

GENERAL

The Model AR, Automatic Reset Register, is used to measure predetermined quantities of liquid and then transmit a signal which activates other equipment. This unit is widely applied in water conditioning systems. The AR Register is used with Badger Meter's Disc and Turbo meters.

The AR register is equipped with a nickel-plated reset pointer and a red sweep pointer which moves counterclockwise from the preset position. When the red pointer reaches zero, a trip cam closes a signal switch and a motor switch. The signal is used to start tank regeneration, while the motor resets the pointers at their original position.

OPERATION

The register is preset by loosening two screws in the pointer hub and moving the pointers to the desired position. This setting is then "locked in" by retightening the hub screws. (For detailed instructions, see Installation Manual IOM-024.)

As the liquid is metered, the red sweep pointer moves counterclockwise. At the zero reading, a cam on the pointer shaft closes the signal and the reset motor switches.

The reset motor drives the nickel-plated reset pointer counterclockwise until it also reaches zero. The nickel pointer "picks up" the red pointer and carries it back to the original preset position.

The motor switch opens, the motor stops, and the signal to external equipment is terminated. The register is now ready for the next metering cycle.

For installations with more than one water conditioning tank, the AR can be supplied with a built-in relay which can be wired into the control circuit in accordance with the recommendations of the water conditioner manufacturer. This is identified as the Model ARR.

**SPECIFICATIONS**● **PHYSICAL**

- Housing:** Glass-filled polycarbonate, NEMA 4X
- Internal Plates:** Brass
- Gears:** Brass or Thermoplastic
- Shafts:** 303 Stainless Steel
- Register Size:** 7 1/2" W, 8 7/8" H, 6 3/4" D
- Dial Size:** 5 3/4"
- Totalizer:** Six-digit, non-resettable

● **ELECTRICAL**

- Contact Rating:** 7 amps at 115 VAC
AR register available for 24 VAC,
115 VAC, and 230 VAC

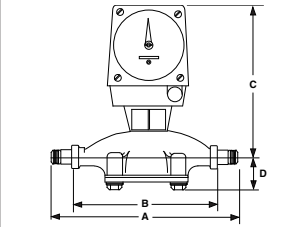


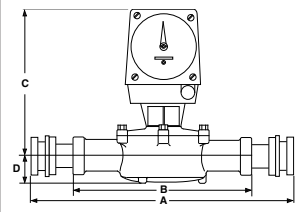
Dial Capacities

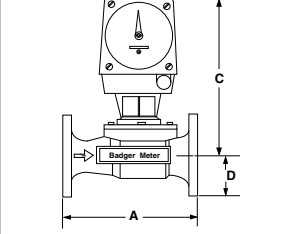
	RCDL Disc Meters					Industrial Turbo Meters			
	M25 (5/8")	M35 (3/4")	M40 & M70 (1")	M120 (1 1/2")	M170 (2")	2"	3"	4"	6"
100	X	X	X						
200	X	X	X						
500	X	X	X						
1,000	X	X	X	X	X	X	X		
2,000	X	X	X	X	X	X	X		
5,000	X	X	X	X	X	X	X		
10,000	X	X	X	X	X	X	X		
20,000	X	X	X	X	X	X	X		
50,000	X	X	X	X	X	X	X	X	X
100,000	X	X	X	X	X	X	X	X	X
200,000	X	X	X	X	X	X	X	X	X
500,000	X	X	X	X	X	X	X	X	X
1,000,000				X	X	X	X	X	X
2,000,000				X	X	X	X	X	X
5,000,000				X	X	X	X	X	X
10,000,000								X	X

Basic AR Register dials in gallons. Metric dials in litres up to 50,000. Dials 100,000 and above are in equivalent M³.

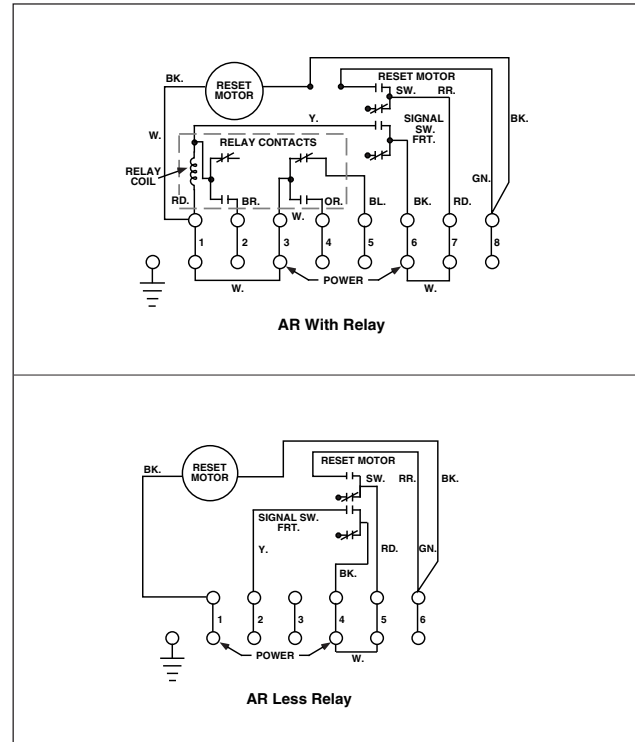
Dimensional Diagrams

	RCDL DISC Meters		
	M 25	M 35	M 40 & 70
A	12.25"	14.0"	16.0"
B	7.5"	9.0"	10.75"
C	12.67"	13.27"	13.87"
D	1.7"	1.7"	2.3"

	RCDL DISC Meters	
	M 120	M 170
A	18.37"	22.87"
B	12.62"	15.25"
C	14.27"	14.77"
D	2.4"	2.9"

	Industrial Turbo Meters			
	2"	3"	4"	6"
A	10"	12"	14"	18"
B	----	----	----	----
C	16 7/8"	17 1/8"	20 1/16"	22 1/2"
D	2 3/4"	3 1/2"	4 1/4"	5 1/4"

Wiring Diagrams



Allow additional 7 1/4" clearance for removing register housing.



Please see our website at
www.badgermeter.com
 for specific contacts.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding bid obligation exists.



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