

BM Positive Displacement Flow Meter



WORKING PRINCIPLE

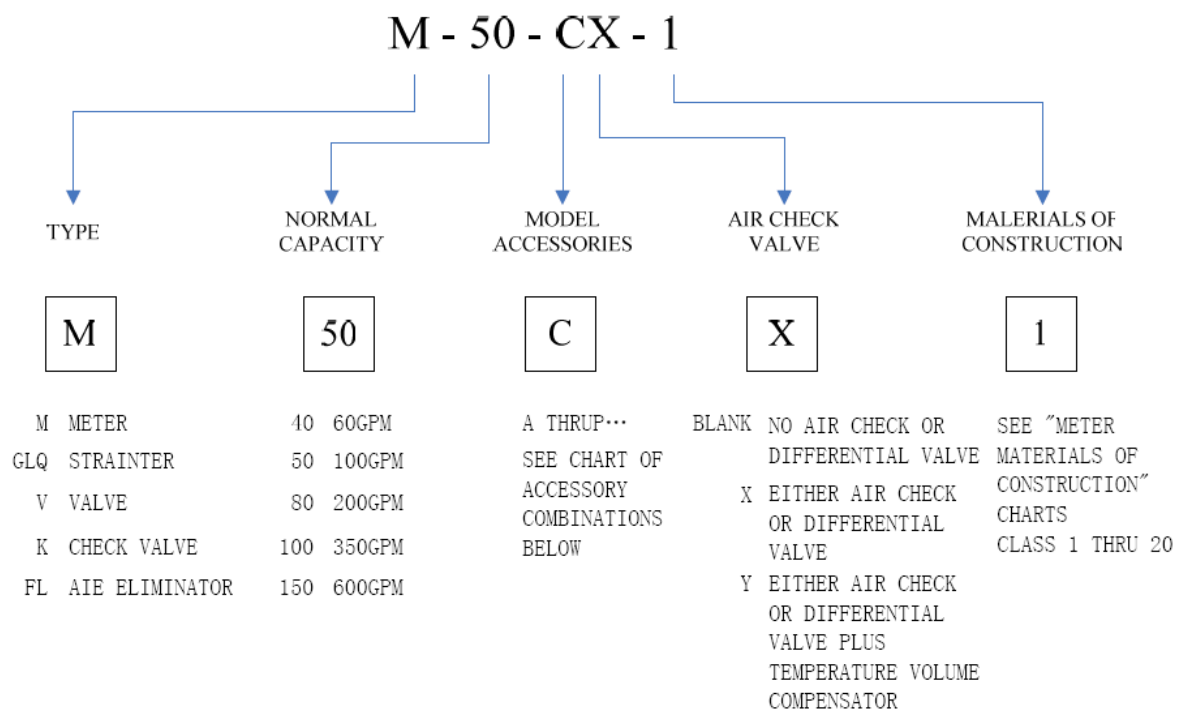
Working principle for the metering body

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.

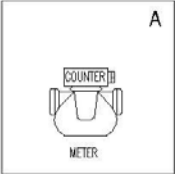
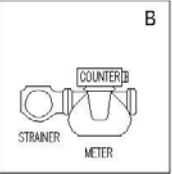
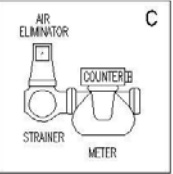
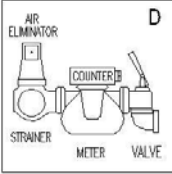
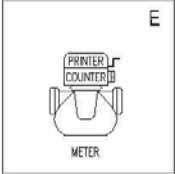
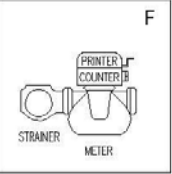
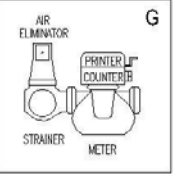
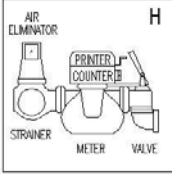
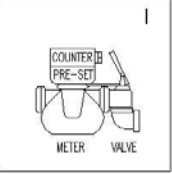
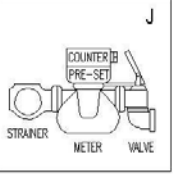
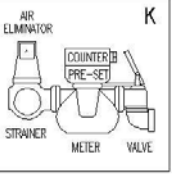
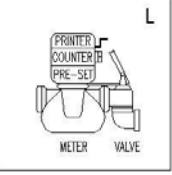
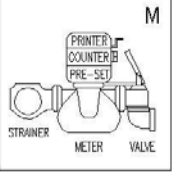
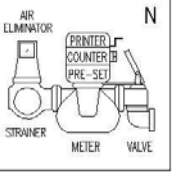
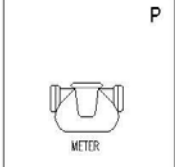
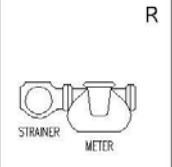
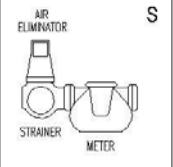
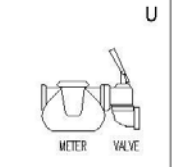
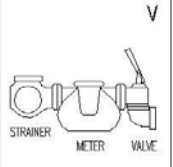
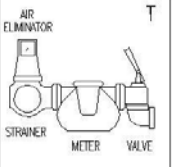
The displacement rotors, alternately move through the two half-cylinder bores of the meter element, while the single blocking rotor rotates within its bore in such a way as to produce a continuous capillary seal between the unmetered upstream product and the metered, downstream product.

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

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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
COUNTER NO PRINTER NO PRE-SET						
COUNTER PRINTER NO PRE-SET						
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COUNTER PRINTER PRE-SET						
NO COUNTER NO PRINTER NO PRE-SET						

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).

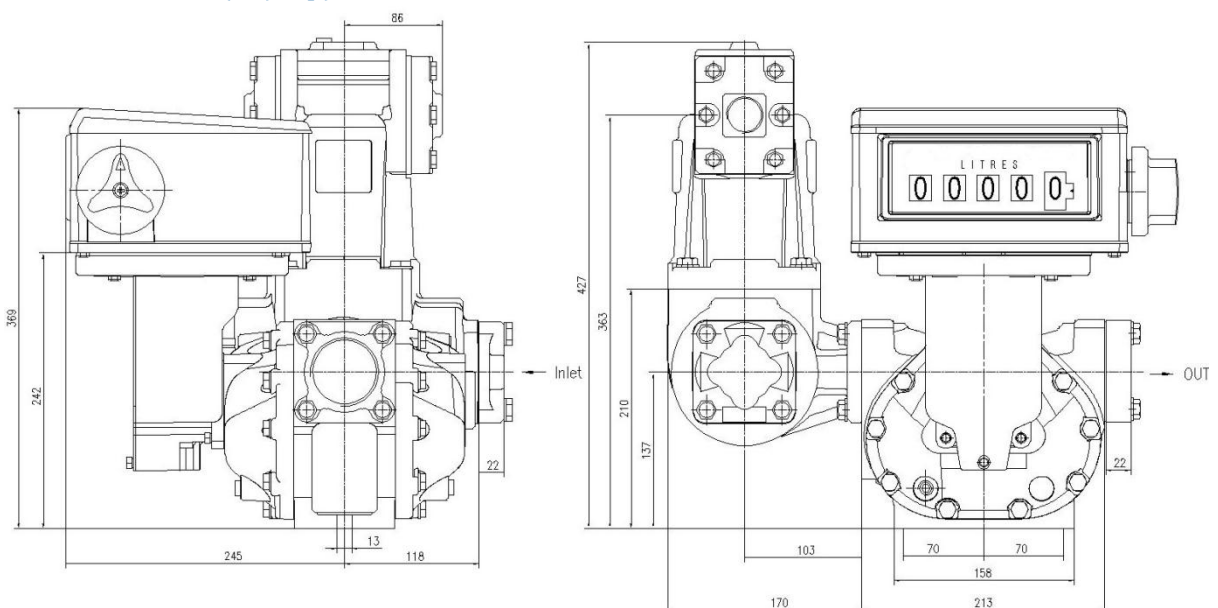
Class 16 meter: for general solvent metering, such as methanol, toluene, xylene, naphtha, acetone, MEK, MIBK, and alcohols including ethanol.

TECHNICAL DATA

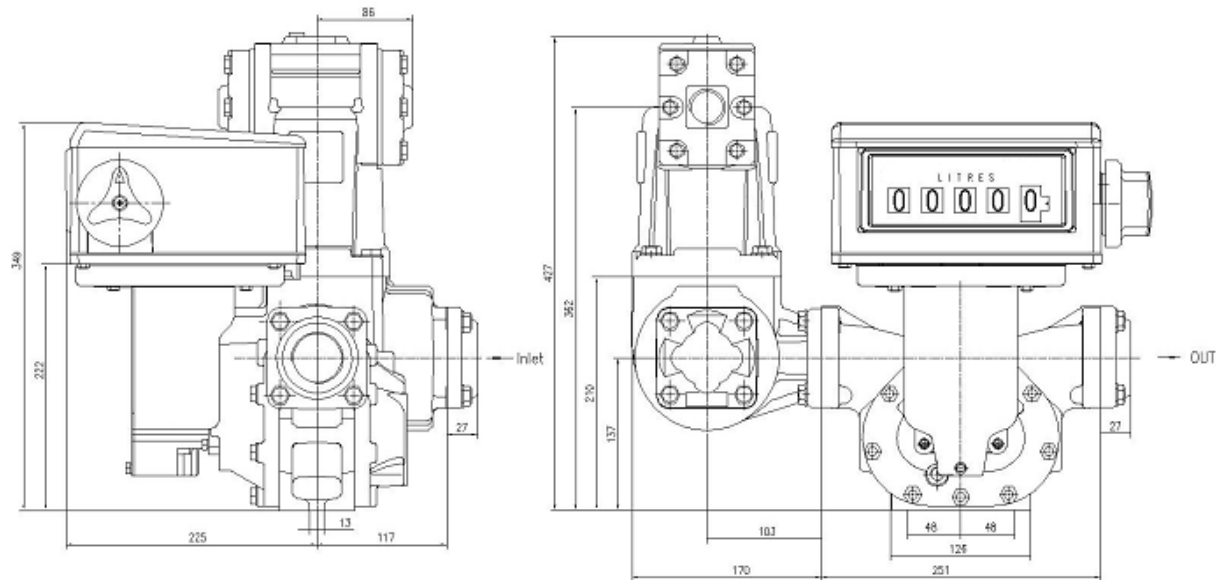
Flow rate:	BM-40-1 1 1/2"	25-250 L/min
	BM-50-1 2"	50-550 L/min
	BM-80-1 3"	115-1150 L/min
	BM-100-1 4"	170-1700 L/min
	BM-150-1 6"	300-3000 L/min
Max Pressure:	10 Bar	
Std measure unit:	Litres	
Accuracyy	+/- 0.2%	Repeatability: 0.2%
Type of flange:	DIN PN16, ANSI 150# (Threaded NPT, BSPF)	
Strainer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

DIMENSIONS

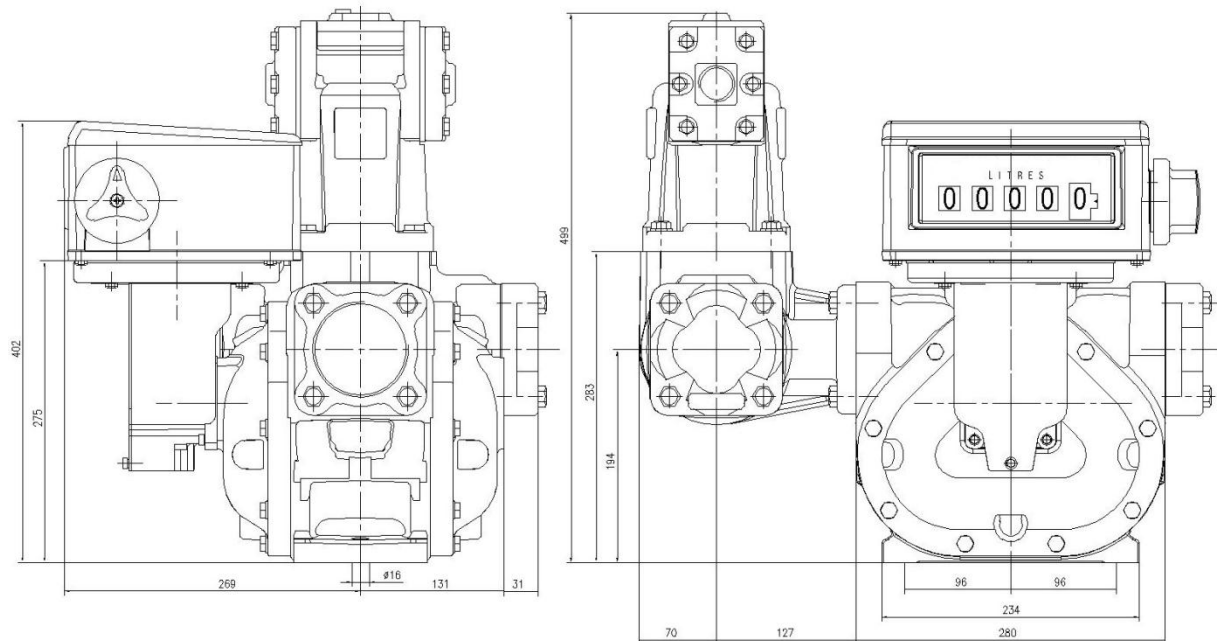
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BM-50-1 Meter Dimension



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