

FEATURES

- * Nutating wobble disc measurement chamber
- * Small impurities pass chamber without jamming
- * Low hydraulic thrust minimises wear
- * Inbuilt non return valve, 20 & 25mm sizes
- * Sealed IP65 digital display capsule
- * Wide impact resistant glass lens for easy cleaning and quick reading
- * Internal 10yr long life lithium power cell
- * $\pm 1.5\%$ accuracy curve, with 0.2% repeatability
- * Conforms to AS3565-1988, designed to meet AS3901
- * Calibration certificate supplied
- * Simple upgrade to high resolution pulse counter for future automatic batching applications



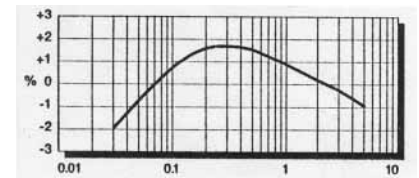
The MESLCD4 series magnetically coupled positive displacement flowmeters incorporate a LCD resetable display counter powered by a 7-10 year internal long life lithium battery. With low to high flowrange performance, the meters are suitable for a wide range of batching and measurement applications for water and water based chemicals. They are ideal in situations where there is no external power supply available, making them totally portable flowmeters. The nutating disc measurement chamber used, provides high reliability and accuracy for measurement of liquids with varying specific gravities and can pass small impurities without blockage to the measuring chamber. The digital display capsule is fully self contained, with wide impact resistant flat glass lens for easy cleaning and quick reading. The display capsule couples to the main meter body by a bayonet turn and lock fitting action. The display can be refitted to four viewing positions. To operate, lift hinged lid, LCD display digits turn on and automatically zeroed and ready for measurement. Display counts in single litres upto 9999 or special decimal point version in increments of 0.1 litres upto 999.9, closing lid resets digits and turns off battery power.

FLOWRANGE DATA	Size mm	20	25	32	40
Start flow @ -5%	Litres/min.	0.6	1.1	1.5	3.0
Minimum flow $\pm 1.5\%$	Litres/min.	1.5	2.7	3.8	7.5
Nominal flow $\pm 1.5\%$	Litres/min.	45	65	125	200
Maximum flow $\pm 1.5\%$	Litres/min.	70	110	180	340

SPECIFICATIONS

Sizes mm	20	25	32	40
Weight (incl. connectors)	2.2 kg	3.5 kg	5.1 kg	11.2 kg
Connection type couplings	¾"(m) bsp	1" (m) bsp	1" (m) bsp	1½" (f)bsp

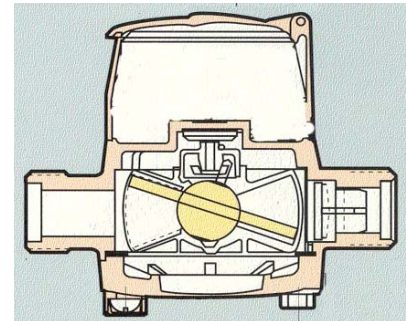
Accuracy range (min-max)	± 1.5 %
Repeatability	± 0.2 %
Headloss at nominal flow	25 kpa (3 m.)
Max. cont. working pressure	1060 kpa
Max. operating temperature	50°c
Power source	3.7v lithium cell (7-10 yrs. life)
Readout	4 digit LCD display in litres (14mm high)
Display options	Litres to 9999 sizes 20, 25, 32 & 40mm (optional 99999 lt.) Dec.pt litres to 999.9, 20 & 25mm only
Display capsule rating	Waterproof to IP65



20mm Accuracy Flow Curve KL./hr.

MATERIAL SPECIFICATIONS

1. Digital display capsule	Polyacetal c/w copper capsule & toughened glass
2. Meter body	Cast gun-metal
3. Strainer & non return valve	Polyacetal
4. Measuring chamber	Synthetic Polymer (Nepton)
5. Chamber O ring	NBR rubber
6. Base sealer ring	NBR rubber
7. Base plate	Nepton-20mm, Gun-metal -25,32,40mm.
8. Base body screws	Stainless steel 316
9. Nut & tail connectors Flanges	Brass -20, 25, 32mm, Galvanised Iron-40mm.
10. Connection washers	Rubber



Measurement internal view

INSTALLATION

1. Readout capsule rated to IP65. Avoid prolonged direct sunlight on LCD display.
2. Flowmeter may be installed in horizontal, vertical or sloping pipelines without affecting accuracy. Ensure arrow on meter body coincides with forward direction of flow.
3. Flush out pipelines thoroughly before connecting flowmeter.
4. Although the flowmeters pass impurities, a filter box or strainer should be fitted prior to meter if fluid to be measured contains excessive impurities and particles. (800 micron filter recommended).
5. Any flow restriction or regulation valve should be fitted preferably before the meter. Quick closing action valves should be avoided (or fitted after the flowmeter) if flowmeter is used for high end flowrates, avoiding sudden closing pressures and hammer.
6. Once installed, flowmeter must measure liquid with full pipe at all times.
7. To avoid damage to measuring chamber, never exceed the rated maximum flow range.
8. To change viewing display angle, push-in locking-pin and turn display capsule anti-clockwise. Lift off capsule and re-position to desired viewing position.

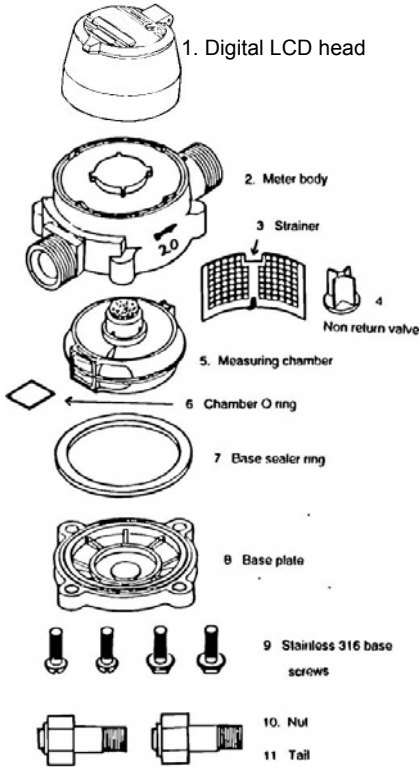
MAINTENANCE

If flow becomes excessively restricted, digits fail to count or meter is out of calibration, proceed as follows:-

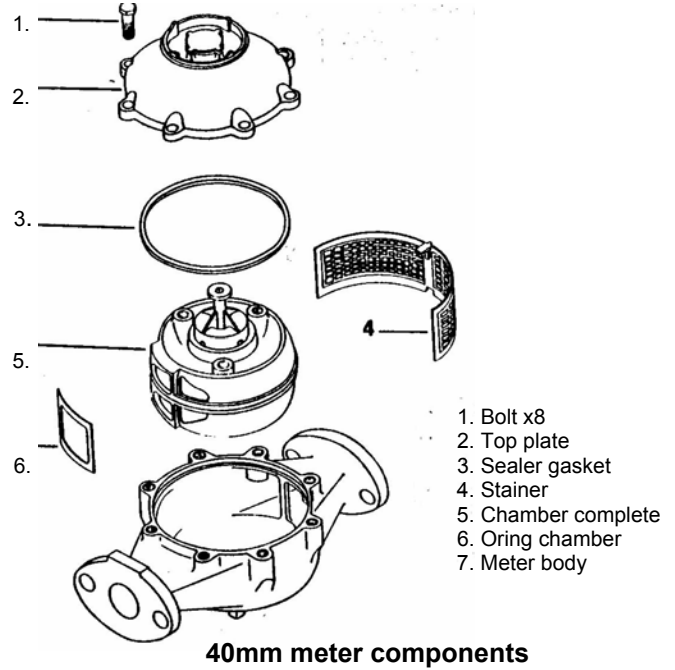
1. Close service gate valve. Holding digital capsule head turn anticlockwise, pull up and remove.
2. To access measuring chamber undo connectors or flanges, rotate meter body (40mm access from top). Unscrew 4 x stainless base screws, remove base plate and base seal ring. Using long nose pliers pry and pull out white strainer screen unlocking measuring chamber assembly, remove chamber and inspect.
3. If required clean chamber parts in warm water or diluted hydrochloric acid. Make sure internal chamber wobble disc roller pin is in place and shutter plate is refitted. Then reassemble meter by repositioning measuring chamber and position locking with strainer plate. Refit other components, seal and test meter.

NOTE: If flowmeter is used with sticky admixtures and runs dry, then flush with water. Otherwise admixture may crystallise and seize chamber parts, necessitating service & cleaning.

MESLCD4 Digital Reset Counter Flowmeters



20, 25 & 32mm meter components



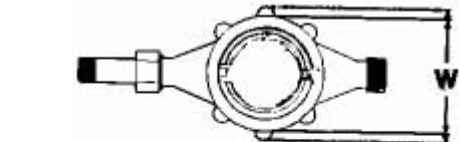
40mm meter components

DIMENSIONS

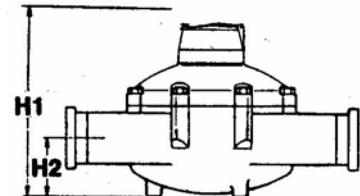
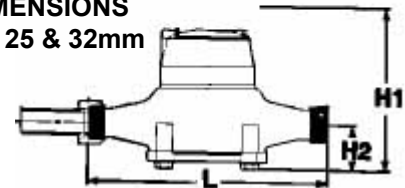
Meter Size	mm	20	25	32	40
Length body end to end	L	154	178	273	330
Length incl. Connectors	L2	241	279	400	430
Overall Height	H1	120	135	200	252
Overall Width	W	97	112	165	205
Height underface to centre	H2	42	46	54	65

ORDERING GUIDE:-

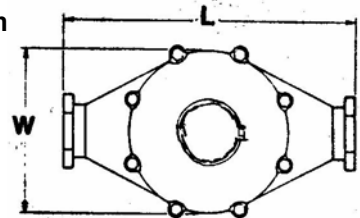
MES20LCD4	20mm Litres to 9999
MES20LCD4DP	20mm Dec.pt Litres to 999.9
MES25LCD4	25mm Litres to 9999
MES25LCD4DP	25mm Dec.pt Litres to 999.9
MES32LCD4	32mm Litres to 9999
MES32LCD5	32mm Litres to 99999
MES4050LCD4	40mm Litres to 9999
MES4050LCD5	40mm Litres to 99999



**DIMENSIONS
20, 25 & 32mm**



40mm



Rev.10/04

ManuFlo™

Flow Measurement Products

A Division of:

MANU ELECTRONICS PTY LTD

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41 Carter Rd Brookvale

Sydney NSW 2100 Australia

Ph: + 61 2 99381425, 99054324

Fax: +61 2 99385852

www.manuelectronics.com.au

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