



OMNI™+ REGISTER DISPLAY



Segment Test View



Notification View

## **Conformance to Standards**

The OMNI+ C<sup>2</sup> meter meets and far exceeds the most recent revision of AWWA Standard C701 class II and meets the AWWA Standard C702 class II accuracy standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF/ ANSI Standard 61, Annex F and G approved latest standards.

# OMNI+ Compound (C<sup>2</sup>) Water Meter

# 1-1/2", 2", 3", 4", 6", 8" and 10"

The OMNI™+ Compound (C²) Water Meter operation is based on advanced Floating Ball Technology (FBT).

## Performance

The patented measurement principles of the OMNI+ C<sup>2</sup> meter ensure greater accuracy, expanded accuracy range and longer service life than any other comparable class meter. The OMNI+ C<sup>2</sup> meter has no restrictions on sustained flow rates within its continuous range. The floating ball measurement technology allows installation in any orientation and flows up to maximum rated capacity without undue wear or accuracy degradation.

## Construction

The OMNI+ C<sup>2</sup> meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and an AWWA compliant strainer.

## OMNI+ Electronic Register

The OMNI+ electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The OMNI+ register features a programmable totalizer registration, an optional digital pulse signal, AMI/ AMR reading digits, and a resettable test totalizer. The large, easy-to-read LCD also displays both forward and reverse flow directions. The OMNI+ tamper-proof security cover can be positioned in any of 270 degrees of rotation, with indexing points at each of the 90-degree customary register viewing positions.

### **Magnetic Drive**

Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

### **Measuring Element**

The hydro-dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI+ C<sup>2</sup> meter.





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**Totalizer View** 

#### Strainer

The OMNI+  $C^2$  with the AWWA compliant "V" shaped strainer uses a stainless steel screen along with Floating Ball Technology (FBT). This creates a design that greatly improves accuracy, even in difficult settings. A removable strainer cover permits easy access to the screen for routine maintenance.

#### **AMR/AMI** Systems

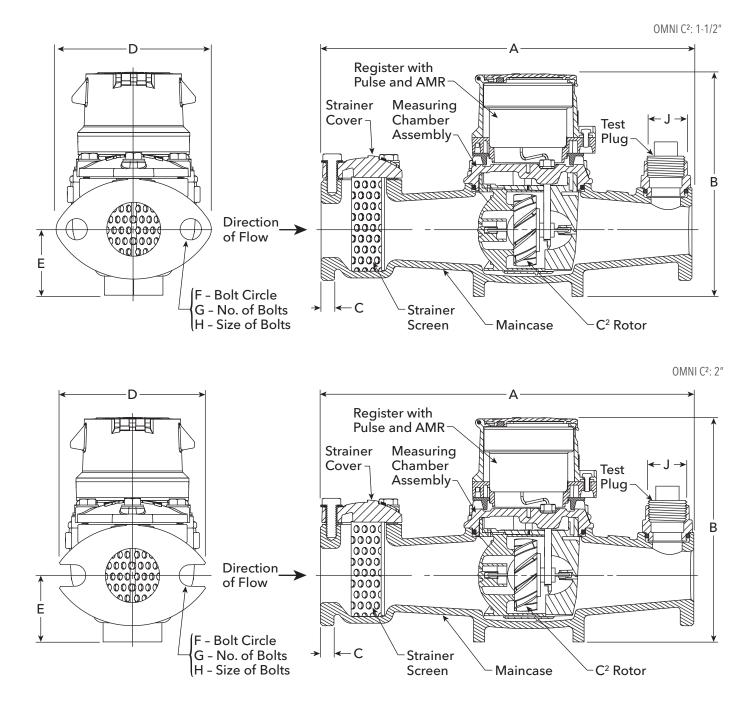
Meters and Electronic Registers are compatible with current Sensus AMR/AMI systems and other AMI communication systems that use the Sensus UI1203 protocol.

#### Maintenance

The OMNI+  $C^2$  meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and/ or strainer cover can be removed independently. Replacement parts or complete measuring chambers are available for repairs. OMNI+  $C^2$  replacement measuring chambers may also be utilized to upgrade some third-party meters to achieve increased accuracy and extended service life.

### Data Logging

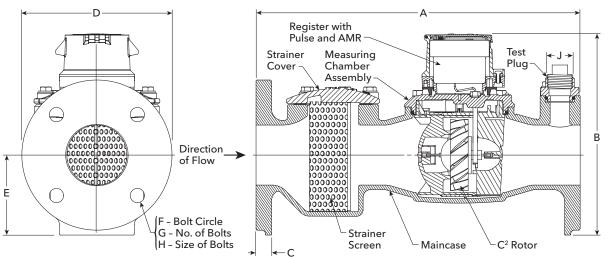
The OMNI+ C<sup>2</sup> meter logs 180 days of hourly consumption data.



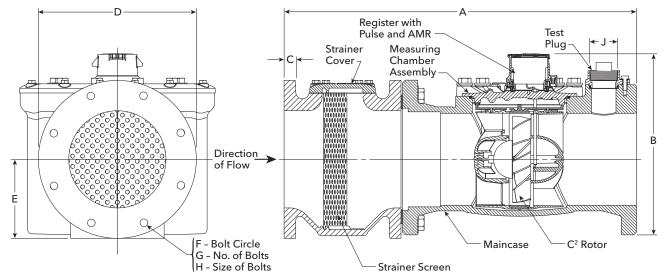
# OMNI+ Compound (C<sup>2</sup>) Water Meter

## 1-1/2", 2", 3", 4", 6", 8" and 10"

OMNI C<sup>2</sup>: 3" - 6"



OMNI C2: 8" - 10"



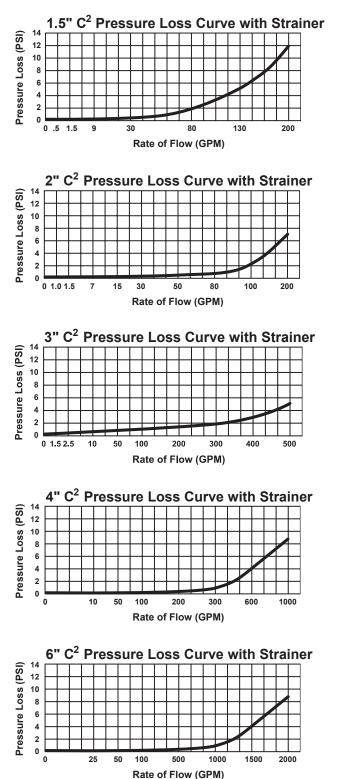
#### DIMENSIONS AND NET WEIGHTS

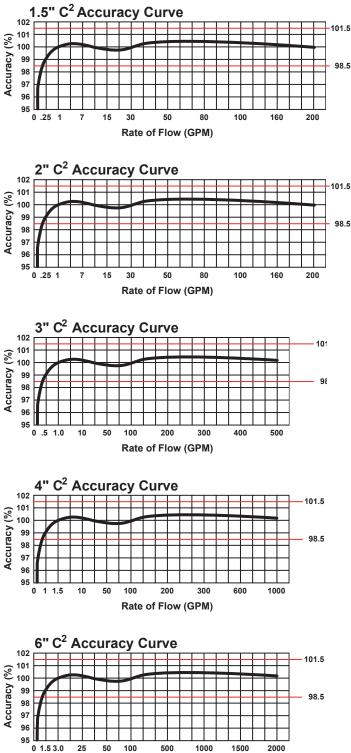
| Meter<br>and Pipe<br>Size |                      | rmal<br>ng Range      | Connections | А                  | В                 | С               | D                 | E                | F                 | G  | Н             | J               | Net<br>Weight       | Shipping<br>Weight  |
|---------------------------|----------------------|-----------------------|-------------|--------------------|-------------------|-----------------|-------------------|------------------|-------------------|----|---------------|-----------------|---------------------|---------------------|
| 1-1/2" DN<br>40 mm        | .5 gpm<br>.11 m³/hr  | 200 gpm<br>45 m³/hr   | Flanged     | 13″<br>330 mm      | 8-1/2"<br>216 mm  | 15/16″<br>24 mm | 5-7/16"<br>138 mm | 2-5/16"<br>59 mm | 4″<br>102 mm      | 2  | 5/8″<br>16 mm | 1″<br>25 mm     | 18.8 lb<br>8.53 kg  | 22.5 lb<br>10.20 kg |
| 2″ DN<br>50 mm            | .5 gpm<br>.11 m³/hr  | 200 gpm<br>45 m³/hr   | Flanged     | 15-1/4″<br>387 mm  | 8-1/2″<br>216 mm  | 1″<br>25 mm     | 5-3/4″<br>146 mm  | 2-5/16″<br>59 mm | 4-1/2″<br>114 mm  | 2  | 5/8″<br>16 mm | 1″<br>25 mm     | 25.4 lb<br>11.5 kg  | 32.5 lb<br>14.74 kg |
| 3″ DN<br>80 mm            | 1 gpm<br>.23 m³/hr   | 500 gpm<br>114 m³/hr  | Flanged     | 17″<br>432 mm      | 11-1/4″<br>286 mm | 3/4″<br>19 mm   | 7-7/8″<br>200 mm  | 4-1/8″<br>105 mm | 6″<br>152 mm      | 4  | 5/8″<br>16 mm | 1″<br>25 mm     | 45 lb<br>20.41 kg   | 48.0 lb<br>21.8 kg  |
| 4″ DN<br>100 mm           | 1.5 gpm<br>.34 m³/hr | 1000 gpm<br>227 m³/hr | Flanged     | 20″<br>508 mm      | 11-3/4″<br>299 mm | 15/16″<br>24 mm | 9-1/8″<br>232 mm  | 4-3/4″<br>121 mm | 7-1/2″<br>191 mm  | 8  | 5/8″<br>16 mm | 1-1/2″<br>38 mm | 64.9 lb<br>29.44 kg | 72.8 lb<br>33.02 kg |
| 6″ DN<br>150 mm           | 3 gpm<br>.68 m³/hr   | 2000 gpm<br>454 m³/hr | Flanged     | 24″<br>610 mm      | 14″<br>355 mm     | 15/16″<br>24 mm | 11″<br>279 mm     | 5-3/4″<br>146 mm | 9-1/2″<br>241 mm  | 8  | 3/4″<br>19 mm | 1-1/2″<br>38 mm | 130 lbs<br>59.0 kg  | 155 lb<br>70.3 kg   |
| 8″ DN<br>200 mm           | 4 gpm<br>.91 m³/hr   | 2700 gpm<br>614 m³/hr | Flanged     | 30-1/8″<br>765 mm  | 16-1/2″<br>419 mm | 11/16″<br>17 mm | 13-1/2″<br>343 mm | 6-3/4″<br>172 mm | 11-3/4″<br>298 mm | 8  | 3/4″<br>19 mm | 2″<br>51 mm     | 471 lb<br>214 kg.   | 521 lb<br>236 kg    |
| 10" DN<br>250 mm          | 5 gpm<br>1.1 m³/hr   | 4000 gpm<br>908 m³/hr | Flanged     | 41-1/8″<br>1045 mm | 19″<br>483 mm     | 11/16″<br>17 mm | 16″<br>406 mm     | 8-1/2"<br>216 mm | 14-1/4″<br>362 mm | 12 | 7/8″<br>22 mm | 2″<br>51mm      | 685 lb<br>311 kg    | 745 lb<br>338 kg    |

#### SPECIFICATIONS

| Service                              | Measurement of potable and reclaim w<br>Storage temperature:<br>-22 °F (-30 °C) to 155 °F (68.3 °C)   | Air: -22 °F (-3                                      | Operating temperatures:<br>Air: -22 °F (-30 °C) to 150 °F (65.6 °C)<br>Water: 33 °F (0.6 °C) to 80 °F (26.7 °C)                                |  |  |  |  |  |
|--------------------------------------|---|--|--|--|--|--|--|--|
| Operating<br>Range<br>(100% ± 1.5%)  | 1-1/2": 0.5 - 200 gpm (0.11 - 45 m³/hr)<br>2": 0.5 - 200 gpm (0.11 - 45 m³/hr)<br>3": 1.0 - 500 gpm (0.23 - 114 m³/hr)<br>4": 1.5 - 1000 gpm (0.34 - 227 m³/hr)                                   | 8": 4 – 2700 gr                                      | 6″: 3 – 2000 gpm (0.68 - 454 m³/hr)<br>8″: 4 – 2700 gpm (0.91 - 614 m³/hr)<br>10″: 5 – 4000 gpm (1.1 - 908 m³/hr)                              |  |  |  |  |  |
| Low flow<br>(95% - 101.5%)           | 1-1/2": 0.25 gpm (.06 m³/hr)<br>2": 0.25 gpm (.06 m³/hr)<br>3": 0.5 gpm (0.11 m³/hr)<br>4": 0.75 gpm (0.17 m³/hr)   | 8": 2.5 gpm (0                                       | 6": 1.5 gpm (0.34 m³/hr)<br>8": 2.5 gpm (0.57 m³/hr)<br>10": 3.5 gpm (0.8 m³/hr)   |  |  |  |  |  |
| Maximum<br>Continuous<br>Operation   | 1-1/2": 160 gpm (36 m³/hr)<br>2": 160 gpm (36 m³/hr)<br>3": 400 gpm (91 m³/hr)<br>4": 800 gpm (182 m³/hr)   | 8″: 2700 gpm   | 6″: 1600 gpm (363 m³/hr)<br>8″: 2700 gpm (614 m³/hr)<br>10″: 4000 gpm (908 m³/hr)  |  |  |  |  |  |
| Maximum<br>Intermittent<br>Operation | 1-1/2": 200 gpm (45 m³/hr)<br>2": 200 gpm (45 m³/hr)<br>3": 500 gpm (114 m³/hr)<br>4": 1000 gpm (227 m³/hr)   | 8": 3400 gpm   | 6″: 2000 gpm (454 m³/hr)<br>8″: 3400 gpm (773 m³/hr)<br>10″: 5000 gpm (1136 m³/hr)   |  |  |  |  |  |
| Pressure Loss                        | 1-1/2": 6.9 psi @ 160 gpm (0.48 bar @ 36<br>2": 4.3 psi @ 160 gpm (0.30 bar @ 36 m <sup>3</sup><br>3": 3.2 psi @ 400 gpm (0.22 bar @ 91 m <sup>3</sup><br>4": 6.4 psi @ 800 gpm (0.44 bar @ 182 m | r) 8": 4 psi @ 270<br>nr) 10": 4.5 psi @             | 6″: 5.5 psi @ 1600 gpm (0.38 bar @ 363 m³/hr)<br>8″: 4 psi @ 2700 gpm (0.28 bar @ 614 m³/hr)<br>10″: 4.5 psi @ 4000 gpm (0.31 bar @ 908 m³/hr) |  |  |  |  |  |
| Maximum<br>Operating Pressure        | 200 PSI (13.8 bar)  |  |  |  |  |  |  |  |
| Flange Connections                   | U.S. ANSI B16.1 / AWWA Class 125  |  |  |  |  |  |  |  |
| Test Ports                           | NPT   |  |  |  |  |  |  |  |
| Register                             | Fully electronic sealed register with<br>programmable registration<br>(Gal. / Cu.Ft. / Cu. Mtr. / Imp. Gal. / Acre  | pulse output   | Programmable AMR/AMI reading and<br>pulse outputs<br>Guaranteed 10-year battery life   |  |  |  |  |  |
| NSF Approved<br>Materials            | Maincase:Coated DuctileMeasuring Chamber:ThermoplasticRotor "Floating Ball":ThermoplasticRadial Bearings:Hybrid ThermoThrust Bearings:Sapphire/Cerar  | Strainer Scree<br>Strainer Cover<br>astic Test Plug: |  |  |  |  |  |  |

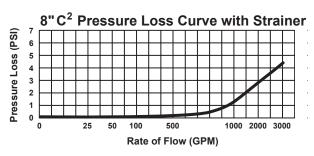
#### **Headloss Curves**

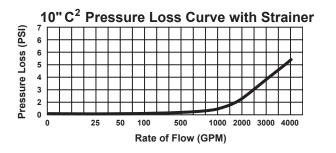


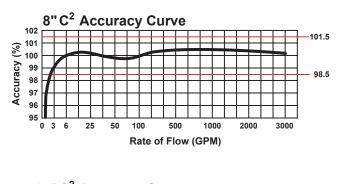


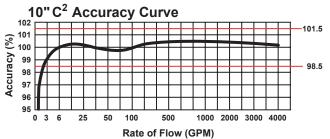
Rate of Flow (GPM)

#### **Headloss Curves**











SENSUS | 637 Davis Drive | Morrisville, NC 27560 | 800.638.3748

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