

# Specification Sheet

# M150 Hot Water Meter



## Description

**Operation.** The M150 (formerly KMM) is a multijet (inferential) impeller meter. The impeller and magnet are the only moving parts in the measuring chamber. The impeller movement is transferred by a magnetic coupling to the evacuated and hermetically sealed register, which can be turned to any position for easy reading.

**Installation.** The meter must be installed in a clean pipeline, free from any foreign materials. The meter shall be installed with the direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined lines up to 45°, with the register facing upward. Note, the meter must have 10 pipe diameters ahead of the unit and 5 after, of straight pipe, to insure proper flow through the meter.

**Application.** The meter is for use with hot water up to 195°F and working pressure to 150 psi. Both pressure loss and accuracy tests are made before shipment. No adjustments need to be made before installation.

**Construction.** The meter consists of the main case, a strainer, a measuring chamber, an impeller, a removable top plate and O-ring with a magnetically driven register or register pulser assembly and security ring. The main case is cast bronze with raised characters showing direction of flow. The securing ring secures the internal mechanism and top plate. The unit is sealed by the O-ring gasket. The measuring chamber is designed so the impeller/magnet transfers the flow to the register. The register is secured to the main case by the securing ring.

Sizes: 1" and 1 1/2"

## Specifications

	1"	1 1/2"
Min. Flow gpm + 5%	0.31	0.88
Low Flow gpm + 3%	1.23	3.52
Rec.Cont. gpm ± 1%	15.41	44.03
Peak Flow gpm ± 1%	31.00	88.06
Pressure Loss psi Min.	0.14	0.14
Pressure Loss psi Cont.	2.5	3.5
Pressure Loss psi Peak	7.25	14.5
Operating Pressure psi	150	150
Operating Temperature °F	195	195

### Register Reading

#### Smallest Quantity:

US Gallons	.01	.01
Cubic Meter	1 Ltr.	1 Ltr.

### Capacity of Register/Pulser:

US Gallons (millions)	10	10
Cubic Meter (thousands)	100	100

### Contact Closure/Pulser:

	IPG10	IPG10
US Gallon	1 Cont/Gal	1 Cont/Gal
Cubic Meter	1 Cont/10 Ltr	1 Cont/10 Ltr

### Materials:

Main Case	Brass
Top Plate	PPO Glass Loaded
Measuring Chamber	Polyphenilene Oxide
O-ring	Nitrile Rubber
Impeller	Polyamide 12
Magnet	Ceramic Ferrite
Strainer	Polythene High Density
Register	High-Impact Polycarbonate
Register Housing Lid	High-Impact Polycarbonate
Register & Number	Graphited Polyamide 11
Gearing Wheels	High-Impact Polycarbonate
Pulser	High-Impact Polycarbonate

**Register.** The register is a dust and waterproof, hermetically sealed unit (no condensation is caused by variation of temperature). The register can be turned to any position for easy reading.

**Pulser.** The pulser consists of a plastic housing with a clear lens to read the totalizing register. The pulse element is a dry contact reed switch rated at 4 watts, maximum voltage: 24 V AC/DC. This unit requires power from an external source and normally is wired in series with no regard to polarity, approximately 9-10 feet of 2-wire unshielded cable exists in a sealed fitting.

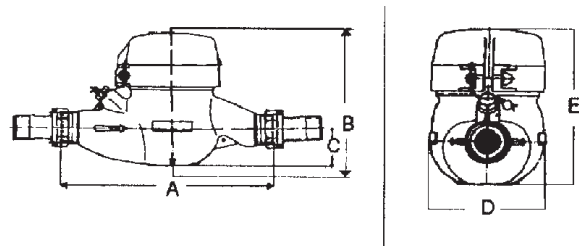
**Connections.** The meter casing spuds have external straight threads conforming to ANSI B2.1. Bronze coupling nuts and tailpieces are available.

**Pulser Wiring.** The pulse element is a 4-watt rated reed switch which requires power from an external source. The unit is to be wired in series with no regard to polarity. Note: Maximum voltage, 24 V AC/DC, 0.2 Amp current, not to exceed 4 watts, current limit only max. resistance in series with reed switch.

**Dimensions and Net Weights**  
Dimensions (inches)

Weight (lbs.)

Meter Size	A Length	B Height	C Center To Bottom	D Width	E Height w/Pulser	Register
						Pulser
1"	10.25	5.38	1.84	3.93	5.98	4.95
						4.40
1 1/2"	11.82	5.62	2.25	5.00	5.62	7.50
						7.35



US Gallon

1" and 1 1/2"

**Temperature/Pressure Rating**

Temp. °F	32-150	195
MIN PSIG	-	6

"MIN PSIG" is the minimum line pressure required to prevent flashing within the meter body.

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