC, 30 VDC 1 Amp
Frequency input	5 KHz. maximum, NPN input Fixed 1ml./1count required (1000ppl)
Display	4 digits, 7 segment LED (14mm H)
Connection	10 pin weidmuller mating plug & socket
Fuse	1 Amp (5 x 20mm case)
Mounting	Panel mount
Batch selection	Visual rotary select switches
Batch commands	Push toggle switches
Instrument housing	ABS hi-impact mould
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.

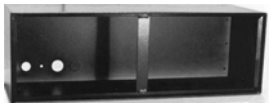
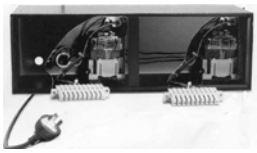
ME995-3K Batch Controller, 240 vac supply and output, with 12 VDC power to flowmeter (standard).

Options:

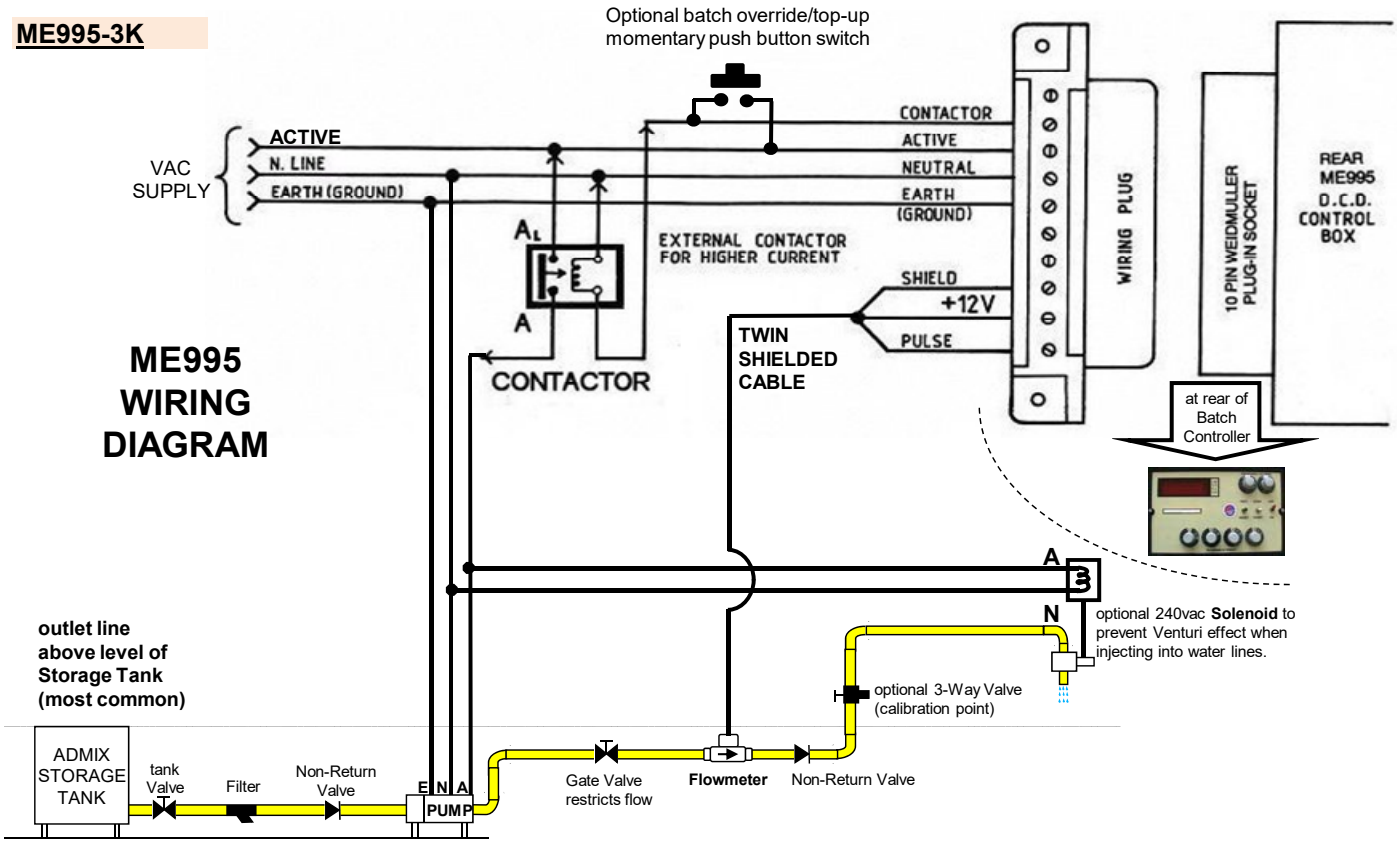
Code	Description	Code	Description
-DC-OC	12-24 VDC power supply input/output drive, with Open Contact output drive (5 A) which is via external voltages	**-5P**	5-pin computer interface plug (start, stop, reset, pulse,+12V) for use with ME5IC interface card for **Jonel, COMMANDbatch etc PLCs**.
-24VAC	24 vac powered and output.	**-MC**	4-pin PLC/Computer Command (Start/Stop/Reset) interface plug.
-110	110 vac powered and output.	**-MC2**	• 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. "ME995-3K" is the standard Batch Controller, 240vac powered, without any of the options, whereas "ME995-3K-MC2" is an ME995-3K Batch Controller with a scaled open collector pulse output, and a Start/Stop/Reset computer interface.

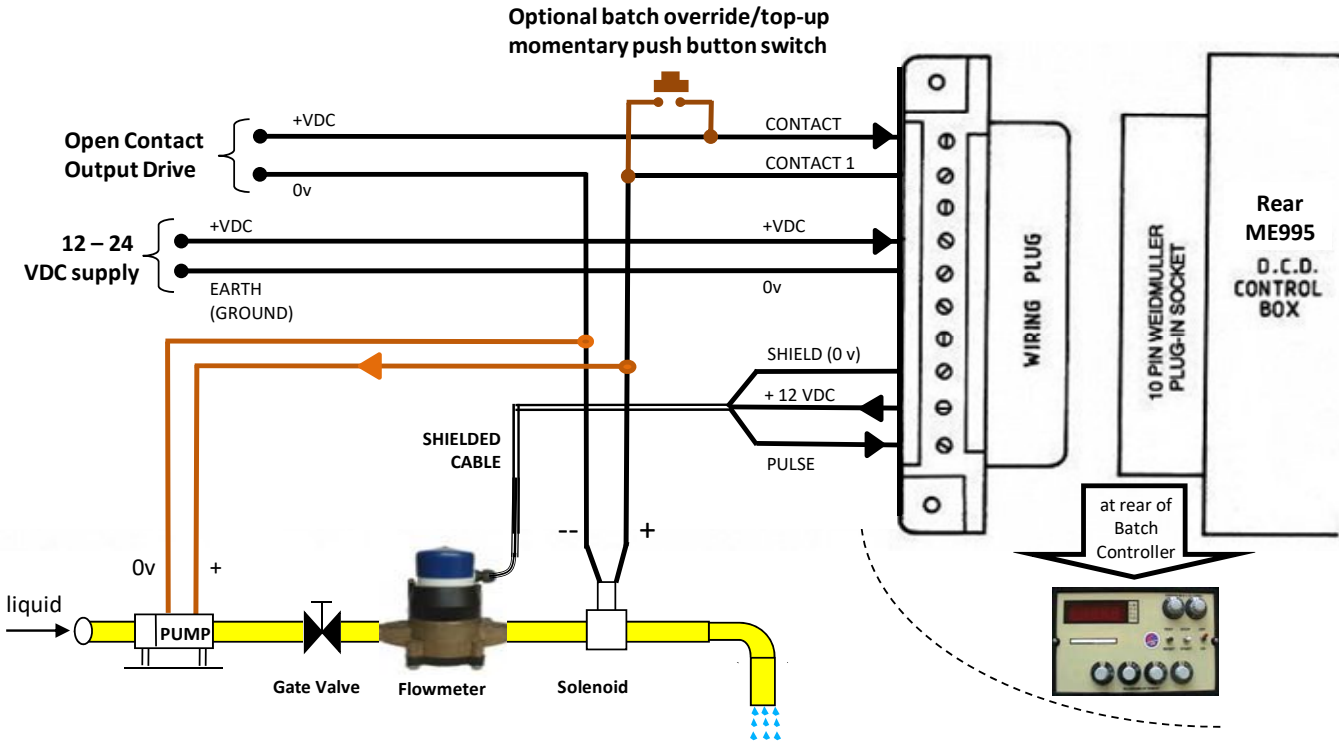
HOUSING ENCLOSURES

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

ME995-3K



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

ManuFlo ®TM
Flow Measurement & Control Products
a division of
MANU ELECTRONICS PTY LTD
Rev: 1502/1

41 Carter Road, Brookvale
Sydney NSW 2100 Australia
Ph: + 61 2 9905-4324, 9938-1425
Fax: + 61 2 9938-5852
Web: www.manuelectronics.com.au
Email: sales@manuelectronics.com.au