

CLARK**MJ-SDC Multi-Jet Totalizing Water Meter***5/8" x 3/4", With or Without Pulse/Reed Switch Output***DESCRIPTION**

Model MJ-SDC 5/8 x 3/4" meters are multi-jet, dry type totalizing water meters. They are an ideal choice for a range of municipal, private and industrial water metering applications.

A pulse/reed switch output of one pulse per 0.1, 1.0, 10 or 100 gallons is available.

MJ-SDC meters are accurate and reliable. They are produced in an ISO9001 certified production facility and are constructed in conformance with AWWA C708 standards. The cold water meters are certified by NSF to meet ANSI/NSF 61 for materials safety and ANSI/NSF 372 for lead free compliance and conform with lead free plumbing as defined by California, Vermont, Maryland and Louisiana state laws and the U.S Safe Drinking Water Act.

SPECIFICATIONS**GENERAL**

Measuring Principle: Multi-Jet

Meter Type: Dry, magnetic coupling between rotor and register movement

Meter Sizes: 5/8 x 3/4"

Max Operating Temperature: Cold Water

Meter :122°F (50°C); Hot Water Meter 194°F (90°C)

Max Operating Pressure: 150 PSI

Proof Pressure: 300 PSI

Materials:

Main Casing: ECO Brass (C87850)

Couplings/Tailpieces: C89833

Other Materials: See Table 2

Registration Accuracy, with water <80°F (27°C):

Normal Test Flow Range (Table 1): The meter will register 98.5% to 101.5% of the water that passes through it.

At Minimum Test Flow (Table 1): The meter will register 97% to 103% of the water that passes through it.

Pressure Drop: <15 PSI , see curve (fig. 1)

Installation: Horizontal orientation recommended



Inlet Strainer: Internal and can be cleaned without breaking security seal

Casing Spud Connections: External straight threads according to ANSI/ASME B1.20.1. See Dimensions, Connections and Weights (Table 2) for details.

Accessories: Meter coupling (tailpiece) sets that include 2 couplings and 2 gaskets, are optionally available.

OPTIONAL PULSE/REED SWITCH OUTPUT:

The pulse emitter consists of a plastic housing with a reed switch that is closed when a magnet mounted on one of the meters register totalizers comes into its activation proximity. A 1.5 meter (59") length of 2-conductor wire 3.5 mm inch diameter is standard. One conductor has red insulation and one has black.

Max Voltage: 24V AC/DC

Max Current: 0.01 A

Gallons per pulse: 0.1, 1 (standard), 10, 100

Output Bounce Time: 0.01 second



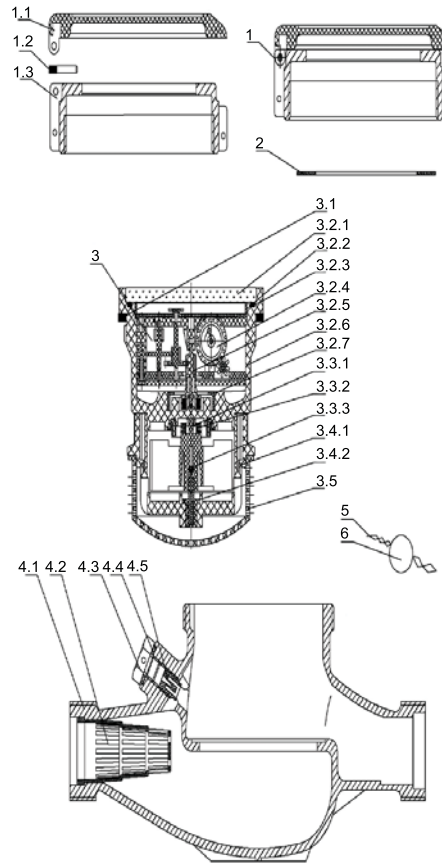
MJ-SDC with Reed Switch Output

Table 1- Operating Characteristics

Model	Size	Safe Max. Flow GPM	Recommended Maximum Continuous Flow Rate GPM	Min. Test Flow GPM	Normal Test Flow Limits GPM	Min. Reading Gallons	Max. Reading Gallons	Gallons/Pulse Output Option
MJ-SDC	5/8 x 3/4"	20	10	0.25	1-20	0.005	9,999,999.99	0.1, *1, 10, 100 *Standard

Table 2 Meter Parts		
1	Lid-Pin-Cap	
1.1	Lid	ABS
1.2	Pin	Brass
1.3	Head Ring	Brass
2	Sliding Gasket	
3	Register Assembly	
3.1	Register Chamber Gasket	EPDM
3.2	Register	PET, PC, SS, Rubber, Glass, ABS
3.2.1	Glass	Glass
3.2.2	Gasket	ABS
3.2.3	O-ring	Rubber
3.2.4	Indicator	PC, SS, Rubber, Glass, ABS
3.2.5	Central Gear	POM, Magnet
3.2.6	Register Chamber	PA757, POM, SiO ₂
3.2.7	Upper Protect Ring	Iron
3.3	Impeller Assembly	
3.3.1	Impeller	POM
3.3.2	Magnet	Ferrite
3.3.3	Bearing	SiO ₂
3.4	Measuring Chamber Assembly	
3.4.1	Measuring Chamber	ABS
3.4.2(A)	Measuring Chamber Shaft	SS, POM
3.4.2(B)	Measuring Chamber Shaft Tip	Carbon Fiber Reinforced Polyamide
3.5	Inside Strainer	PP
4	Body Parts	
4.1	Body	C87850
4.2	Inlet Strainer	PP
4.3	Calibration Bolt	PA
4.4	Calibration Gasket	EPDM
4.5	Calibration Screw	POM
5	Copper Wire	Copper
6	Seal	Lead, Plastic

fig. 3 Meter Parts



OPERATION:

Water flows through the meter's strainer (inlet and internal) and into the measuring chamber where it drives the impeller. A driving magnet transmits the movement of the impeller to a driven magnet located within the sealed register. The magnet is connected to a gear train which translates the impeller rotations into volume totalizers displayed on the register dial face.

fig. 1- Pressure Drop

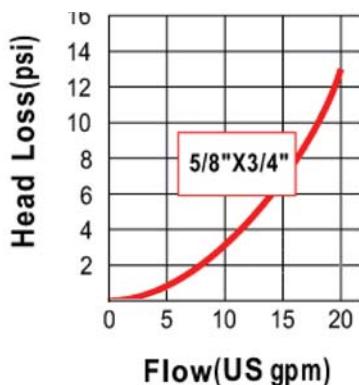
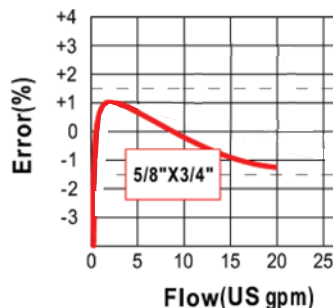
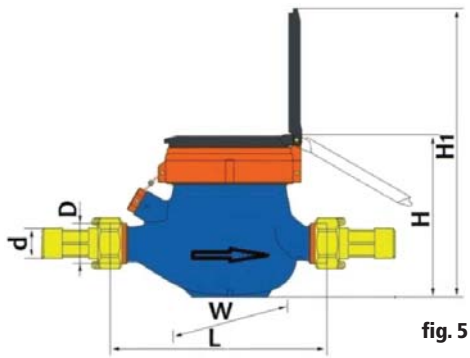


fig. 2- Accuracy



DIMENSIONS, CONNECTIONS & WEIGHT



Model	Size	L Length Inches (mm)	W Width Inches (mm)	H Height Inches (mm)	H ₁ Height Inches (mm)	D Spud Threads (NPS)	d NPT	Weight
MJ-SDC	5/8 x 3/4"	7.5 (190)	3.7 (94)	4.23(107.5)	7.52 (191)	1"	3/4"	3 lbs

ORDERING INFORMATION

BUILD PART NUMBER FROM BELOW CHART: A-B-C

EXAMPLE: MJ-SDC-5/8X3/4-X0.1

A Model	B Meter Type	C *Pulse Output
MJ-SDC-5/8x3/4	No entry = Cold Water Meter **H-NLB= Hot Water Meter	-- None x0.01= Pulse every .1 gal x0.1= Pulse every 1 gal x1= Pulse every 10 gal x10= Pulse every 100 gal

* Units are standardly available without pulse output and with a pulse output of 1 gallon per pulse. Consult factory for other pulse output values, minimum order quantities may apply.
** Hot water meters have not as yet been third party tested for NSF/ANSI 61 and NSF/ANSI 372 compliance

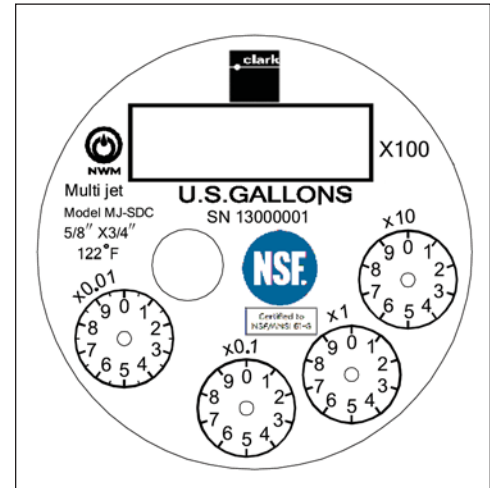


fig. 4- Cold Water Meter Dial Layout

METER COUPLINGS (TAILPIECES)

3/4" Meter Size	Description	Dimension (mm)
d1	Hole Diameter	20
L	Coupling Length	50
L1	Length	62
d	Coupling Thread	3/4-14 NPT
D	Nut Thread	1-11.5 NPSM
D1	Dimension	41
E	Gasket Thickness	3



ECO-Connection tailpiece assemblies are certified by NSF to meet ANSI/NSF 61 for materials safety and ANSI/NSF 372 for lead free compliance

Model	Description	Weight
ECO-Connection 3/4	includes 2 couplings, 2 nuts and 2 EPDM gaskets	0.6 lb

