

USER MANUAL

FLOCAT

FloCat Series Multi-jet Dry Type Water Meters with Contact Output

FloCat-075-R • FloCat-100-R

FloCat-150-R • FloCat-200-R





Multi-jet Dry Type Water Meters with Contact Output FloCat-075R-200R

Main Technical Data

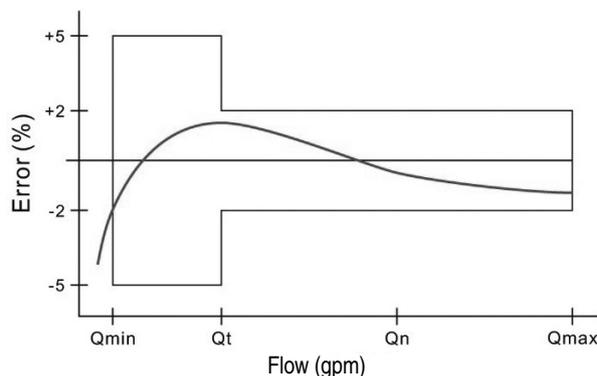
Nominal diameter	DN		062-5/8"x 1/2"	075-3/4"	100-1"	150-1 1/2"	200-2"
Maximum flow rate	US gpm	Qmax	13.2	22	30.8	88	132
Nominal flow rate	US gpm	Qn	6.6	11	15.4	44	66
Transition flow rate	US gpm	Qt	0.53	0.88	1.23	3.52	5.3
Minimum flow rate	US gpm	Qmin	0.133	0.22	0.31	0.88	1.32
Minimum reading	US gallon		0.01	0.01	0.01	0.1	0.1
Minimum graduation	US gallon		0.005	0.005	0.005	0.05	0.05

◆ Maximum Permissible Error:

In the lower zone from Qmin inclusive up to but excluding Qt is $\pm 5\%$.

In the upper zone from Qt inclusive up to and including Qmax is $\pm 2\%$.

Accuracy Curve



General Information

FloCat Series meters use the internationally-accepted multi-jet principle. A gear train drives the register totalizer dials. For pulse output, one of the pointers is replaced by a magnet arm, which is detected by a reed switch sensor attached to the outside of the lens. The reed switch provides dry contact closure and does not require power.

Pulse Output

Reed switch sensors respond to a magnet that rotates on the face of the meter under the lens. The sensor turns on and off once each time the magnet passes under it. Sensors are designed for electronic control loads, and should not be used to switch power loads or line voltages. See maximum current and voltage ratings, under specifications.

Inlet Strainer

Clean the strainer yearly, or as required, depending on water condition. Pull out the strainer or back-flush the meter to loosen trapped particulates.

Calibration

New meters are factory tested to meet AWWA C-708 Multi-Jet Meter accuracy specification.

Specifications

Temperature	105°F (40°C) max	
Pressure	150 psi operating	
Materials	Body	Cast bronze
	Inter-	Engineered thermoplastic
	Magnet	Alnico
Accuracy	+/- 1.5% of reading	
Sensor	Reed switch	
Maximum Current	20 mA	
Maximum Voltage	24 Vdc or Vac	
Cable Length	12'(4m) std (2000' max run)	



Multi-jet Dry Type

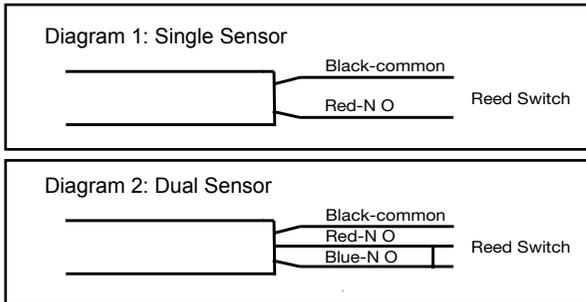
Water Meters with Contact Output

FloCat-075R-200R

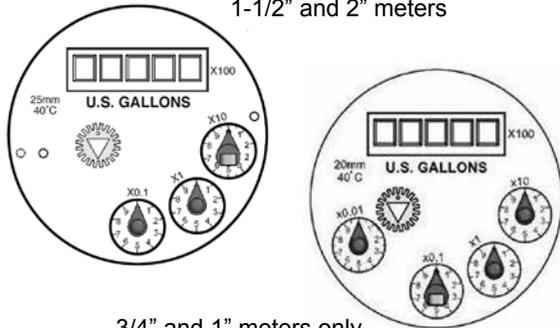
Suggested Meter Installation

- Thoroughly flush the service line upstream of the meter to remove dirt and debris.
- Set the meter inline. Water meters are recommended to be installed horizontally with the register facing upwards.
- Make sure the water flow follows the arrow cast on the meter body.
- Slowly open any upstream valves to prevent damage to the meter.

Connection Diagrams



1-1/2" and 2" meters



3/4" and 1" meters only

Changing Pulse Rates

The pulse rate is determined by the dial on which the magnet pointer is located. To move the magnet pointer, remove meter top and lens, taking care not to lose the sealing ring. With fingers, lift the magnet pointer off its shaft and remove the plain pointer from the target dial. Reverse their positions and press them firmly into place. Securely seat the sealing ring and then replace the lens, matching the tab on the lens to the notch on the meter so as to align the sensor with the magnetic pointer dial. Thread the meter top on and tighten.

Meter Size	Pulse Rate	Drive Gear Position	Connection Diag.#
3/4"	20 P/G	X0.01	2
	10 P/G	X0.01	1
	4 P/G	X0.1	1& magnet wheel
	2 P/G	X0.1	2
	1 P/G	X0.1	1
	5 G/P	X1	2
	10 G/P	X1	1
	50 G/P	X10	2
	100 G/P	X10	1
1"	20 P/G	X0.01	2
	10 P/G	X0.01	1
	4 P/G	X0.1	1& magnet wheel
	2 P/G	X0.1	2
	1 P/G	X0.1	1
	5 G/P	X1	2
	10 G/P	X1	1
	50 G/P	X10	2
	100 G/P	X10	1
1-1/2"	4 P/G	X0.1	1& magnet wheel
	2 P/G	X0.1	2
	1 P/G	X0.1	1
	5 G/P	X1	2
	10 G/P	X1	1
	50 G/P	X10	2
	100 G/P	X10	1
2"	4 P/G	X0.1	1& magnet wheel
	2 P/G	X0.1	2
	1 P/G	X0.1	1
	5 G/P	X1	2
	10 G/P	X1	1
	50 G/P	X10	2



Multi-jet Dry Type Water Meters with Contact Output FloCat-075R-200R

Warranty

FloCat water meters are warranted to perform to AWWA new meter accuracy standards, and to be free from defects in materials and workmanship for a period of 12 months from date of shipment. If a meter does not perform as warranted, FloCat will repair it free of charge subject to the terms of this warranty.

FloCat liability under this performance warranty is expressly limited to the repair or replacement of the meter upon the customer's returning the complete meter prepaid to:

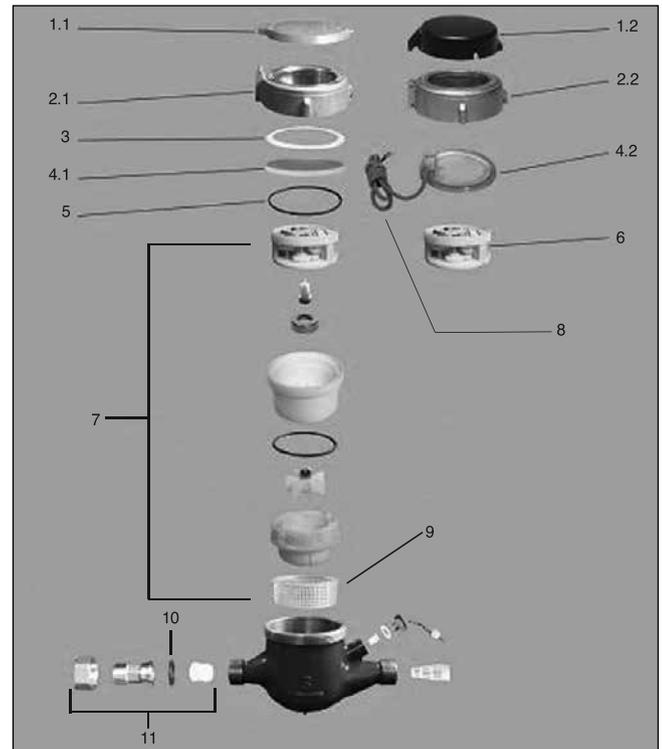
Instrumart
Repair Department
35 Green Mountain Drive
S Burlington, VT 05403 US

This performance guarantee shall not be applicable to meters which have been damaged by aggressive water conditions, foreign matter in media, mis-application, willful misconduct, negligence, vandalism, act of God, improper installation, frost/ freeze damage or using the meter outside of it's specific operating parameters (especially temperature and flow ranges).

In no event shall FloCat be liable for incidental or consequential damages of any kind, including but not limited to loss of profits or revenue, loss of use, cost of capital, cost of substitute equipment, facilities or services, downtime costs, delays and claims of customers of the customer or other third parties.

Internal Parts Replacement

All the internal parts of the meter lift out as a unit, after the top has been unscrewed. The lens can then be removed and the internal assembly lifted out. If necessary, turn the meter upside down and tap one end lightly on a countertop to loosen the internals. The assembly can be separated by hand.



Parts	3/4"	1"	1 1/2"	2"
1.1 Lid/Hinge Assembly-Totalizer	A0323	A0324	A0325	A0326
1.2 Lid/Hinge Assembly-Pulser	A0023	A0024	A0025	A0026
2.1 Retaining Ring-Totalizer	A0328	A0329	A0330	A0331
2.2 Retaining Ring-Pulser	A0128	A0129	A0130	A0131
3 Lens Gasket	A0004	A0005	A0006	A0006
4.1 Lens-Totalizer	A0303	A0303	A0303	A0303
4.2 Lens-Pulser	A0003	A0003	A0003	A0003
5 O-Ring (clockwork seal)	A0044	A0044	A0044	A0044
6 Register Clockwork - Internal Assembly-includes: Register, Central Gear, Magnetic Shield, Bushing, Register Chamber, Chamber Gasket, Impellar, Measuring Chamber, Internal Strainer	A0077	A0099	A0113	A0114
7 Strainer	A0120	A0121	A0122	A0123
8 Reed Switch Sensor w/cable, 1 ct.	A0001	A0001	A0001	A0001
8 Reed Switch Sensor w/cable, 2 ct.	A0002	A0002	A0002	A0002
9 Internal Strainer	A0015	A0017	A0019	A0021
10 Coupling Gasket, 2 ct./meter	A0028	A0030	A0032	A0034
11 Coupling Assembly	A0027	A0029	A0031	A0033