

options and accessories



O'rings



Protective boot



Rotors



MR150

optional - o'rings

Various optional O'Rings are available for the M-SERIES™ range to allow the flowmeters to have maximum flexibility in most applications. For the M05, M1 and M2, both EPDM and FPM Elastomer O'Rings are available. The M4, M6, M7, M10, M40, M50, M80 and M100 are available with FKM, EPDM and FEP O'Rings. FPM = Perfluor Natural Rubber, FKM = Viton® and FEP = PTFE encapsulated.

optional - high temperature rotors

For fluid temperatures above 80°C/176°F and up to 120°C/248°F, select 'high temperature' rotors. This option only applies for PPS rotor models of the M4, M10, M40 and M50. Meters fitted with Stainless Steel rotors are capable of handling temperatures up to 120°C/248°F.

optional - high viscosity rotors

For fluids above 1000cps viscosity, optional high viscosity PPS or stainless steel rotors can be specified for M2, M4, M6, M7, M10, M40, M80 and M100 models. If necessary consult your local distributor for additional technical assistance as the flow rate will vary in accordance with fluid viscosity (See page 46/47).

optional - hall effect sensor

The M4, M7, M10, M40, M50 and M80 pulse models can be optionally fitted with two digital output Hall Effect Switches to eliminate oscillation (pulse bounce) that can be experienced with standard reed switches. M05, M1 & M2 come with hall and reed sensors as standard

The HE Switches are 3-wire solid state open collector devices with 5 - 24-volt DC supply voltage ratings. A common power supply must be used.

optional - hastalloy c shafts

Special Hastalloy C Shafts are available for the M1, M2 and M7 PPS body meters for use with extremely aggressive chemicals.

optional - solvent kit

MECHANICAL DISPLAY METERS ONLY
Mechanical versions of the M4, M10, M40, M50 and M80 aluminium models can be fitted with a special seal kit for use with most common solvents. This kit is standard on all stainless steel mechanical models or mechanical models with SS Rotors.

silicone protection boot

Silicone protection boots are available for when the Deluxe, Standard or Mechanical is used in an aggressive atmosphere. Accessory part number is B400, B500, B600.

accessory - remote mounted LC displays

Supplied with mounting brackets, these displays are for remote mounting and connection to M-SERIES™ pulse meters originally supplied without a display. They can be connected also to the auxiliary pulse output of a local display meter for use as a second remote display. Accessory part numbers are F500 (deluxe version) and G500 (standard version). Available with optional 4-20mA, intrinsically safe and backlight.

optional - MR150 4-20mA loop powered module

MR150 DIGITAL UNIT

- Reed Switch Input
- 4-20mA Output
- Loop Power Device
- Meter or Remote Mount
- Output Pulse (Scaled)
- Hi/Lo Alarm
- Optional PC Calibration (MR120)

P500 pulser kit

Suit Analogue Register
10/100 pulses per unit of measure (Litre or US Gallon). 3 wire device, open collector, 5-12 VDC Power Requirements.

options and accessories

standard LC display

The standard LC Display is available on specific M4, M6, M7, M10, M40, M50, M80, M100 series models. It is also available as an accessory so it can be used as a remote mounted display for any M-SERIES™ meter model supplied without a display e.g. M1, M2, M10ARP.

Features

- 7 Digit x17mm/ 0.67" and 11 Digit x8mm/ 0.31" Liquid Crystal Display.
- Display can be rotated in 90° steps.
- Flow rate display in litres or US gallons (according to model selected).
- 2 total displays - resettable and non-resettable, up to 9999999999.9 litres or US gallons (according to model selected).
- Fully programmable.
- Long life 3.2 volt (7 year) Lithium battery.
- Approved for hazardous locations
EEx ia11B/11C T6 (Kema Ex-00.E.1127x)

deluxe LC display

The Deluxe LC Display is available on specific M4, M6, M7, M10, M40, M50, M80, M100 series models. It is also available as an accessory so it can be used as a remote mounted display for any M-SERIES™ meter model supplied without a display e.g. M1, M2, M10ARP.

Features

- 7 Digit x 12.7mm (1/2") Liquid Crystal Display
- Display can be rotated in 90° steps.
- Selectable flow rate display in litres or US gallons.
- 2 total displays.
- Up to 999999.9 litres or US gallons (resettable).
- Pre-settable batch control function up to 9999 units (99.99, 999.9 or 9999 optional settings).
- 10 preset batch quantity storage capacity.
- 3 digit cycle counter for batch dispensed.
- Single or dual valve actuation output to be used with appropriate trip amplifier.
- Factory set calibration constant (K Factor).
- Additional 9 calibration constants (K Factors) available for "in-the-field" settings.
- Up to 9999999.9 litres or US gallons (non-resettable).
- Switch output for trip amplifier.
- Long Life 3-volt Lithium battery.
- Approved for hazardous locations (standard battery only)
EEx ia IIC T6 (PTB nr. Ex-93.C 4033X).

MR100 Digital Display

- 6 x 12mm Digits
- battery life 2 years
- Grand Total / Reset Total / Batch Total / Rate
- Fully field programmable
- 2 x AAA Alkaline batteries
- Rate Units: sec, min, hr
- IP65 Protection
(Optional PC Programme MR120)

A110 Rate Totaliser

- Liquid Crystal Display
- 7 x 17mm Digits
- 11 x 8mm Digits
- Total / Reset Total / Rate
- 7 Year Battery Life
- Scaled Pulse Output
- 4 – 20mA Analogue Output
- Fully Programmable
- IP65 Protection
- Optional Functions
- Meter or Remote Mount

ER480 heavy duty meter mounted LC display

The ER480 is an aluminium IP65 enclosure designed to take the full range of LC display models for meter mounted applications. The unit is provided with 2 x 16mm and 1 x 20mm or 3 x 1/2" NPT screwed conduit connections. Fitted with the latest easy touch push buttons and large clear viewing window, The outside is protected by a long lasting epoxy finish and has provision for tamperproof sealing.

miscellaneous displays

- Batch Control Units
- Add/Subtract rate totalisers
- Hi/Lo alarm rate totalisers

Options

- Case Materials
- Outputs
- Communications
- Temperature Compensation
- Intrinsically Safe Certifications
- Power Source AC/DC/Battery
- Selectable Input Types
- Backlight (LED Bi-Colour)



Standard LC Display



Deluxe LC Display



MR 100 Display



A110 Rate Totaliser



ER480 heavy duty meter mounted LC display

options and accessories



Mechanical Display

mechanical display - digital

The Mechanical Display is available on specific M4, M10, M40 and M50 Series meter models.

Features

- Litre or US gallon display (according to model selected).
- Two Totals:
 - Non Reset
 - Litre 9,999,990
 - USG 999,999
- Reset
- Litre 9,999USG 999.9
- Push button reset.
- Display can be rotated in 90° steps.

Veeder Root Display

- Reset Total 5 Digits
- Grand Total 8 Digits
- Suitable for M50 to M100 models

Strainer / Air Eliminator

MST11-CA1/MAE21-CA1
Suits M10 to M50 with screwed or flanges connections, 25mm, 40mm & 50mm

MST21-CA1/MAE21-CA1
Suite M80 & M100 with screwed or flanged connections, 80mm & 100mm

meter display specifications

high pulse resolution meters

The following models are available with a high resolution pulse output. Each pulse unit offers two pulse streams and directional signal

| | |
|--------------------|----------------------------------|
| M2 - | 2,000 or 10,000 pulses per litre |
| M4 - | 1,000 pulses per litre. |
| M10, M40, M50, M80 | 100 or 1,000 pulses per litre |
| Power: | 5 - 12VDC |
| Output: | Open Collector |



High Pulse Resolution Meter



Analogue Mechanical Register

analogue mechanical register

is the latest addition to our range of mechanical meters with sweep hand to indicate fluid quantity.

Features

- 156mm Diameter Face – 10/100 Litre or US Gallon Per Needle Revolution.
- Non Reset Register – 9,999,999.9 minimum resolution 0.1
- Reset Register – 9,999
- Optional Pulse Module – 100/1,000 pulses per revolution (10/100 pulses per unit of measure)
- Allows +/- 0.5% or better (of reading) accuracy.
- Rugged construction with toughened glass facia.
- Suitable for M10, M40, M50, M80 and M100 mechanical models.
- See model numbering system for part number identification



MH450 Industrial Mechanical register

MH450 Industrial Mechanical register

- Extra robust design
- Aluminium facia plate with toughened glass exterior
- Aluminium reset knob
- Reset total 4 digits
- Grand total 6 digits
- IP65 Protection
- Suitable for M4 to M100 models



Veeder Root Display



Strainer / Air Eliminator