

accuMAG Meters

1-1/2", 2", 3", 4", 6", 8", 10", 12", 14", 16", 18", 20" and 24"

Description

1-1/2", 2", 3", 4", 6", 8", 10", 12", 14", 16", 18", 20" and 24" Sizes

The accuMAG meter operation is based on electromagnetic flow (EMF) technology.



Features

CONFORMANCE TO STANDARDS

The accuMAG meter meets and far exceeds the flow requirements of the most recent revision of AWWA Standard C701 class II. Each meter is performance tested to ensure accuracy compliance. The accuMAG meters meet NSF/ANSI Standard 61, Annex F and G.

PERFORMANCE

The measurement principles of the accuMAG meter assure enhanced accuracy ranges, and an extended service life. The accuMAG meter has no restrictions as to sustained flow rates within its continuous operating range. The measuring tube allows for flows up to its rated maximum capacity without undue wear or accuracy degradation due to no moving parts.

CONSTRUCTION

The accuMAG meter consists of two basic assemblies; the measuring tube and the liner. The measuring tube consists of polyurethane coated steel housing and a nonmagnetic alloy tube with an obstruction-less cross section and a homogenous magnetic field. The liner of the measuring tube is made of Rilsan® and is resistant to corrosion, aging and abrasion.

ELECTRONIC REGISTER

The accuMAG electronic register can be supplied either attached to the meter or a remote design. In the remote design, the register can be installed (between 30 to 75 feet) on the wall or on a post. Additionally, the large character LCD displays AMR, Totalization and a Resettable Test Totalizer. accuMAG register features; AMR resolution units that are fully programmable, Pulse output units are fully programmable, Integral resettable accuracy testing feature compatible with Uni-Pro Testing Assistant Programs, Large, easy-to-read LCD also displays both forward and reverse flow directions. The accuMAG register has extremely low power consumption and with a sampling rate of 1/15 Hz, the water meter can operate for more than ten years before the batteries would need to be replaced.

MEASURING TECHNOLOGY

An electrically conductive fluid flows inside an electrically insulating pipe through a magnetic field. The magnetic field is generated by a current, flowing through a pair of field coils. Inside of the fluid, a voltage is generated. The signal voltage is picked off by electrodes and is proportional to the mean flow velocity and thus the flow rate. The signal voltage

is very small. The register amplifies the signal voltage, filters it and converts it into signals for totalization, recording and output processing. When installed in any orientation.

MAINTENANCE

The accuMAG meter is designed for easy maintenance. With no moving parts, the maintenance consists of inspecting the measuring tube for deposits or abrasions and battery health.

AMR / AMI SYSTEMS:

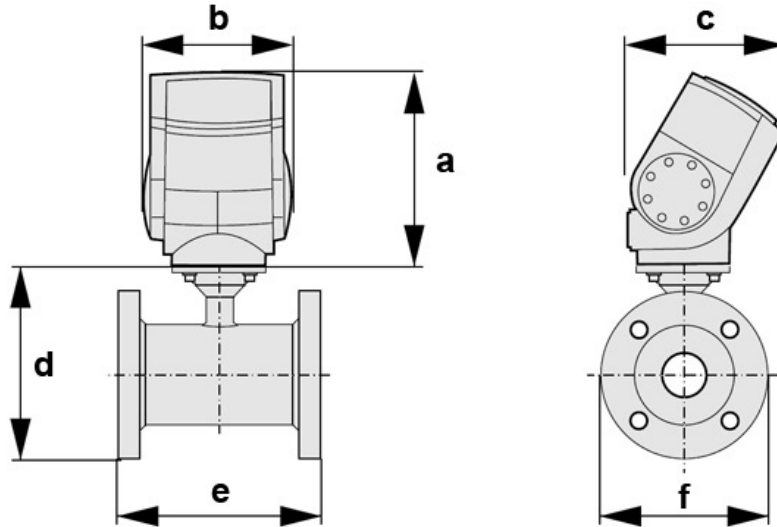
Meters and encoders are compatible with current Sensus AMR/AMI systems.

GUARANTEE:

Sensus accuMAG Water Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.

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Register Mounted to Meter

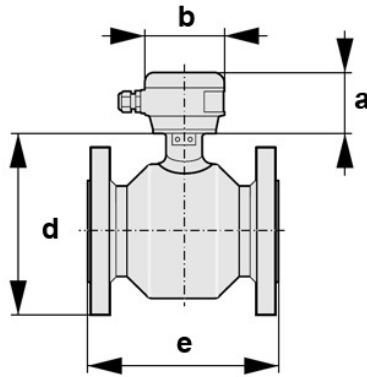


DIMENSIONS AND NET WEIGHTS

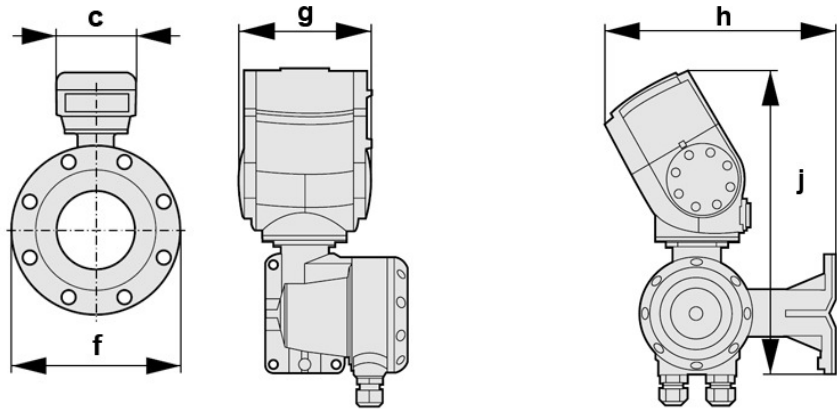
Meter and Pipe Size	Normal Operating Range		Connections	A	B	C	D	E	F	Net Weight
1-1/2" DN 40mm	.7 gpm .16 m ³ /hr	180 gpm 40.9 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	6" 152mm	5.91" 150mm	4.92" 125mm	21 lbs. 9.5 kg.
2" DN 50mm	1.2 gpm .27 m ³ /hr	320 gpm 72.7 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	7.05" 180mm	7.87" 200mm	5.98" 152mm	34 lbs. 15.4 kg.
3" DN 80mm	2.8 gpm .63 m ³ /hr	720 gpm 163 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	8.03" 204mm	7.87" 200mm	7.5" 190mm	42 lbs. 17 kg.
4" DN 100mm	5 gpm 1.13 m ³ /hr	1250 gpm 284 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	9.49" 240mm	9.84" 250mm	9" 228mm	56 lbs. 17 kg.
6" DN 150mm	11 gpm 2.5 m ³ /hr	2850 gpm 647 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	11.69" 297mm	11.81" 300mm	11" 280mm	80 lbs. 29 kg.
8" DN 200mm	19.5 gpm 4.4 m ³ /hr	5100 gpm 1158 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	14.25" 362mm	13.78" 350mm	13.5" 343mm	100 lbs. 36 kg.
10" DN 250mm	31 gpm 7.0 m ³ /hr	8000 gpm 1816 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	16.3" 414mm	15.75" 400mm	16" 406mm	148 lbs. 50 kg.
12" DN 300mm	44.5 gpm 10.1 m ³ /hr	11500 gpm 2610 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	18.78" 477mm	19.69" 500mm	19" 482mm	212 lbs. 60 kg.
14" DN 350mm	182 gpm 41.3 m ³ /hr	15700 gpm 3564 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	20.67" 525mm	27.56" 700mm	21" 533mm	289 lbs. 80 kg.
16" DN 400mm	237 gpm 53.8 m ³ /hr	20500 gpm 4654 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	22.95" 583mm	31.5" 800mm	23.5" 597mm	369 lbs. 103 kg.
18" DN 450mm	300 gpm 68.1 m ³ /hr	26000 gpm 5902 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	24.72" 628mm	31.5" 800mm	25" 635mm	415 lbs. 113 kg.
20" DN 500mm	370 gpm 84 m ³ /hr	32100 gpm 7287 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	26.67" 677mm	31.5" 800mm	27.5" 698mm	497 lbs. 132 kg.
24" DN 600mm	385 gpm 87.4 m ³ /hr	33400 gpm 7582 m ³ /hr	Flanged	6.7" 170mm	4.8" 122mm	5.5" 140mm	31.38" 797mm	31.5" 800mm	32" 813mm	680 lbs. 167 kg.

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Remote Register Version



Remote Register for Wall or Post Mount



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range		Connections	A	B	C	D	E	F	G	H	J	Net Weight
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2" DN 50mm	1.2 gpm .27 m ³ /hr	320 gpm 72.7 m ³ /hr	Flanged	3.1" 79mm	5.5" 140mm	4.2" 107mm	7.05" 180mm	7.87" 200mm	5.98" 152mm	4.8" 122mm	13.2" 335mm	12.2" 310mm	34 lbs. 15.4 kg.
3" DN 40mm	2.8 gpm .63 m ³ /hr	720 gpm 163 m ³ /hr	Flanged	3.1" 79mm	5.5" 140mm	4.2" 107mm	8.03" 204mm	7.87" 200mm	7.5" 190mm	4.8" 122mm	13.2" 335mm	12.2" 310mm	42 lbs. 17 kg.
4" DN 100mm	5 gpm 1.13 m ³ /hr	1250 gpm 284 m ³ /hr	Flanged	3.1" 79mm	5.5" 140mm	4.2" 107mm	9.49" 240mm	9.84" 250mm	9" 228mm	4.8" 122mm	13.2" 335mm	12.2" 310mm	56 lbs. 17 kg.
6" DN 150mm	11 gpm 2.5 m ³ /hr	2850 gpm 647 m ³ /hr	Flanged	3.1" 79mm	5.5" 140mm	4.2" 107mm	9.49" 240mm	11.81" 300mm	11" 280mm	4.8" 122mm	13.2" 335mm	12.2" 310mm	80 lbs. 29 kg.
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SPECIFICATIONS

SERVICE	Measurement of potable and reclaim water. Operating temperature range of 23 °F (-5 °C) to 158 °F (70 °C)
OPERATING RANGE (100% ± 1.5%)	1-1/2" - 0.7 - 180 GPM (.16 - 40.9 m³/hr) 2" - 1.2 - 320 GPM (.27 - 72.7 m³/hr) 3" - 2.8 - 720 GPM (.63 - 163 m³/hr) 4" - 5 - 1,250 GPM (1.13 - 284 m³/hr) 6" - 11 - 2,850 GPM (2.5 - 647 m³/hr) 8" - 19.5 - 5,100 GPM (4.4 - 1,158 m³/hr) 10" - 31 - 8,000 GPM (7.0 - 1,816 m³/hr) 12" - 44.5 - 11,500 GPM (10.1 - 2,610 m³/hr) 14" - 182 - 15,700 GPM (41.3 - 3,564 m³/hr) 16" - 237 - 20,500 GPM (53.8 - 4,654 m³/hr) 18" - 300 - 26,000 GPM (68.1 - 5,902 m³/hr) 20" - 370 - 32,100 GPM (84.0 - 7,287 m³/hr) 24" - 385 - 33,400 GPM (87.4 - 7,582 m³/hr)
LOW FLOW (> 95%)	1-1/2" - .3 GPM (.07 m³/hr) 2" - .4 GPM (.09 m³/hr) 3" - .7 GPM (.16 m³/hr) 4" - 1.3 GPM (.29 m³/hr) 6" - 3 GPM (.68 m³/hr) 8" - 5.5 GPM (1.25 m³/hr) 10" - 8.4 GPM (1.91 m³/hr) 12" - 12 GPM (2.72 m³/hr) 14" - 49 GPM (11.1 m³/hr) 16" - 64.5 GPM (14.6 m³/hr) 18" - 82 GPM (18.6 m³/hr) 20" - 101 GPM (22.9 m³/hr) 24" - 105 GPM (23.8 m³/hr)
MAXIMUM CONTINUOUS OPERATION	1-1/2" - 180 GPM (40.9 m³/hr) 2" - 320 GPM (72.7 m³/hr) 3" - 720 GPM (163 m³/hr) 4" - 1,250 GPM (284 m³/hr) 6" - 2,850 GPM (647 m³/hr) 8" - 5,100 GPM (1,158 m³/hr) 10" - 8,000 GPM (1,816 m³/hr) 12" - 11,500 GPM (2,610 m³/hr) 14" - 15,700 GPM (3,564 m³/hr) 16" - 20,500 GPM (4,654 m³/hr) 18" - 26,000 GPM (5,902 m³/hr) 20" - 32,100 GPM (7,287 m³/hr) 24" - 33,400 GPM (7,582 m³/hr)

MAXIMUM INTERMITTENT OPERATION	1-1/2" - 225 GPM (51.1 m³/hr) 2" - 400 GPM (90.8 m³/hr) 3" - 900 GPM (204 m³/hr) 4" - 1,560 GPM (355 m³/hr) 6" - 3,560 GPM (809 m³/hr) 8" - 6,375 GPM (1,447 m³/hr) 10" - 10,000 GPM (2,270 m³/hr) 12" - 14,375 GPM (3,263 m³/hr) 14" - 19,625 GPM (4,455 m³/hr) 16" - 25,625 GPM (5,817 m³/hr) 18" - 32,500 GPM (7,378 m³/hr) 20" - 40,125 GPM (9,108 m³/hr) 24" - 41,750 GPM (9,477 m³/hr)																
MAXIMUM OPERATING PRESSURE	175 PSI (12.1 bar)																
FLANGE CONNECTIONS	U.S. ANSI B16.1 / AWWA Class 150																
REGISTER	Fully electronic register with programmable registration (Gal. /Cu.Ft. / Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs 8-15 year field replaceable battery life (based on configuration)																
NSF APPROVED MATERIALS	<table border="0"> <tr> <td>Measuring Tube Housing:</td> <td>Polyurethane Coated Steel</td> </tr> <tr> <td>Measuring Tube:</td> <td>Non-magnetic Alloy Steel</td> </tr> <tr> <td>Flanges:</td> <td>Steel</td> </tr> <tr> <td>Liner:</td> <td>Rilsan (1 1/2" - 12") Hard Rubber (14"-24")</td> </tr> <tr> <td>Measuring Electrodes:</td> <td>Stainless Steel</td> </tr> <tr> <td>Grounding Electrode:</td> <td>Stainless Steel</td> </tr> <tr> <td>Register Housing:</td> <td>Polyurethane coated Die-cast Aluminum</td> </tr> <tr> <td>Register Connection Box: (for remote version only)</td> <td>Polyurethane coated Die-cast Aluminum</td> </tr> </table>	Measuring Tube Housing:	Polyurethane Coated Steel	Measuring Tube:	Non-magnetic Alloy Steel	Flanges:	Steel	Liner:	Rilsan (1 1/2" - 12") Hard Rubber (14"-24")	Measuring Electrodes:	Stainless Steel	Grounding Electrode:	Stainless Steel	Register Housing:	Polyurethane coated Die-cast Aluminum	Register Connection Box: (for remote version only)	Polyurethane coated Die-cast Aluminum
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