



BM Positive Displacement Flow Meter



WORKING PRINCIPLE

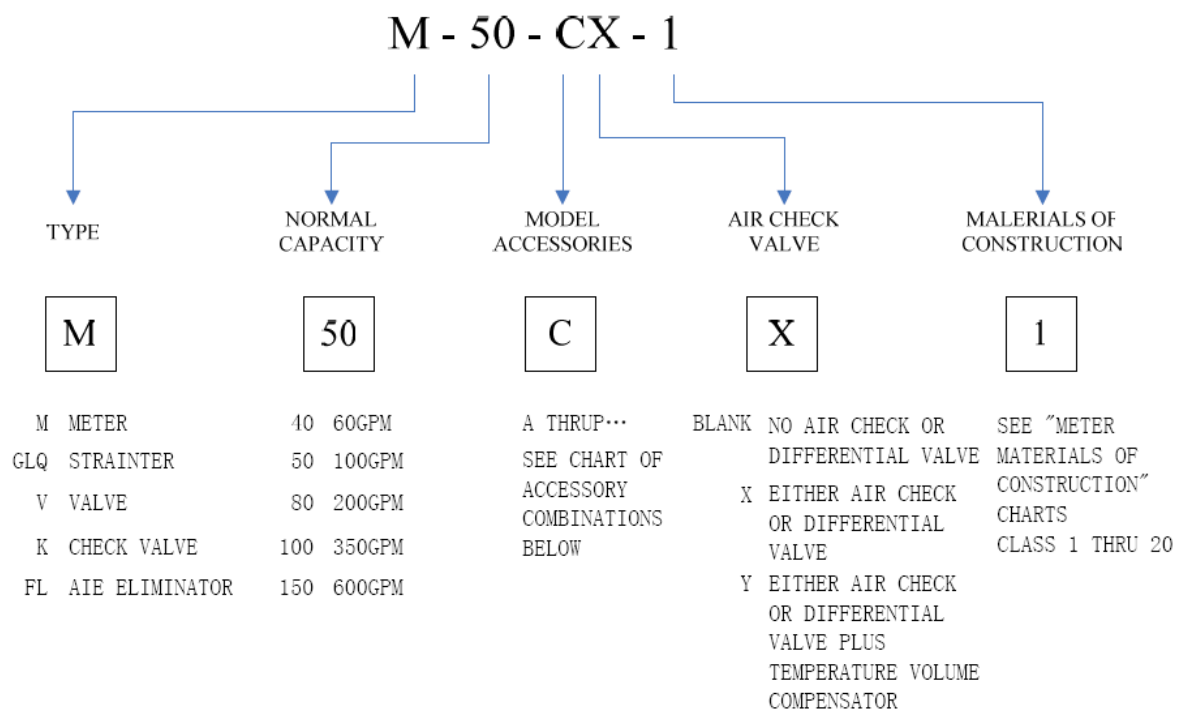
Working principle for the metering body

BM meters are positive displacement meters for liquids. They are designed for liquid metering both in transfer and process control applications. Thanks to their design they are easy to use and can suit a wide range of applications. The meter consists of housing where two displacement rotors and a central single blocking rotor turn in synchronized relationship within three cylindrical bores with no metal-to-metal contact within the chamber. Each rotor is supported on either end by a bearing plate through which the rotor shafts protrude.

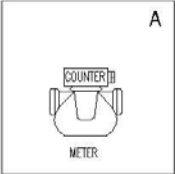
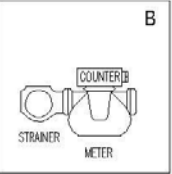
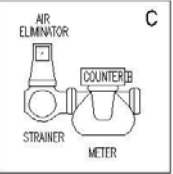
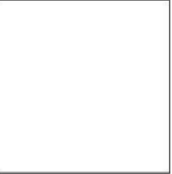
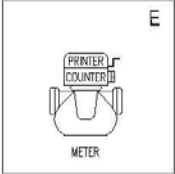
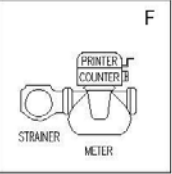
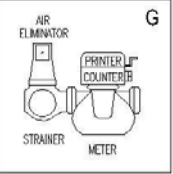
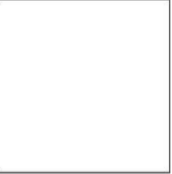
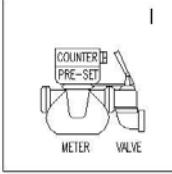
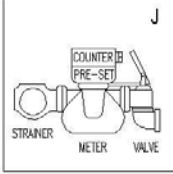
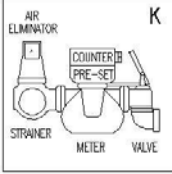
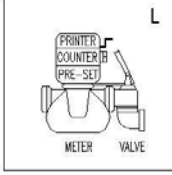
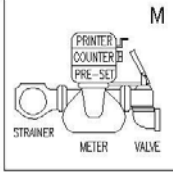
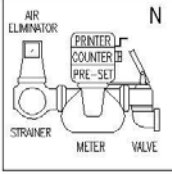
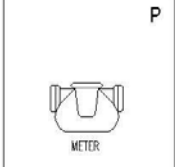
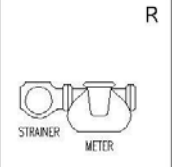
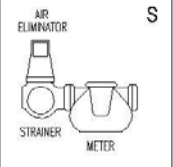
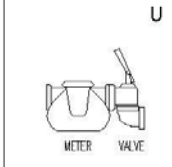
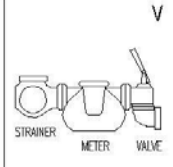
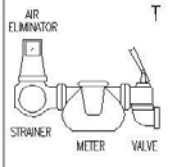
The displacement rotors, alternately move through the two half-cylinder bores of the meter element, while the single blocking rotor rotates within its bore in such a way as to produce a continuous capillary seal between the unmetered upstream product and the metered, downstream product.

At one end of each rotor shaft is a timing gear. The blocking rotor gear, having twice the number of teeth of each of the displacement rotor gears, rotates at half the RPM of the displacement rotors.

MODEL



MODEL ACCESSORIES

| | MODEL ACCESSORIES | | | | | |
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| | NO STRAINER NO AIR ELIMINATOR NO VALVE | STRAINER NO AIR ELIMINATOR NO VALVE | STRAINER AIR ELIMINATOR NO VALVE | NO STRAINER NO AIR ELIMINATOR VALVE | STRAINER NO AIR ELIMINATOR VALVE | STRAINER AIR ELIMINATOR VALVE |
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TYPICAL APPLICATION:

- Check of loading/unloading operations of fuel and petrochemical products in fuel bulk plants and/or refineries
- On truck tanker for fuel/LPG transport and delivery
- Heavy duty fuel dispensing system for big vehicles and airplanes

Typical Application of Aluminum Construction

Class 1 meter: refined petroleum products, such as gasoline, fuel oil, diesel fuel, kerosene, ethylene glycol, motor oils and rotogravure ink.

Class 2 meter: aviation gasoline and jet fuels.

Class 3 meter: a wide variety of products such as: liquid sugars, corn syrup, corn sweeteners, dextrose, fructose, sucrose, maltose, lactose, corn oil, soy bean oil, cotton seed oil, coconut oil, and shortening's etc. rate of flow is based on viscosity to pressure loss relationship.

Class 10 meter: liquefied petroleum gas (LPG) including butane, isobutene, pentane, ethane, freons and propane.

Class 14 meter: crude oil, also for heated and/or viscous liquids including animal's fats, resins, #6 oil and non-abrasive asphalt emulsions.

Class 15 meter: for metering oil or water based latex products, polyester resins, and adhesives (neutral pH). Also available for metering herbicides and nitrogen fertilizer solutions (requires Viton and Teflon seals).

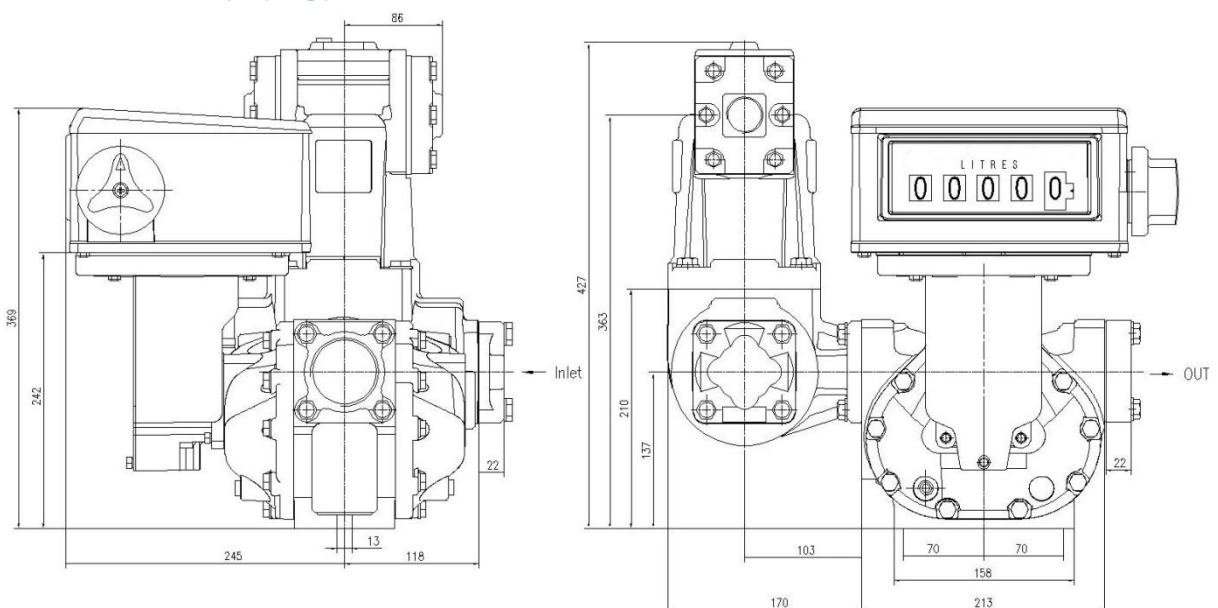
Class 16 meter: for general solvent metering, such as methanol, toluene, xylene, naphtha, acetone, MEK, MIBK, and alcohols including ethanol.

TECHNICAL DATA

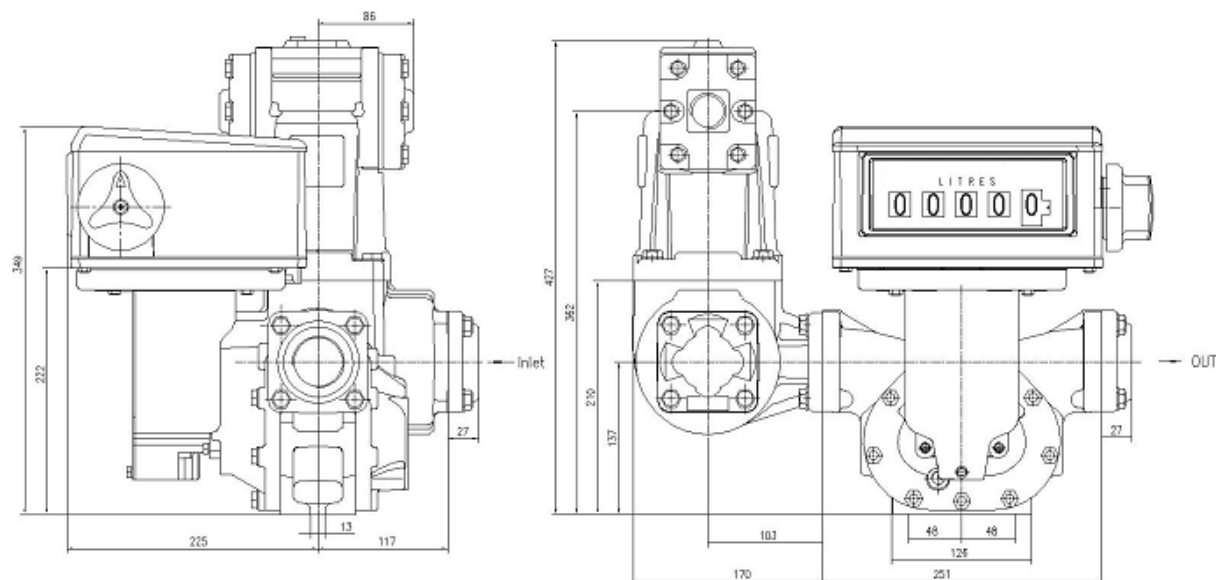
| | | |
|-------------------|---|---------------------|
| Flow rate: | BM-40-1 1 1/2" | 25-250 L/min |
| | BM-50-1 2" | 50-550 L/min |
| | BM-80-1 3" | 115-1150 L/min |
| | BM-100-1 4" | 170-1700 L/min |
| | BM-150-1 6" | 300-3000 L/min |
| Max Pressure: | 10 Bar | |
| Std measure unit: | Litres | |
| Accuraccy | +/- 0.2% | Repeatability: 0.2% |
| Type of flange: | DIN PN16, ANSI 150# (Threaded NPT, BSPF) | |
| Strainer mesh: | 80 Mesh for diesel, 40 Mesh for Gasoline. | |

DIMENSIONS

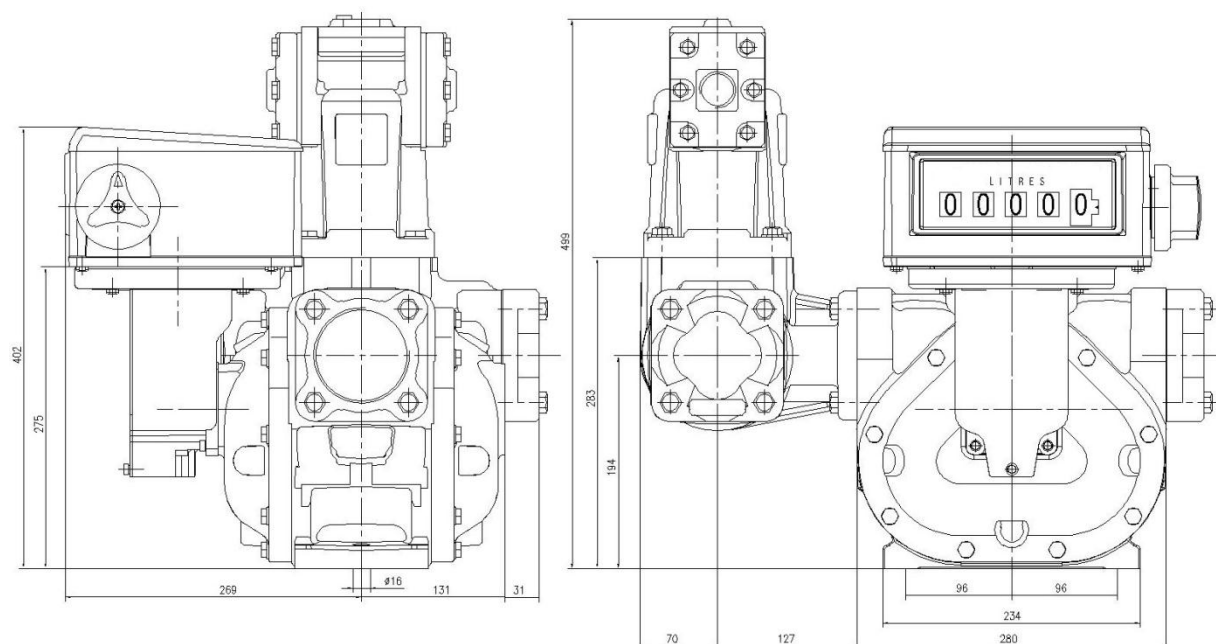
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BM-50-1 Meter Dimension



BM-80-1 Meter Dimension



| Model | M-40-1 | M-50-1 | M-80-1 | M-100-1 | M-150-1 |
|--------------|--------------|-------------|------------|------------|------------|
| Dimension | 51 X46X49 cm | 51 X46X49cm | 58x50X61cm | 76X64X72cm | 80X65X79cm |
| Net Weight | 23kg | 26kg | 40kg | 70Kg | 130Kg |
| Gross Weight | 25kg | 28kg | 47kg | 93Kg | 180Kg |

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