

# Admix / Water Flowmeters with PLC / COMPUTER BATCH SYSTEMS via INTERFACE/BATCH PRODUCTS APPLICATIONS PRICE GUIDE

Manu Electronics Pty Ltd, which has for over 30 years been manufacturing liquid batch controllers and pulse output flowmeters, has developed products in accordance with the changing needs of its major users. With the introduction of Computer Batch Systems, Manu batch controllers and Interface Batch Cards can be interfaced with Computers to incorporate safety features into the overall system. Otherwise, interfacing support cards are available for direct interface from flowmeters to PLC/Computer inputs, providing signal and voltage conditioning.

**Our aim is to be able to interface our Batch Controllers, Interface Batch Cards and Flowmeters to any PLC/Computer system through our range of interfacing options. If unsure which interface product is suitable, please telephone, fax or email us for advice. Information we commonly require regarding PLC systems is:**

**i) voltage of I/Os, whether AC or DC, sink or source; ii) input speeds and scanning time; iii) Batch Quantities.**

Following is a listing of present interfacing options with indicative pricing and associated comments.

**FLOWMETERS:**     **Admixtures:**   MES: 20, 25, 32 & 40 mm sizes; MEA15 15mm; Magflows: MFS, RMS, 4, 8, 15, 25, 40, 50 & 80 mm  
                          **Water:** RDFS Rota pulse flow sensor: 20 to 150mm; Magflows: MFS or RMS, 4 to 150 mm; SW turbines: 50 to 150mm

The above flowmeters can all be interfaced to computer systems using the following options:

## **1. ME2000 MICROPROCESSOR INTERFACE SAFETY BATCH CARD**

The ultimate batch safety interface device, incorporating extensive safeties for interfacing between pulse flowmeters and batching Computers/PLCs. Provides from 2 to 6 channels for admixtures/water. For use with most types and sizes of flowmeters.

**See ME2000 Data Sheet for full details** (NOTE: Supersedes ME693, ME697 products).

**Advantages:** Eliminates requirements for sight bottles; latest safety and monitoring features, with display messages to alert users.

## **2. BATCH CONTROLLER ME995 SERIES with FLOWMETERS**

- |     |   |   |
|-----|---|---|
| i)  | for IBM PC compatible systems   | Manu controller with interface plug(s).   |
| ii) | for dedicated USA industrial computers,<br>e.g. Alcon, Eagle, Jonel, Phoenix. | Manu controller with interface plug.<br>ME51C interface card (single channel),<br>has pulse dividers, 240 vac or 5VDC opto pulse. |

Batch Controllers can be fitted with Start/Stop/Reset external commands for PLC control.

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

**Operation:** When Manu controllers are interfaced with computer systems, a maximum permissible batch quantity must be set on the Manu controller's selector switches. Computer will control batch quantities, starting, stopping and resetting Manu controller below the set maximum. The Manu controller should 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 controller will override and stop the batch, through pulse fail detection or at the batch limit - ideal when the computer system does not have missing pulse detection, and provides a backup batch facility and verification cross reference. Controllers can also be used as set point targets for PLC systems.

## **3. FLOWMETERS WITH SUPPORT CARDS ONLY**

- Direct flowmeter pulses into computer inputs, only if signal conditioning and high speed frequency input card is available to computer system with high scanning time (5-25 VDC sinking pulse).  
Suits Opto22 fast switching DC input white case (s/n: IDC5BQ) 4-16 VDC, or similar input.
- PCB** fixed pulse divider card 10, 20, 50, 100 millilitres per pulse (5-12 VDC sinking). MES20 20mm size only.  
Suits Opto22 DC input white case (s/n: IDC5Q) 5-12 VDC, or equivalent input.
- UIC/A2** Iniversal Interface Card with selectable pulse output, with 24-240 vac pulse output TRIAC switching (for most flowmeters).  
Opto22 AC input yellow case (s/n: IAC5Q, IAC5AQ) 110-240 vac or most PLC input types.
- UIC/D** open collector 5-24 VDC 4N33 Opto sink or source pulse with variable pulse scaling.

**Advantages:** Cost efficient option. Very easy to wire and install.  
-PCB, UIC/A and UIC/D interface cards are compatible with many flowmeters.

**Limitations:** No backup batch facility, no independent display verification, no Manu safeties.

**With Manu flowmeter systems, all power supply to flowmeters and pulse signal outputs are low-voltage DC only, making installation safer and more economical than AC pulsed outputs.**

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

**ManuFlo**®™

**Flow Measurement and Control Products**

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