Evans PW/PWT Series
1/2” thru 4” PCWS/R Hook-Up Sticks

Evans Custom Water Stick Supply and Return Manifolds
Advantages of Evans PW Sticks vs. PVC fabricated

- Minimum 50% reduced footprint
- PCWS (12 fewer glue/NPT connections per stick)
- PCWR (10 fewer glue/NPT connections per stick)
- More compact/robust design
- Due to superior design sticks can be re-used
- One tag number per stick
- 100% tested at factory
- No glue joints
- Standardized design
- Reduced potential for airborne molecular contamination when gluing
- **Significant Cost Savings**

**Regulator Size**

Side by Side Comparison of 3/4” Evans PCW Regulator vs. Competitive 3/4” PVC Style

**Evans Integrated Pressure/Temperature Gauge**

“Bi-Dicator” 0-160psig / 0-140° F

Advantages of Evans Bi-dicator
- Replaces two devices with one
- Lower cost
- Fewer potential leak points
- Reduce overall footprint for tool hook-up
- Stainless case and stem

**Specifications: Evans PW Stick**

**Temperature Rating**: 10F(-12C) to 208F (98C)
**Pressure Rating**: 150 psig (10 bar) @ 70F (21C)
**Regulator Outlet Range**: 10 psig (.5bar) to 110 psig (7.6 bar)
(Supply) Stick with Ball Valve- Regulator- Pressure/ Temperature Measurement

(OPTIONAL) REGULATOR ORIENTATION (PTN or G160N)

Regulator Pressure Adjustment Knob (180° Orientation)

(OPTIONAL) Y- STRAINER

Dimensional E to E Tolerances +/- .20"

Y-STRAINER MESH OPTIONS

<table>
<thead>
<tr>
<th>Mesh</th>
<th>Microns</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 MESH</td>
<td>841 Microns</td>
</tr>
<tr>
<td>100 MESH</td>
<td>149 Microns</td>
</tr>
</tbody>
</table>

Bill of Materials

18. PRV Cap
17. O-Ring Cap
16. Pressure Gauge Mounting Cap
15. Pressure Gauge Mounting Cap O-Ring
14. PRV Oktuator
13. Rubber Disk
12. Disc Fixing Ring
11. PRV Stem
10. PRV Body Kit + SS seats
9. Piston O-Ring
8. Piston
7. PRV Diaphragm
6. PRV Stainless Steel Fixing Diaphragm
5. PRV Plate
4. PRV Spring
3. PRV Spring Calibration Plug
2. Spring Housing
1. Calibration Bolt & Nut Kit

Evans PW Series Regulator

Evans Components Inc.
7606 SW Bridgeport Road · Portland, Oregon 97224 USA
Phone 971-249-1600 · Fax 971-249-1601 www.evanscomponents.com
Inlet Pressure 115 PSIG @ 70F, outlet set pressure 45 PSIG
### PCW-SUPPLY Hook-Up Stick Part Number Matrix

<table>
<thead>
<tr>
<th>PW</th>
<th>16</th>
<th>STR</th>
<th>PLT</th>
<th>VE 16 HB</th>
<th>HF</th>
<th>PTN</th>
<th>G160</th>
<th>OH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

#### 1. Series Designator
- PW: Pipe Series
- PWT: Tube Series for Hose Barb, Presslok and tube size sticks

#### 2. Stick/Valve Size
- **08 - 1/2'':** 32 - 2''
- **12 - 3/4'':** 40 - 2-1/2''
- **16 - 1'':** 48 - 3''
- **24 - 1 1/2'':** 64 - 4''

#### 3. First Component
- STR: SS Ball Valve

#### 4. Inlet Connection Type
- **G5:** 304L Sch. 5 Pipe
- **F:** Female NPT
- **M:** Male NPT
- **C:** Compression
- **PS:** PVC Pipe Socket SS Union
- **CS:** CPVC Pipe Socket SS Union
- **HB:** SS Hose Barb
- **RA:** SS Hose Barb w/ SS Union (reduced sizes 1-1/2'', 2'')
- **PL:** SS Presslok® (tube size)
- **PA:** Presslok® w/ SS Union
- **U:** 150# ANSI Flange
- **EA:** Pipe Socket w/ SS Union
- **TA:** Tube Stub w/ SS Union

#### 5. Additional Components (Optional)
- **VE:** Nickel Plated /PWEA Brass Regulator
- **20M:** Y Strainer (20 Mesh)
- **100M:** Y Strainer (100 Mesh)

#### 6. Outlet Connection Size (if differs from Stick/Inlet Size)
- **08 - 1/2'':** 32 - 2''
- **12 - 3/4'':** 40 - 2-1/2''
- **16 - 1'':** 48 - 3''
- **24 - 1 1/2'':**

#### 7. Outlet Connection Type
- **G5 -** 304L Sch. 5 Pipe
- **F -** Female NPT
- **M -** Male NPT
- **C -** Compression
- **PS -** PVC Pipe Socket SS Union
- **CS -** CPVC Pipe Socket SS Union
- **HB -** SS Hose Barb
- **RA -** SS Hose Barb w/ SS Union (reduced sizes 1-1/2'', 2'')
- **PL -** SS Presslok® (tube size)
- **PA -** Presslok® w/ SS Union
- **U -** 150# ANSI Flange
- **EA -** Pipe Socket w/ SS Union
- **TA -** Tube Stub w/ SS Union

#### 8. High Flow Regulator (Option)
- **HF -** High flow regulator (see regulator performance curve)

#### 9. Pressure/Temperature Gauge (Options)
- **PT -** Bidicator 0 - 160psi (0 - 11bar), 0 - 140F (-20 - 60C)
- **PTN -** Regulator oriented (pressure adjustment access on top), bidicator downstream of regulator (*See Page 3*)
- **G100 -** 0 to 100 psig (0 - 7 bar) Gauge
- **G160 -** 0 to 160 psig (0 - 11 bar) Gauge
- **G100N -** Regulator oriented (pressure adjustment access on top), pressure gauge downstream of regulator
- **PTT2 -** Pressure/temp. transducer, 0-150 psig /30F-175F, .2 to 10.2 VDC
- **PP -** Pete’s Plug (if oval handle is used, Pete’s Plug is located on downstream pipe extension)

#### 10. Options
- **IN -** Mountable PW Sticks for under raised floor or sub-fab utility racks requiring more than 26'' lengths
- **RK -** Mountable PW Sticks for racks w/ 2" straight sections for clamps on both ends
- **SH -** Short Locking Lever Handle
- **OH -** Oval Locking Handle
(Return) Stick with Globe Valve-Vertical/Horizontal Flow Meter- Pressure/Temperature Measurement

**PW-**-PEZF-GVPS-P*-PT

BIDICATOR-PRESSURE/TEMPERATURE GAUGE

GLOBE VALVE HANDLE W/LOCK OUT

EZ VIEW FLOW METER

NICKEL PLATED FNPT INLET END CONNECTION

SS GLOBE VALVE

PVC PIPE SOCKET UNION OUTLET END CONNECTION

**PW-**-BFMF-GVHB-F*-PT

BIDICATOR-PRESSURE/TEMPERATURE GAUGE

BIDICATOR-PRESSURE/TEMPERATURE GAUGE

PETE’S PLUG

GLOBE VALVE HANDLE W/ LOCK OUT

BRASS FLOW METER

BRASS FNPT INLET END CONNECTION

SS GLOBE VALVE

HOSE BARB OUTLET END CONNECTION

**PW-**-EZMF-GVC-P*-PT

EZ VIEW FLOW METER

GLOBE VALVE HANDLE W/ LOCK OUT

SS COMPRESSION FITTING OUTLET END CONNECTION

SS GLOBE VALVE

**PW-**-EZMHB-GVHB-P*-PT

EZ VIEW FLOW METER

GLOBE VALVE HANDLE W/ LOCK OUT

HOSE BARB INLET END CONNECTION

SS GLOBE VALVE

**PW-**-GV200-C

GLOBE VALVE HANDLE W/ LOCK OUT

SS GLOBE VALVE

SS COMPRESSION FITTING INLET END CONNECTION

SS COMPRESSION FITTING OUTLET END CONNECTION

**Evans Globe Valve CV**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>CV (Valve Fully Open)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>2.17</td>
</tr>
<tr>
<td>3/4”</td>
<td>3.51</td>
</tr>
<tr>
<td>1”</td>
<td>6.50</td>
</tr>
<tr>
<td>1.5”</td>
<td>17.43</td>
</tr>
<tr>
<td>2”</td>
<td>25.67</td>
</tr>
<tr>
<td>2.5”</td>
<td>58.00</td>
</tr>
<tr>
<td>3”</td>
<td>80.00</td>
</tr>
</tbody>
</table>

**Globe Valve Handle**

Lockout feature with tie-wrap / cable holes for lock-out

**Evans Globe Valve w/ Compression Ends**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>PART #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>PW-08GV200-C</td>
</tr>
<tr>
<td>3/4”</td>
<td>PW-12GV200-C</td>
</tr>
<tr>
<td>1”</td>
<td>PW-16GV200-C</td>
</tr>
</tbody>
</table>
PW SERIES (options)  PCWR Flow Meters

EZ- VIEW FLOW METER (EZM)

- 1/2” thru 2” Sticks
- EZ to Install, in any position (vertical or horizontal)
- Direct reading indication
- Accuracy within ±5% full scale

Specifications & Performance Data:

**Materials:**
- Polysulfone plastic body, piston and cone.
- T300-series stainless spring.
- Buna N flow indicator ring and pressure seals.
- Polypropylene limit indicators.
- PH15-7MO stainless retaining ring.

**Temperature/Pressure Range:**
- Pressure Rating: Liquid: 325 psi/ 22.4 bar maximum
- Pressure Drop: See Differential Charts
- Temperature Range: +32° F to 250° F (0°C to 121°C)
- Accuracy: ±5% of Full Scale
- Repeatability: ±1%
Specifications & Performance Data:
Accuracy: ±0.25%
Zero Tolerance: 1% FS for less than 1000 psig (60 bar)
Span Tolerance: 1% FS for less than 1000 psig (60 bar)
Response Time: 1ms
Long Term Stability: ±0.2% FS/YR Non-Cumulative
Fatigue Life: Over 100 M Cycles

Pressure/Temperature Output Range:
Pressure Range: 0 to 150psig (0 to 10bar)
Temperature Output Range: +32 to 176F (0 + 80C)
Accuracy: 3.5% of Temperature Span

Environmental Data:
Temperature Operating Range: -40 to 221F (-40 to 105F)
Approvals: CE, UL E312651

Physical Description:
Wetted Parts: 17-4 PH Stainless Steel (Diaphragm)
304 Stainless Steel Body

Electrical Data (Voltage)
Supply: 12 to 30 VDC
Output: 0.2 to 10.2 V

Flow Range Part Number Designator

<table>
<thead>
<tr>
<th>* Designator</th>
<th>Stick Size</th>
<th>Flow Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2:</td>
<td>1/2”</td>
<td>.75 - 7.5 GPM</td>
</tr>
<tr>
<td>T3:</td>
<td>1/2” or 3/4”</td>
<td>2 - 15 GPM</td>
</tr>
<tr>
<td>T4:</td>
<td>3/4” or 1”</td>
<td>0.6 - 3 GPM</td>
</tr>
<tr>
<td>T5:</td>
<td>1”</td>
<td>.75 - 7.5 GPM</td>
</tr>
<tr>
<td>T6:</td>
<td>1”</td>
<td>2 - 15 GPM</td>
</tr>
<tr>
<td>T7:</td>
<td>1”</td>
<td>3 - 30 GPM</td>
</tr>
<tr>
<td>T8:</td>
<td>1”</td>
<td>5 - 50 GPM</td>
</tr>
<tr>
<td>T9:</td>
<td>1- 1/2”</td>
<td>15 - 180 GPM</td>
</tr>
<tr>
<td>T10:</td>
<td>2”</td>
<td>15 - 180 GPM</td>
</tr>
<tr>
<td>T11:</td>
<td>2”</td>
<td>40 - 400 GPM</td>
</tr>
<tr>
<td>T12:</td>
<td>2”</td>
<td>40 - 400 GPM</td>
</tr>
<tr>
<td>T13:</td>
<td>2”</td>
<td>40 - 400 GPM</td>
</tr>
<tr>
<td>T14:</td>
<td>2”</td>
<td>40 - 400 GPM</td>
</tr>
<tr>
<td>T300:</td>
<td>3”</td>
<td>60-600 GPM</td>
</tr>
<tr>
<td>T400:</td>
<td>4”</td>
<td>100-1200 GPM</td>
</tr>
<tr>
<td>T600:</td>
<td>6”</td>
<td>200-2500 GPM</td>
</tr>
<tr>
<td>T800:</td>
<td>8”</td>
<td>12,000-120,000 GPM</td>
</tr>
</tbody>
</table>

Turbine Flow Meter (-TF)

Specifications
Accuracy: ±1% of reading for 7/8” and larger meters ±1% of reading over the upper 70% of the measurement range for 1/2” and 3/4” meters

Repeatability: ±0.1%

Operating: -150°F to 350°F (-101°C to 177°C) standard

Temperature: Temperatures to +425°F (232°C) with high-temp pick-up

Turndown Ratio: About 10:1

Electrical Connector: 5-pin connector

Output: F to I frequency converter, 4-20 mA

*Optional 15’ cable w/5-pin connector (Part # BC-15)
(Return) Stick with Globe Valve & Vertical *only* Flow Meter

**Flow Meter Ranges/Part Number Designator**

<table>
<thead>
<tr>
<th>Designator</th>
<th>Size</th>
<th>Flow Range</th>
<th>Designator</th>
<th>Size</th>
<th>Flow Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>V3</td>
<td>1/2”</td>
<td>0.5 - 5 GPM / (2 - 18 LPM)</td>
<td>V14</td>
<td>1”</td>
<td>2 - 20 GPM / (8 - 76 LPM)</td>
</tr>
<tr>
<td>V4</td>
<td>1/2”</td>
<td>1 - 10 GPM / (4 - 38 LPM)</td>
<td>V15</td>
<td>1”</td>
<td>3 - 30 GPM / (12 - 115 LPM)</td>
</tr>
<tr>
<td>V7</td>
<td>3/4”</td>
<td>1 - 10 GPM / (4 - 38 LPM)</td>
<td>V16</td>
<td>1”</td>
<td>4 - 40 GPM / (15 - 155 LPM)</td>
</tr>
<tr>
<td>V8</td>
<td>3/4”</td>
<td>2 - 20 GPM / (8 - 76 LPM)</td>
<td>V18</td>
<td>1.5”</td>
<td>3 - 30 GPM / (12 - 115 LPM)</td>
</tr>
<tr>
<td>V13</td>
<td>1”</td>
<td>1 - 10 GPM / (4 - 38 LPM)</td>
<td>V19</td>
<td>1.5”</td>
<td>4 - 40 GPM / (15 - 155 LPM)</td>
</tr>
</tbody>
</table>

(Return) Stick with Ultrasonic Flow Meter

**Flow Meter Ranges/Part Number Designator**

<table>
<thead>
<tr>
<th>Designator</th>
<th>Stick Size</th>
<th>Flow Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>1/2”</td>
<td>0.1-25 GPM</td>
</tr>
<tr>
<td>E2</td>
<td>1/2” x 3/4”</td>
<td>0.1-25 GPM</td>
</tr>
<tr>
<td>E3</td>
<td>3/4”</td>
<td>0.1-32 GPM</td>
</tr>
<tr>
<td>E4</td>
<td>1”</td>
<td>0.4-55 GPM</td>
</tr>
</tbody>
</table>
### PCW- RETURN Hook-Up Stick Part Number Matrix

<table>
<thead>
<tr>
<th>PW - 16 - SEZM **</th>
<th>HB - GV</th>
<th>PLT - P14</th>
<th>PT - IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

#### 1. Series Designator

**PW** - Pipe Series  
**PWT** - Tube Series for Hose barb, Presslok and tube size sticks

#### 2. Stick Size/Connection Size

<table>
<thead>
<tr>
<th>Size</th>
<th>Connection Size</th>
<th>Size</th>
<th>Connection Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>1/2&quot;</td>
<td>24</td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>08</td>
<td>1&quot;</td>
<td>28</td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>12</td>
<td>1 1/2&quot;</td>
<td>32</td>
<td>2&quot;</td>
</tr>
<tr>
<td>14</td>
<td>1 3/4&quot;</td>
<td>36</td>
<td>2 1/2&quot;</td>
</tr>
<tr>
<td>16</td>
<td>2&quot;</td>
<td>40</td>
<td>3&quot;</td>
</tr>
<tr>
<td>18</td>
<td>2 1/2&quot;</td>
<td>44</td>
<td>3 1/2&quot;</td>
</tr>
<tr>
<td>20</td>
<td>3&quot;</td>
<td>52</td>
<td>4&quot;</td>
</tr>
<tr>
<td>24</td>
<td>3 1/2&quot;</td>
<td>60</td>
<td>4 1/2&quot;</td>
</tr>
<tr>
<td>28</td>
<td>4&quot;</td>
<td>68</td>
<td>5&quot;</td>
</tr>
<tr>
<td>32</td>
<td>4 1/2&quot;</td>
<td>76</td>
<td>6&quot;</td>
</tr>
</tbody>
</table>

#### 3. First Component

- **BFM** - Brass Flow Meter  
- **SEZM** - Plastic Flow Meter w/Stainless Steel Ends  
- **VFM** - Vertical (only) Flow Meter Stainless Ends **  
- **TF** - SS Turbine Flow Meter, 4-20 mA **  
- **US** - Ultrasonic Flow Meter **

#### 4. Optional Inlet Connection Size if Differs from Outlet (see # 2 above)

- **G5** - 304L, Sch. 5 Pipe  
- **F** - Female NPT  
- **M** - Male NPT  
- **C** - Compression  
- **PS** - PVC Pipe Socket  
- **CS** - CPVC Pipe Socket  
- **HB** - SS Hose Barb  
- **RA** - SS Hose Barb w/ SS Union (reduced sizes 1-1/2", 2")  
- **PL** - SS Presslok® (tube size)  
- **U** - 150# ANSI Flange  
- **EA** - Pipe Socket w/ SS Union  
- **TA** - Tube Stub w/ SS Union

#### 5. Inlet Connection

- **GV** - SS Globe Valve  
- **STR** - SS Ball Valve

#### 6. Additional Component

- **GV** - SS Globe Valve  
- **STR** - SS Ball Valve

#### 7. Outlet Connection

- **G5** - 304L, Sch. 5 Pipe  
- **F** - Female NPT  
- **M** - Male NPT  
- **C** - Compression  
- **PS** - PVC Pipe Socket  
- **CS** - CPVC Pipe Socket  
- **HB** - SS Hose Barb  
- **RA** - SS Hose Barb w/ SS Union (reduced sizes 1-1/2", 2")  
- **PL** - SS Presslok® (tube size)  
- **PA** - SS Presslok® w/ SS Union  
- **U** - 150# ANSI Flange  
- **EA** - Pipe Socket w/ SS Union  
- **TA** - Tube Stub w/ SS Union

#### 8. Flow Range Polysulfone Flow Meter, (Brass, Nickel Plated Brass, or Stainless Connections)

<table>
<thead>
<tr>
<th>Flow Range Polysulfone Flow Meter</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F1</strong></td>
<td>1/2&quot;</td>
</tr>
<tr>
<td><strong>F2</strong></td>
<td>1/2&quot;</td>
</tr>
<tr>
<td><strong>F3</strong></td>
<td>1/2&quot;</td>
</tr>
<tr>
<td><strong>F4</strong></td>
<td>1/2&quot;</td>
</tr>
<tr>
<td><strong>F7</strong></td>
<td>3/4&quot;</td>
</tr>
<tr>
<td><strong>F8</strong></td>
<td>3/4&quot;</td>
</tr>
<tr>
<td><strong>F9</strong></td>
<td>3/4&quot;</td>
</tr>
<tr>
<td><strong>F13</strong></td>
<td>1&quot;</td>
</tr>
<tr>
<td><strong>F14</strong></td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

#### 9. Pressure Temperature/Regulator (Options)

- **PT** - Bidicator 0 - 160psi (0 - 11 bar), 0 - 140F (-20 - 60C)  
- **G100** - 0 to 100 psig (0 - 7 bar) Gauge  
- **G160** - 0 to 160 psig (0 - 11 bar) Gauge  
- **PP** - Pete's Plug  
- **PTT2** - Pressure/temp transducer, 0-150 psig/30F-175F, .2 to 10.2 VDC

#### 10. Options

- **IN** - Mountable PW Sticks for under raised floor or sub-fab utility racks requiring more than 26” lengths (sticks are approx. 30” OAL)
EVANS PW SERIES  

PCWS/R Hook-up Sticks

(-IN* option) Ease of Mounting (* longer lengths available)

Features:

- Additional length for ease of mounting to UNISTRUT under raised floor or sub-fab utility racks
- Standard lengths of approximately 26” inside fittings dimension.
- Optional Evans union hose barb fittings for ease of installation/removal
- 3D drawings available upon request
- Optional locking oval handles for PCWS ball valves

Optional Evans union hose barb end connections for easy removal.

Evans Components Inc.
7606 SW Bridgeport Road · Portland, Oregon 97224 USA
Phone 971-249-1600 · Fax 971-249-1601 www.evanscomponents.com