**Liquid and Gas Flowmeters**

**Accuracy after Scale** (10:1 Range)

- **Stainless-Frame**
  - **Glass-Tube Purge Meters**: For accurate flow measurements of fluids in applications where a glass tube is acceptable.
  - 2% Vertical or Horizontal ½-, 1-, 1½-, 2-in.
  - 150, 300 lb. Flange
  - 82 bar (1200 psi)
  - 316° C (600º F)

- **Metal-Tube Varea-Meter® Flowmeters**: For metering aggressive fluids accurately at high pressures and temperatures.
  - 2% Vertical ½-, 1-, 1½-in.
  - 150, 300 lb. Flange
  - 82 bar (1200 psi)
  - 316° C (600º F)

**Connections Maximum**

- **Glass-Tube Purge Meters**:
  - ½-in. FNPT
  - 10% Horizontal

- **Arma-View® II Purge Meters**:
  - ½-, ¾-in. FNPT
  - 5% Vertical

- **Armored Purge Meter**:
  - ½-, ¾-in. FNPT
  - 10% Horizontal

**Operating Temperature**

- **Glass-Tube Purge Meters**:
  - 93° C (200º F) air
  - 204° C (400º F) water

- **Armored Purge Meter**:
  - 93° C (200º F)

**Operating Temperature**

- **Glass-Tube Purge Meters**:
  - 20 bar (300 psi)
  - 93° C (200º F)

- **Armored Purge Meter**:
  - 100 bar (1500 psi)
  - 204° C (400º F)

**Varea-Meter®**

**Flowmeters**

*for Metering and Controlling Flows of Process Fluids*
Glass-Tube, Stainless-Frame Purge Meter
These glass-tube purge meters have a stainless-steel frame, available in ½-inch and 3-inch scale lengths, and a high-visibility bezel for accurate, repeatable performance. Meters are equipped with flow controllers and plastic bezels for flush mounting (but available with 1½-inch scale purge meters). Request Literature #CF 050.100.000.UA.PS

Arma-View® II Purge Meter
Low-flow, high-temperature and pressure applications use with glass-tube purge meters. Request Literature #CF 050.100.000.UA.PS

Glass-Tube Varea-Meter® Flowmeter
These stainless-steel float and tube meters are available in ½-, ¾-, 1-, and 1½-inch scales. End fittings for vertical and horizontal connections come in NPT styles. Sizes of wetted parts materials such as 316 stainless, Hastelloy®, Kynar®, and Viton® give a good balance between cost and maximum corrosion resistance. Request Literature #CF 050.100.000.UA.PS

Series 5700 General Purpose Flow Controller
Series 5700 general purpose flow controllers are ideally suited for use on Arma-View Purge Meters, Arma-View Flowmeters, and Glass Tube Varea-Meter® units as a standalone controller with other meter types.

Armored Flowmeter
The Varea-Com™ transmitter provides linear 4-20mA signal proportional to flow rate. The transmitter comes in a NEMA® 4X enclosure and Series 5600, UL® listed for hazardous locations.

Series 5750 and 5800 Purge Flow Controllers - High Pressure and Low Flow
Series 5750 purge-type flow controller is designed for control of low-volume flows. It can be assembled to purge meters or corrosion-resistant 1 meters or as a standalone unit in the process line.

External Flow Switch
This optional compact switch gives reliable high- and low-flow switching. It contains a powerful, rotating magnet that requires little to no fluid movement. Switches are single or tripping, hemispherically-wound reed types. Almost frictionless rotation of the switch magnet and its powerful bond with the float magnet give a dependable magnetic coupling. Even under sudden flow surges, switching remains reliable. Switches can be set to open on close on increasing or decreasing flow. The flow switch is available as Series 5600, general purpose unit in a NEMA® 4X enclosure and Series 5750, UL® listed for hazardous locations.
Our broad line of rotameter-type flowmeters provides reliable readout, transmission, and control of liquids or gases for most industrial process applications.

**Product Descriptions**

**Glass-Tube, Stainless-Frame Purge Meter**
These glass-tube meters have a rugged stainless steel frame, available in 1½-inch and 3-inch scale ratings, and are readily adapted to liquid-level, pressure and temperature applications. Armored purge meters are designed for purging applications. They can be assembled to purge meters or as a stand-alone in the process line.

**Armed Purge Meter**
This armored purge meter operates over a 10:1 range. Scales are 1½ inches long. The ½-inch meter has a GMN or SCFM scale, the 1-inch meter a GPM or SCF scale. Each size has a percent scale. Construction of meter body is 316 stainless steel with Buna-N and TFE. Heavy-duty stainless steel construction ensures proper operation over 500°F (130 gpm) and -4°F. At no time is the glass tube exposed to the process fluid. A stainless steel sheet encloses the ½-inch rotameter glass tube. Flow switch available.

**Glass-Tube Varea-Meter® Flowmeter**
These rotameters have a wide range of capacities and tube sizes. Metering accuracy is 2% of full scale over a 10:1 range (low Capacity Chart for pressure and temperature limits). Beaded-guide tubes are available with 5- or 10-inch scales. End fittings for vertical and horizontal connections come in NPT sizes. Choice of wetted parts materials include 316 stainless steel with Buna-N and Viton® O-rings. The float has an encapsulated alnico magnet. These glass-tube meters have a rugged stainless-steel frame, available in 1½- and 3-inch scale purge meter. Request literature #CF.520.100.000.UA.PS.

**Arma-View® II Purge Meter**
Low-flow, high-temperature and pressure applications available with optional 4-20mA transmitter and flow controller. An optional FA-approved linear 4-20 mA flow controller provides remote indication of flow rate. An optional purge-type flow controller keeps flow constant regardless of pressure variations. It is offered in 1½-inch stainless steel construction, for fixed and variable output configurations. It can be assembled to the meter as a stand-alone in the process line.

**Armored Flowmeter**
The Varea.com transmitter provides linear 4-20 mA signal proportional to flow rate. This transmitter contains a low-cost flowsensor with a 10:1 dynamic range (flow capacity chart for pressure and temperature limits). Optimal scaling includes an over-range signal greater than 50% of full scale. The transmitter’s FM approval is for use in hazardous areas.

**Metal-Tube Varea-Meter® Flowmeter**
The Series 5700 General Purpose Flow Controllers are ideally suited for use on Armed Purge Meters, Armored Flow Meters, and Glass-Tube Varea-Meter® units as a stand-alone or in combination with other meter types.

**Series 5750 Purpose Flow Controller**
The Series 5750 Purge-type flow controllers are ideally suited for use on Armed Purge Meters, Armored Flow Meters, and Glass-Tube Varea-Meter® units as a stand-alone or in combination with other meter types.

**Series 5750 and 5800 Purge Flow Controllers - High Pressure and Low Flow**
Series 5750 purge-type flow controller is designed for control of low-volume flows. It can be assembled to purge meters or serves as a stand-alone in the process line.

**External Flow Switch**
This optional compact switch gives reliable high- and low-flow switching. It contains a powerful, rotating magnet that responds linearly to flow position. Switches are single or two-way, hemispherically wound reed types.

**External Electronic Transmitter**
The Series 5800 transmitter provides linear 4-20 mA signal proportional to flow rate. This transmitter contains a low-cost flow sensor with a 10:1 dynamic range (flow capacity chart for pressure and temperature limits). Moody’s electronic transmitter features a wide dynamic capture range without sacrificing accuracy.

**Accessories**

**Series 5700 General Purpose Flow Controller**
Series 5700 General Purpose Flow Controllers are ideally suited for use on Armed Purge Meters, Armored Flow Meters, and Glass-Tube Varea-Meter® units as a stand-alone or in combination with other meter types.
Our broad line of rotameter-type flowmeters provides reliable readout, transmission, and control of liquids or gases for most industrial process applications.

For low-capacity, low-pressure applications we offer glass tube purge meters with stainless steel frames. Purge meters are designed for purging instruments, valves, and control lines, and are readily adapted to liquid-level indication, sampling, liquid-specific process instruments, cases, and control lines, regardless of pressure variations. It is equipped with stainless steel frames, available in 1½- inch and 2-inch scale lengths, and uses a high-stability float for accurate, repeatable performance. Meters can be supplied with flow controllers and plastic boxes for flush mounting (not available with 1½-inch purge meters).

Request literature #CF.510.100.000.UA.PS

Arma-View® II Purge Meter
Low-flow, high-temperature and pressure flow controllers and plastic boxes for flush mounting. Meters can be supplied with flow controllers and plastic boxes for flush mounting (not available with 1½-inch purge meters).

Request literature #CF.510.100.000.UA.PS

Armored Purge Meter
This armored purge meter operates over a 10:1 range. Scales are ½-inch inside long. The 1½-inch purge meter has a gage of 0-150 SCFH scale. The Antron® coated float is made of Kynar® or Polypropylene.

Request literature #CF.520.100.000.UA.PS

Helmet-Purge Meter
This armored flow controller keeps flow constant against pressures or variations. It is offered in 316 stainless steel for corrosion-resistant properties. It is available with a variety of tube sizes and configurations. It can be assembled to the meter as a stand-alone unit in the process line.

Request literature #CF.520.205.000.UA.PS

Ultra-View® II Purge Meter
High-pressure, high-temperature and pressure flow controllers and plastic boxes for flush mounting. Meters can be supplied with flow controllers and plastic boxes for flush mounting (not available with 1½-inch purge meters).

Request literature #CF.550.200.000.UA.PS

Metal-Tube Varea-Meter® Flowmeter
These meters are available in 316 stainless steel, and are readily adapted to liquid-level indication, sampling, liquid-specific process instruments, cases, and control lines. A gasketed cast-aluminum case provides reliable long-term performance in gas or liquid service.

Request literature #CF.530.00.000.UA.PS

Electrical Transmitter
This transmitter is engineered specifically for use with glass-tube purge meters. It contains a powerful, rotating magnet that provides reliably for flow. The gasketed cast-aluminum case is compact, and tested NAMUR-EMI and FIM-approvals for hazardous areas. The transmitter is a smart, microprocessor-based, 2-wire, low-power device. Its patented sensor with automatic gain control enables a high dynamic capture range without sacrificing accuracy.

Request literature #CF.570-110-88.UA.PS

Type flow controller keeps flow constant against pressures or variations. It is offered in 316 stainless steel for corrosion-resistant properties. It is available with a variety of tube sizes and configurations. It can be assembled to the meter as a stand-alone unit in the process line.

Request literature #CF.530.00.000.UA.PS

Metal-Tube Varea-Meter® Flowmeter
These meters are available in 316 stainless steel, and are readily adapted to liquid-level indication, sampling, liquid-specific process instruments, cases, and control lines. A gasketed cast-aluminum case provides reliable long-term performance in gas or liquid service.

Request literature #CF.530.00.000.UA.PS

Electrical Transmitter
This transmitter is engineered specifically for use with glass-tube purge meters. It contains a powerful, rotating magnet that provides reliably for flow. The gasketed cast-aluminum case is compact, and tested NAMUR-EMI and FIM-approvals for hazardous areas. The transmitter is a smart, microprocessor-based, 2-wire, low-power device. Its patented sensor with automatic gain control enables a high dynamic capture range without sacrificing accuracy.

Request literature #CF.570-110-88.UA.PS

External Flow Switch
A compact, low-flow switch is available as Series 5600, general purpose unit in a NAD® 4X enclosure and Series 5700, UL® listed for hazardous locations.
### Liquid and Gas Flowmeters

#### Accuracy of Full Scale (± %)

<table>
<thead>
<tr>
<th>Purge Meters</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
</tr>
</thead>
<tbody>
<tr>
<td>±Full Scale</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>

#### Connections

<table>
<thead>
<tr>
<th>Purge Meters</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼-in. FNPT</td>
<td>⅜-in. FNPT</td>
<td>½-, ¾-in. FNPT</td>
<td>½-, 1-, 1½-, 2-in. FNPT</td>
<td>½-, 1-, 1½-, 2-in. FNPT</td>
<td>½-, 1-, 1½-, 2-in. FNPT</td>
<td>½-, 1-, 1½-, 2-in. FNPT</td>
</tr>
</tbody>
</table>

#### Maximum Operating Pressure

<table>
<thead>
<tr>
<th>Purge Meters</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 bar</td>
<td>100 bar</td>
<td>100 bar</td>
<td>121° C</td>
<td>204° C</td>
<td>204° C</td>
<td>204° C</td>
</tr>
</tbody>
</table>

#### Maximum Operating Temperature

<table>
<thead>
<tr>
<th>Purge Meters</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
<th>Glass-Tube</th>
<th>Stainless-Frame</th>
<th>Armored</th>
</tr>
</thead>
<tbody>
<tr>
<td>(250 psi)</td>
<td>(1500 psi)</td>
<td>(250º F)</td>
<td>(400º F)</td>
<td>(250º F)</td>
<td>(400º F)</td>
<td>(400º F)</td>
</tr>
</tbody>
</table>

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### Varea-Meter® Flowmeters

Varea-Meter® Flowmeters

for Metering and Controlling Flows of Process Fluids

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### Liquid Capacity Chart

| GPH Capacities - Meter Type and Size

<table>
<thead>
<tr>
<th>Glass-Tube Purge Meters</th>
<th>Stainless-Frame Purge Meters</th>
<th>Armored Purge Meters</th>
<th>Armored Flowmeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>11</td>
<td>0</td>
<td>55</td>
</tr>
<tr>
<td>0</td>
<td>100</td>
<td>1,000</td>
<td>10,000</td>
</tr>
</tbody>
</table>

### Gas Capacity Chart

| SCFH Capacities - Meter Type and Size

<table>
<thead>
<tr>
<th>Glass-Tube Purge Meters</th>
<th>Stainless-Frame Purge Meters</th>
<th>Armored Purge Meters</th>
<th>Armored Flowmeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>2.5</td>
<td>25</td>
<td>250</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>250</td>
<td>2,500</td>
</tr>
<tr>
<td>0.5</td>
<td>5</td>
<td>50</td>
<td>500</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>100</td>
<td>1,000</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>200</td>
<td>2,000</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
<td>300</td>
<td>3,000</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>400</td>
<td>4,000</td>
</tr>
</tbody>
</table>

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For more information, contact UGSI Chemical Feed, Inc. at 1901 West Garden Road, Vineland, NJ 08369.
### Liquid and Gas Flowmeters

#### Accuracy of Full Scale (±% of Reading)

<table>
<thead>
<tr>
<th>Component</th>
<th>Accuracy of Full Scale (±% of Reading)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass-Tube Purge Meters</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Stainless-Frame Glass-Tube Purge Meters</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Armored Glass-Tube Purge Meters</td>
<td>±0.25%</td>
</tr>
<tr>
<td>Glass-Tube Varea-Meter® Flowmeters</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Stainless-Frame Glass-Tube Varea-Meter® Flowmeters</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Armored Glass-Tube Varea-Meter® Flowmeters</td>
<td>±0.25%</td>
</tr>
<tr>
<td>Metal-Tube Varea-Meter® Flowmeters</td>
<td>±0.5%</td>
</tr>
</tbody>
</table>

#### Connections: Maximum Operating Pressure: Maximum Operating Temperature:

<table>
<thead>
<tr>
<th>Component</th>
<th>Connections: Maximum Operating Pressure: Maximum Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass-Tube Purge Meters</td>
<td>¼-in. FNPT (17 bar, 250º F)</td>
</tr>
<tr>
<td>Stainless-Frame Glass-Tube Purge Meters</td>
<td>½-, ¾-, 1-in. FNPT (100 bar, 1500 psi, 400º F)</td>
</tr>
<tr>
<td>Armored Glass-Tube Purge Meters</td>
<td>½-, ¾-, 1-in. FNPT (100 bar, 1500 psi, 400º F)</td>
</tr>
<tr>
<td>Glass-Tube Varea-Meter® Flowmeters</td>
<td>½-, 1-, 1½-, 2-in. FNPT (20 bar, 300 psi, 200º F)</td>
</tr>
<tr>
<td>Stainless-Frame Glass-Tube Varea-Meter® Flowmeters</td>
<td>½-, 1-, 1½-, 2-in. FNPT (20 bar, 300 psi, 200º F)</td>
</tr>
<tr>
<td>Armored Glass-Tube Varea-Meter® Flowmeters</td>
<td>½-, 1-, 1½-, 2-in. FNPT (20 bar, 300 psi, 200º F)</td>
</tr>
<tr>
<td>Metal-Tube Varea-Meter® Flowmeters</td>
<td>½-, 1-, 1½-, 2-in. Flange (82 bar, 1200 psi, 600º F)</td>
</tr>
</tbody>
</table>

**Liquid Capacity Chart**

GPH Capacities - Meter Type and Size

**Gas Capacity Chart**

SCFM Capacities - Meter Type and Size

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**Varea-Meter® Flowmeters**

for Metering and Controlling Flows of Process Fluids