

# ally® Water Meter

Electromagnetic Flow Measurement with 3-State Valve

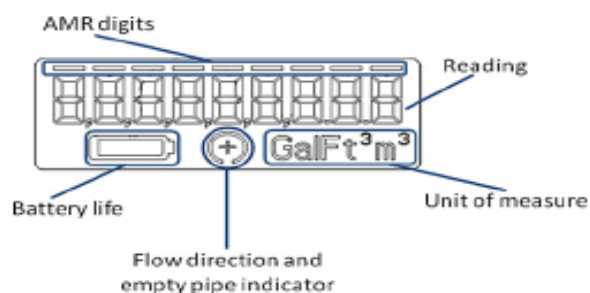
## Description

**5/8" (DN 15mm), 3/4" (DN 20mm) and 1" (DN 25mm) Sizes**

The Sensus® ally® water meter combines smart water technology, a 3-state valve, and temperature and pressure sensors. You can now optimize your distribution system and utility operations with one meter. ally has no moving parts and is based on our innovative electromagnetic flow measurement technology. The ally family has an operating range as low as 0.03 gpm (0.007 m<sup>3</sup>/hr) to 55 gpm.

### Benefits:

- Fewer truck rolls for service shut-off
- Quicker service shut-off
- Better customer service and fewer service calls
- Energy optimization
- Freeze detection
- Pressure management



Electronic Register LCD Display

## Features

### CONFORMANCE TO STANDARDS

The ally meter far exceeds the most recent revision of ANSI/AWWA Standard C-700 and C-710 for accuracy and pressure loss requirements. All ally meters are NSF/ANSI Standard 61 Annex F and G compliant and tested to AWWA standards.

### PERFORMANCE

The patented measurement technology of the ally meter allows enhanced accuracy ranges at both low and high flows and perpetual accuracy over the life of the product and can be installed horizontally, vertically or diagonally.

### CONSTRUCTION

The ally is an integrated unit that incorporates an electronic register, 3-state valve, temperature sensor, pressures sensor, and a measuring device encased in an external housing. The measuring device is comprised of a composite alloy flowtube with externally-threaded spud

ends. Embedded in the flowtube are magnetic flow sensors. The all electronic, programmable register is hermetically sealed with a tempered glass cover. The ally meter has a 20-year life cycle, along with a 20-year accuracy warranty.

### ELECTRONIC REGISTER

The high resolution 9-digit hermetically sealed electronic register with LCD display was designed to eliminate dirt, lens fogging issues and moisture contamination in pit settings with built in tamper protection. The tempered glass register cover displays readings with the AMR digits highlighted. Direction of flow, rate of flow and units of measure are also easily readable on the register display. The ally register features programmable AMR resolution and unit of measure, and integral customer data logging of 90-120 days. The large, easy to read display includes battery life, empty pipe and forward/reverse flow indicators. Additionally, the register

displays temperature and pressure values along with programmable high/low alarms.

### SHUT-OFF VALVE

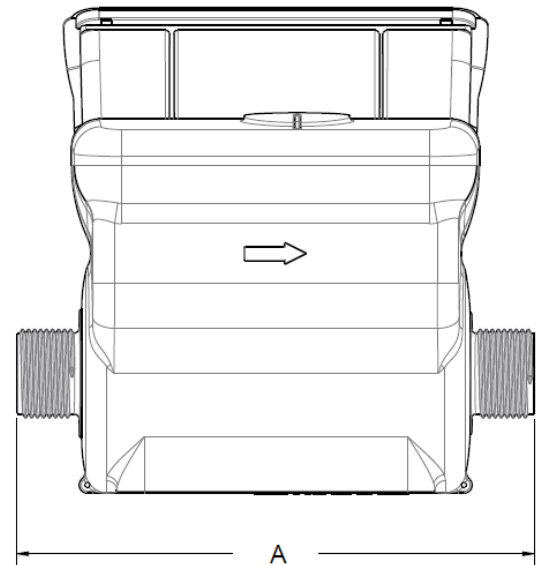
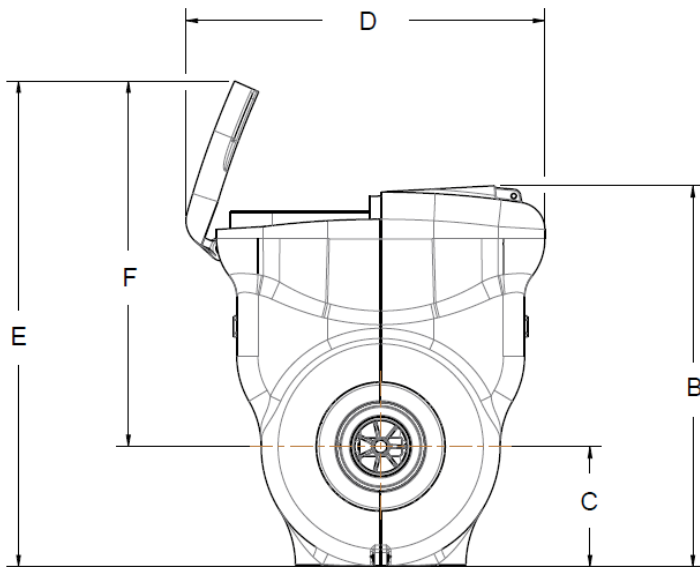
The shut-off valve has 3 states-- open, closed, and reduced flow. Reduced flow mode allows 1-2 GPM on average for life-sustaining applications (based on 65 psig). The stainless steel ball valve is self-cleaning and remains functional due to automatic seat exercising. The ally meter also contains a proprietary actuator to operate the valve.

### TAMPERPROOF FEATURES

The integrated construction of the ally meter prevents removal of the register to obtain free water. The magnetic tamper and low field alarms will both indicate any attempt to tamper with the magnetic field of the ally meter.

### AMR / AMI SYSTEMS

ally meters are compatible with current Sensus AMR/AMI systems.



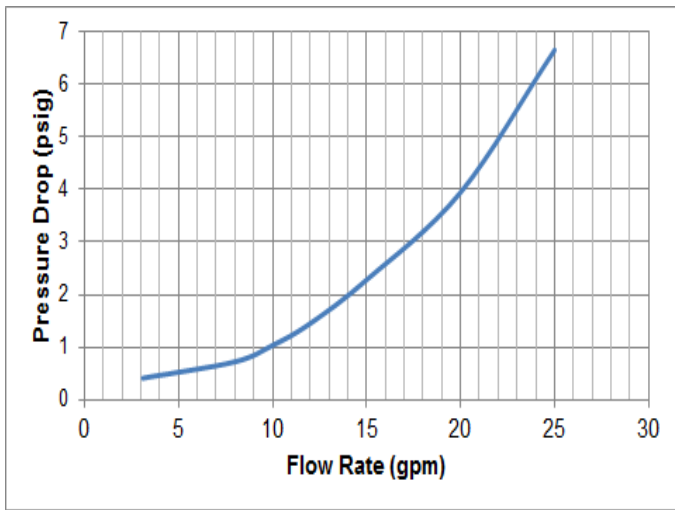
## DIMENSIONS AND NET WEIGHTS

Size	A (lay length)	B	C	D	E	F	Spud Ends	NPSM Thread Size	Width	Net Weight
5/8" (DN 15 mm)	7-1/2" (190 mm)	5-1/2" (140 mm)	1-3/4" (44 mm)	5-1/5" (132 mm)	7" (178 mm)	5-3/10" (44 mm)	5/8" (15 mm)	3/4" (19 mm)	4-1/2" (114 mm)	3.3 lb. (1.5 kg)
3/4"S (5/8" x 3/4") (DN 20 mm)	7-1/2" (190 mm)	5-1/2" (140 mm)	1-3/4" (44 mm)	5-1/5" (132 mm)	7" (178 mm)	5-3/10" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.3 lb. (1.5 kg)
3/4" (DN 20 mm)	9" (229 mm)	5-1/2" (140 mm)	1-3/4" (44 mm)	5-1/5" (132 mm)	7" (178 mm)	5-3/10" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.4 lb. (1.54 kg)
1" (DN 25 mm)	10-3/4" (273 mm)	5-1/2" (140 mm)	1-3/4" (44 mm)	5-1/5" (132 mm)	7" (178 mm)	5-3/10" (44 mm)	1" (25 mm)	1-1/4" (32 mm)	4-1/2" (114 mm)	3.5 lb. (1.59 kg)

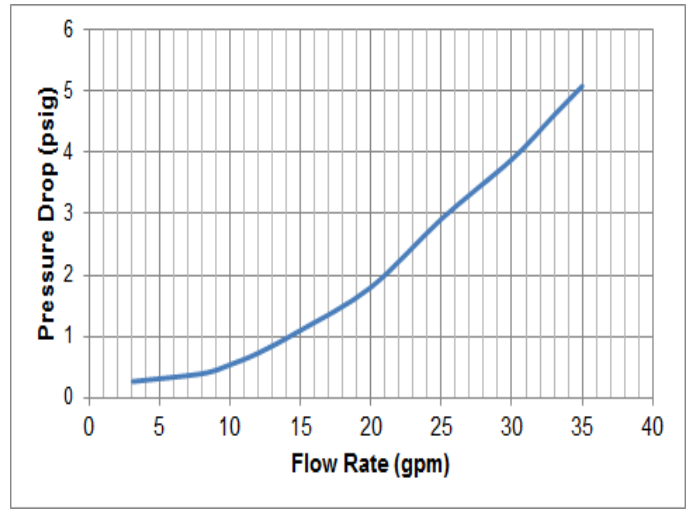
## SPECIFICATIONS

<b>SERVICE</b>	Measurement of potable and reclaim water. Operating water temperature range of 33 °F (0.56 °C) - 150 °F (65.6 °C)	<b>MEASUREMENT TECHNOLOGY</b>	Solid state electromagnetic flow
<b>NORMAL OPERATING FLOW RANGE</b> (±1.5%)	5/8" (DN 15mm) size: 0.18 to 25 gpm (0.04 to 5.7 m³/hr) 3/4" (DN 20mm) size: 0.18 to 35 gpm (0.04 to 8.0 m³/hr) 1" (DN 25mm) size: 0.4 to 55 gpm (0.09 to 12.5 m³/hr)	<b>REGISTER</b>	Hermetically sealed, 9-digit programmable electronic register AMR/AMI compatible Programmable ally meter register
<b>LOW FLOW RANGE</b> (±3%)	5/8" (DN 15mm) size: >0.11 gpm (0.025 m³/hr) to <0.18 gpm (0.041 m³/hr) 3/4" (DN 20mm) size: >0.11 gpm (0.025 m³/hr) to <0.18 gpm (0.041 m³/hr) 1" (DN 25mm) size: >0.3 gpm (0.068 m³/hr) to <0.4 gpm (0.09 m³/hr)	<b>MATERIALS</b>	External housing – Thermal plastic Flowtube – Polyphenylene sulfide alloy Electrode – Silver/silver chloride Register cover – Tempered glass
<b>STARTING FLOW</b>	5/8" (DN 15mm) size: 0.03 gpm (0.007 m³/h) 3/4" (DN 20mm) size: 0.03 gpm (0.007 m³/h) 1" (DN 25mm) size: 0.11 gpm (0.025 m³/h)	<b>ALARM DEFAULTS</b>	Alarm Duration – 45 days Leak Duration – 24 hours Datalog Interval – 1 hour Pressure – Low: 35 psig. High – 100 psig Temperature – Low: 35° F. High – 80° F
<b>MAXIMUM OPERATING PRESSURE</b>	200 psig (13.8 bar)		

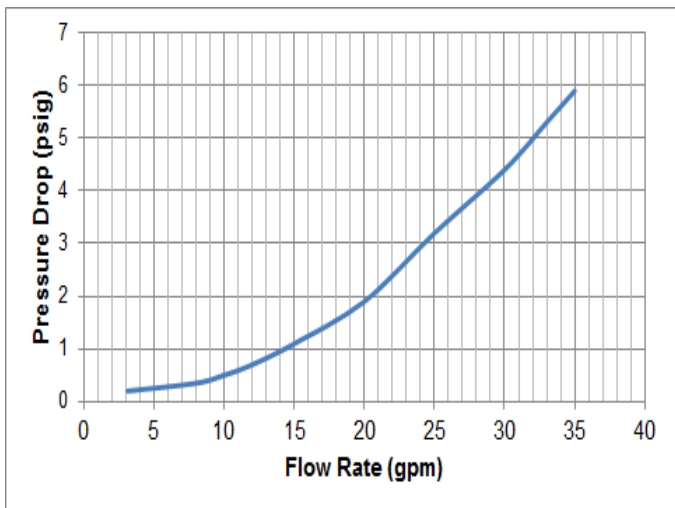
## HEADLOSS CURVES



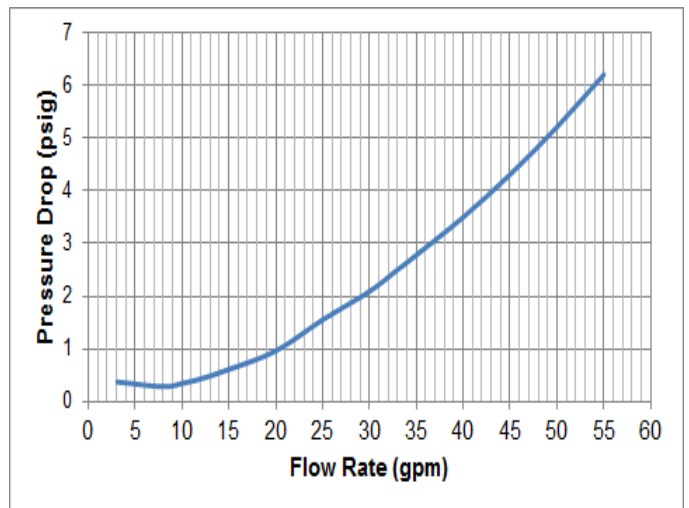
5/8" Headloss Curve



3/4" Short Headloss Curve



3/4" Headloss Curve



1" Headloss Curve

© All products purchased and services performed are subject to Sensus' terms of sale, available at either; <http://na.sensus.com/TC/TermsConditions.pdf> or 1-800-647-3748. Sensus reserves the right to modify these terms and conditions in its own discretion without notice to the customer.

This document is for informational purposes only, and SENSUS MAKES NO EXPRESS WARRANTIES IN THIS DOCUMENT. FURTHERMORE, THERE ARE NO IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY. ANY USE OF THE PRODUCTS THAT IS NOT SPECIFICALLY PERMITTED HEREIN IS PROHIBITED.