

# Stainless-steel Manifold Assembly, 1" with Flow Meter



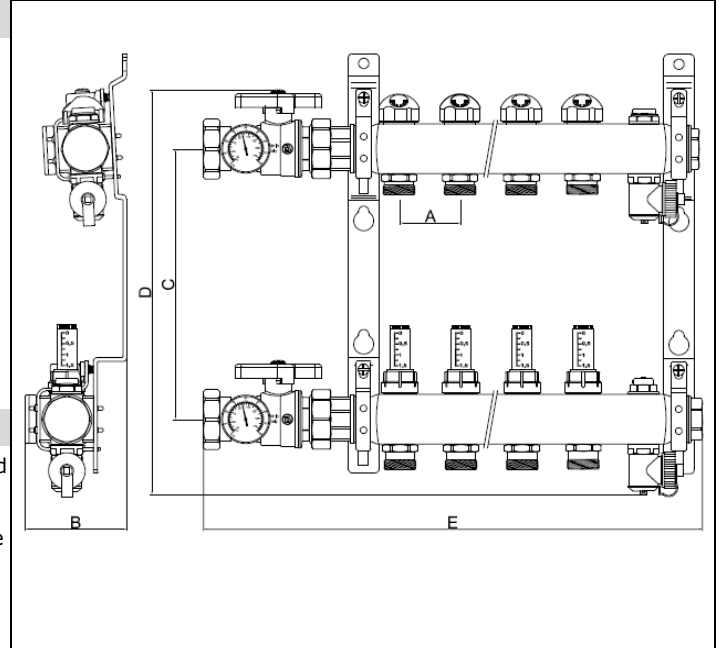
Submittal Information  
Revision B: Sept. 4, 2014

## Project Information

|                                |                   |
|--------------------------------|-------------------|
| Job Name:                      |                   |
| Location:                      | Part No. Ordered: |
| Engineer:                      | Date Submitted:   |
| Contractor:                    | Submitted By:     |
| Manufacturer's Representative: | Approved By:      |

## Technical Data

|                                                           |                                                                                |
|-----------------------------------------------------------|--------------------------------------------------------------------------------|
| Manifold Material:                                        | Stainless steel AISI304                                                        |
| Manifold Components:                                      | Brass CW614N-UNI EN12164,<br>CW617N-UNI EN12165                                |
| Manifold Body Size (I.D.):                                | 1"                                                                             |
| Manifold Assembly Loop Cv<br>(flow with valve wide open): | 1.1 Cv                                                                         |
| Manifold Body Threaded Connections:                       | R32                                                                            |
| Manifold Loop Threaded Connections:                       | R20                                                                            |
| Maximum Fluid Flow Rate:                                  | 14 GPM                                                                         |
| Hydrostatic Temp/Pressure Rating:                         | 68°F (20°C) at 145 psi<br>158°F (70°C) at 87.4 psi<br>194°F (90°C) at 43.8 psi |



## Product Information and Application Use

The 1" Stainless-steel Manifold Assembly with flow meter comes fully assembled and ready for installation. Use the included flow meters located on the supply manifold to balance the loops across the manifold. The return manifold comes equipped with isolation valves for easy loop isolation. For multiple zoning on the manifold, the black caps are removed and replaced with Uponor Thermal Actuators. The manifold body ends have R32 union connections and the loop outlets have R20 male threads. The included manifold supply and return ball valves come with an R32 x 1" NPT connection.

| ✓ | Description                                                                      | Part No. | A     | B     | C     | D      | E      | Weight     |
|---|----------------------------------------------------------------------------------|----------|-------|-------|-------|--------|--------|------------|
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 2 loops  | A2700202 | 1.97" | 3.27" | 8.90" | 13.19" | 12.03" | 7.72 lbs.  |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 3 loops  | A2700302 | 1.97" | 3.27" | 8.90" | 13.19" | 14.00" | 8.62 lbs.  |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 4 loops  | A2700402 | 1.97" | 3.27" | 8.90" | 13.19" | 15.97" | 9.52 lbs.  |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 5 loops  | A2700502 | 1.97" | 3.27" | 8.90" | 13.19" | 17.94" | 10.42 lbs. |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 6 loops  | A2700602 | 1.97" | 3.27" | 8.90" | 13.19" | 19.91" | 11.32 lbs. |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 7 loops  | A2700702 | 1.97" | 3.27" | 8.90" | 13.19" | 21.88" | 12.22 lbs. |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 8 loops  | A2700802 | 1.97" | 3.27" | 8.90" | 13.19" | 23.85" | 13.12 lbs. |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 10 loops | A2701002 | 1.97" | 3.27" | 8.90" | 13.19" | 27.79" | 14.92 lbs. |
|   | Stainless-steel Manifold Assembly, 1" with flow meter, B&I, ball valve, 12 loops | A2701202 | 1.97" | 3.27" | 8.90" | 13.19" | 31.73" | 16.72 lbs. |

## Installation

The 1" Stainless-steel Manifolds are fully assembled and ready for installation. Manifold assembly comes with mounting brackets, isolation valves, balancing valves, fill/purge ports, air vents, ball valves, temperature gauges and end caps. Manifold adapters and fittings are sold separately. For further information, refer to the Uponor Stainless-steel Manifold Installation Guide.

## Accessories and Replacement Parts

- A2771010: Mounting Bracket for Stainless-steel Manifold, 1", replacement part, set of 2
- A2771021: Stainless-steel Manifold Flow Meter 1.5 GPM Valve Body, replacement part
- A2771030: Stainless-steel Manifold Isolation Valve Body, replacement part
- A2771035: Stainless-steel Manifold Isolation Valve Body, O-ring, replacement part
- A2771040: Stainless-steel Manifold Replacement Gasket for R32 Union Connection
- A2771060: Spacer Ring VA10 for White Thermal Actuator

| Standards | Codes | Listings |
|-----------|-------|----------|
| N/A       | N/A   | N/A      |

## Related Applications

- Radiant Heating and Cooling Systems
- Snow and Ice Melting Systems
- Permafrost Protection Systems
- Turf Conditioning Systems

## Contact Information

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# Stainless-steel Manifold Assembly, 1¼" with Flow Meter



Submittal Information

Revision C: Nov. 12, 2015

## Project Information

Job Name:

Location: \_\_\_\_\_ Part No. Ordered: \_\_\_\_\_

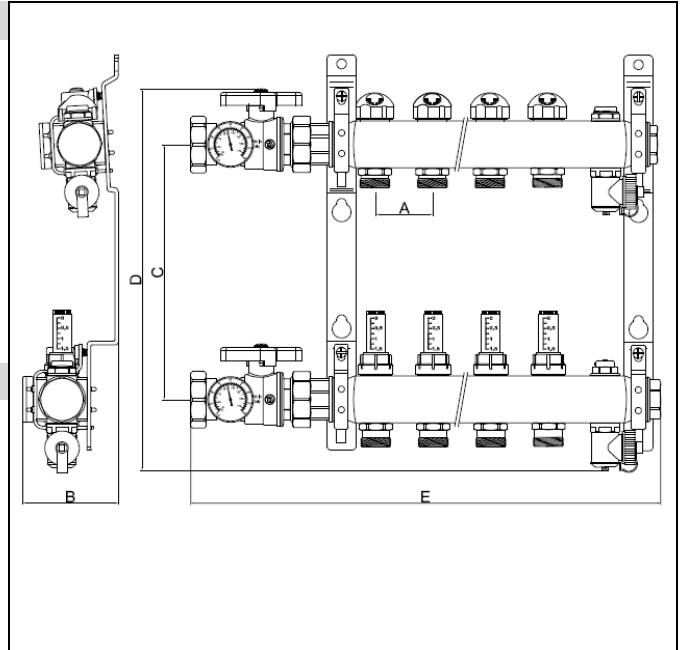
Engineer: \_\_\_\_\_ Date Submitted: \_\_\_\_\_

Contractor: \_\_\_\_\_ Submitted By: \_\_\_\_\_

Manufacturer's Representative: \_\_\_\_\_ Approved By: \_\_\_\_\_

## Technical Data

|                                                           |                                                 |
|-----------------------------------------------------------|-------------------------------------------------|
| Manifold Material:                                        | Stainless steel AISI304                         |
| Manifold Components:                                      | Brass CW614N-UNI EN12164,<br>CW617N-UNI EN12165 |
| Manifold Body Size (I.D.):                                | 1¼"                                             |
| Manifold Assembly Loop Cv<br>(flow with valve wide open): | 1.1 Cv                                          |
| Manifold Body Threaded Connections:                       | R32                                             |
| Manifold Loop Threaded Connections:                       | R20                                             |
| Maximum Fluid Flow Rate:                                  | 21 GPM                                          |
|                                                           | 68°F (20°C) at 145 psi                          |
| Hydrostatic Temp/Pressure Rating:                         | 158°F (70°C) at 87.4 psi                        |
|                                                           | 194°F (90°C) at 43.8 psi                        |



## Product Information and Application Use

The 1¼" Stainless-steel Manifold Assembly with flow meter comes fully assembled and ready for installation. Use the included flow meters located on the supply manifold to balance the loops across the manifold. The return manifold comes equipped with isolation valves for easy loop isolation. For multiple zoning on the manifold, the black caps are removed and replaced with Uponor Thermal Actuators. The manifold body ends have R32 union connections and the loop outlets have R20 male threads. The included manifold supply and return ball valves come with an R32 x 1" NPT or R32 x 1¼" NPT connection. **Note:** The 1¼" manifolds with 2 through 7 loops are strategically designed with 1" NPT ball valves to avoid adding extra costs while maintaining the maximum flow of the manifold assembly.

| ✓ | Description                                                                       | Part No. | A     | B     | C     | D      | E      | Weight     |
|---|-----------------------------------------------------------------------------------|----------|-------|-------|-------|--------|--------|------------|
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 2 loops  | A2720202 | 1.97" | 3.50" | 8.90" | 13.58" | 12.46" | 9.22 lbs.  |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 3 loops  | A2720302 | 1.97" | 3.50" | 8.90" | 13.58" | 14.43" | 10.12 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 4 loops  | A2720402 | 1.97" | 3.50" | 8.90" | 13.58" | 16.40" | 11.02 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 5 loops  | A2720502 | 1.97" | 3.50" | 8.90" | 13.58" | 18.37" | 11.92 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 6 loops  | A2720602 | 1.97" | 3.50" | 8.90" | 13.58" | 20.34" | 12.82 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 7 loops  | A2720702 | 1.97" | 3.50" | 8.90" | 13.58" | 22.31" | 13.72 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 8 loops  | A2720802 | 1.97" | 3.50" | 8.90" | 13.58" | 24.47" | 15.32 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 10 loops | A2721002 | 1.97" | 3.50" | 8.90" | 13.58" | 28.41" | 17.12 lbs. |
|   | Stainless-steel Manifold Assembly, 1¼" with flow meter, B&I, ball valve, 12 loops | A2721202 | 1.97" | 3.50" | 8.90" | 13.58" | 32.35" | 18.92 lbs. |

## Installation

The 1¼" Stainless-steel Manifolds are fully assembled and ready for installation. Manifold assembly comes with mounting brackets, isolation valves, balancing valves, fill/purge ports, air vents, ball valves, temperature gauges and end caps. Manifold adapters and fittings are sold separately. For further information, refer to the Uponor Stainless-steel Manifold Installation Guide.

## Accessories and Replacement Parts

- A2771011: Mounting Bracket for Stainless-steel Manifold, 1¼", replacement part, set of 2
- A2771021: Stainless-steel Manifold Flow Meter 2 GPM Valve Body, replacement part
- A2771030: Stainless-steel Manifold Isolation Valve Body, replacement part
- A2771035: Stainless-steel Manifold Isolation Valve Body, O-ring, replacement part
- A2771040: Stainless-steel Manifold Replacement Gasket for R32 Union Connection
- A2771060: Spacer Ring VA10 for White Thermal Actuator

## Standards

N/A

## Codes

N/A

## Listings

N/A

## Related Applications

- Radiant Heating and Cooling Systems
- Snow and Ice Melting Systems
- Permafrost Protection Systems
- Turf Conditioning Systems

## Contact Information

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## Stainless-steel Manifold Mounting Bracket

Submittal Information  
Revision A: May 12, 2014

### Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

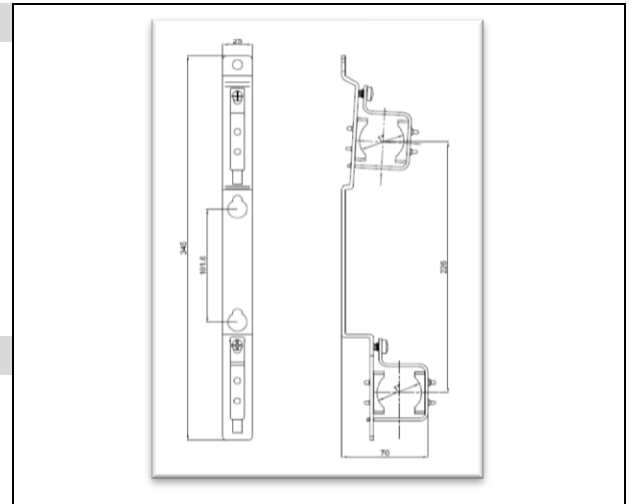
Submitted By:

Manufacturer's Representative:

Approved By:

### Technical Data

Material: Anodized carbon steel FeP11 - DD11



### Product Information and Application Use

The Stainless-steel Manifold Mounting Bracket is used to mount Uponor Stainless-steel Manifolds. Brackets are made of durable metal and are offset front-to-back and side-to-side for ease of installation. Two brackets are required for each manifold location.

| ✓ Description                                                                  | Part Number | Length | Width | Depth | Weight    |
|--------------------------------------------------------------------------------|-------------|--------|-------|-------|-----------|
| Mounting Bracket for Stainless-steel Manifold, 1", replacement part, set of 2  | A2771010    | 13.58" | 0.98" | 2.76" | 0.58 lbs. |
| Mounting Bracket for Stainless-steel Manifold, 1¼", replacement part, set of 2 | A2771011    | 13.58" | 0.98" | 3.30" | 0.63 lbs. |

### Installation

Attach the Uponor Stainless-steel Manifold to the mounting bracket. Attach the manifold and bracket assembly to the desired mounting surface. Use only Uponor Stainless-steel Manifolds. For further information, refer to the Uponor Stainless-steel Manifold Installation Guide.

### Standards

N/A

### Codes

N/A

### Listings

N/A

### Related Applications

Radiant Heating and Cooling Systems  
Snow and Ice Melting Systems  
Permafrost Protection Systems  
Turf Conditioning Systems

### Contact Information

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## Stainless-steel Manifold Flow Meter

Submittal Information  
Revision A: May 12, 2014

### Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

Approved By:

### Technical Data

#### Materials:

Axle material: Brass, heat-resistant plastic components

Spring material: Stainless steel

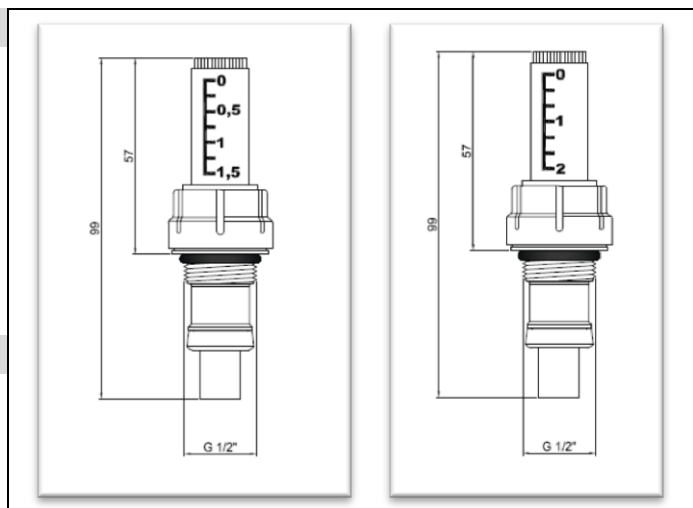
O-ring material: EPDM

Maximum test pressure: 145 psi

Maximum operating temperature/pressure: 158°F (70°C) at 87 psi

### Product Information and Application Use

Uponor's Stainless-steel Manifolds all come standard with balancing valves and flow meters. These components are fixed to the supply side of the manifold and are used to balance and correct the flow of water or water/glycol mix through the manifold.



| ✓ Description                                                               | Part Number | Height | Width | Weight    |
|-----------------------------------------------------------------------------|-------------|--------|-------|-----------|
| Stainless-steel Manifold Flow Meter 1.5 GPM<br>Valve Body, replacement part | A2771020    | 3.90"  | 1.18" | 0.13 lbs. |
| Stainless-steel Manifold Flow Meter 2 GPM<br>Valve Body, replacement part   | A2771021    | 3.90"  | 1.18" | 0.13 lbs. |

### Installation

To operate the flow meter, remove the plastic cover by pulling up, then rotate the flow meter either clockwise to restrict flow or counterclockwise to open. Once desired location is achieved, replace the plastic cap to lock the flow meter back in place. For more information, refer to the Uponor Stainless-steel Manifold Installation Guide.

### Standards

N/A

### Codes

N/A

### Listings

N/A

### Related Applications

Radiant Heating and Cooling Systems  
Snow and Ice Melting Systems  
Permafrost Protection Systems  
Turf Conditioning Systems

### Contact Information

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## Stainless-steel Manifold Supply and Return Ball Valves

Submittal Information  
Revision A: May 22, 2014

### Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

Approved By:

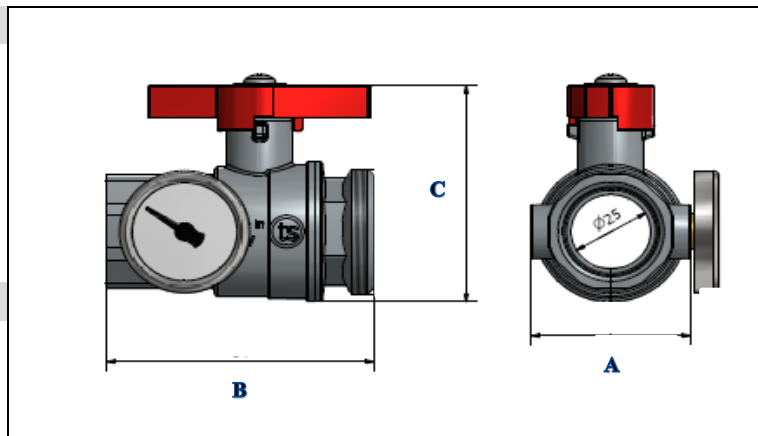
### Technical Data

Material: CW617N-UNI EN12165, CW614N-UNI EN 12164

Maximum Working Temp/Pressure: 210°F (99°C) at 145 psi

Connection: R32 Mx F

Cv Value: 20



### Product Information and Application Use

Uponor Stainless-steel Manifold Supply and Return Ball Valves are R32 male by 1" FNPT or R32 male by 1/4" FNPT that fit directly on the Stainless-steel Manifold assemblies. The ball valves come standard with temperature gauges for easy visual check of supply and return temperatures.

### ✓ Description

| Description                                                                                       | Part Number | A     | B     | C     | Weight     |
|---------------------------------------------------------------------------------------------------|-------------|-------|-------|-------|------------|
| Stainless-steel Manifold Supply and Return 1" NPT Ball Valve with Temperature Gauge, set of 2     | A2771251    | 2.12" | 3.40" | 2.88" | 2.32 lbs.  |
| Stainless-steel Manifold Supply and Return 1-1/4" NPT Ball Valve with Temperature Gauge, set of 2 | A2771252    | 2.62" | 3.59" | 3.30" | 3.02 lbs.  |
| Stainless-steel Manifold Temperature Gauge, set of 2                                              | A2770132    | N/A   | N/A   | N/A   | 0.06 lbs.  |
| Stainless-steel Manifold Replacement Gasket for R32 Union Connection                              | A2771040    | N/A   | N/A   | N/A   | 0.003 lbs. |

### Installation

Thread the supply ball valve into the supply manifold and the return ball valve into the return manifold by using the supplied gaskets. For further information, refer to the Uponor Stainless-steel Manifold Installation Guide.

### Standards

N/A

### Codes

N/A

### Listings

N/A

### Related Applications

Radiant Heating and Cooling Systems  
Snow and Ice Melting Systems  
Permafrost Protection Systems  
Turf Conditioning Systems

### Contact Information

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## Stainless-steel Manifold Isolation Valve Body

Submittal Information  
Revision A: May 12, 2014

### Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

Approved By:

### Technical Data

#### Materials:

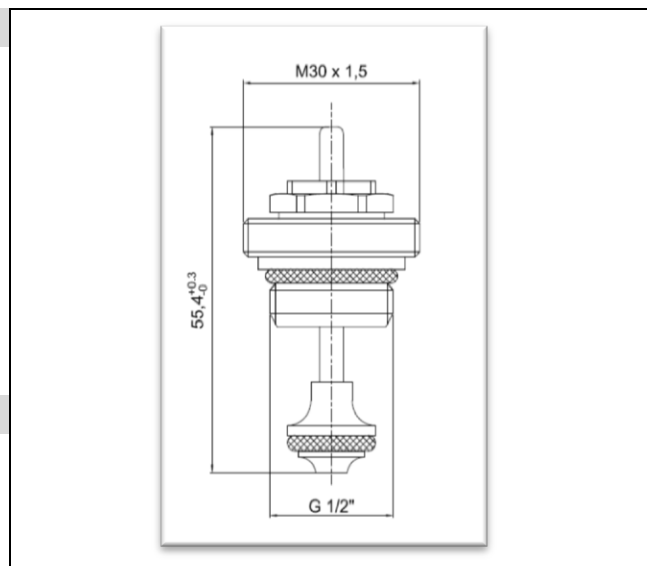
|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Axle material (valve body):   | Brass CW614N-UNI EN 12164                     |
| Axle material (cap):          | Acrylonitrile butadiene styrene (ABS) plastic |
| Spring material (valve body): | Stainless steel                               |
| O-ring material (valve body): | EPDM 70SH                                     |

Maximum test pressure: 145 psi

Maximum operating temperature/pressure: 158°F (70°C) at 87 psi

### Product Information and Application Use

Uponor's Stainless-steel Manifolds all come standard with isolation valves for easy loop isolation. These components are fixed to the return side of the manifold and are used to shut off the flow of water or water/glycol mix through the manifold port.



| ✓ Description                                                           | Part Number | Height | Width | Weight     |
|-------------------------------------------------------------------------|-------------|--------|-------|------------|
| Stainless-steel Manifold Isolation Valve Body, replacement part         | A2771030    | 2.18"  | 1.18" | 0.15 lbs.  |
| Stainless-steel Manifold Isolation Valve Body, O-ring, replacement part | A2771035    | 0.669" | 0.79" | 0.001 lbs. |

### Installation

To operate the isolation valve on the Uponor Stainless-steel Manifold, twist the Stainless-steel Manifold On/Off Valve Plastic Cap clockwise to close and counterclockwise to open. For more information, refer to the Uponor Stainless-steel Manifold Installation Guide.

### Standards

N/A

### Codes

N/A

### Listings

N/A

### Related Applications

Radiant Heating and Cooling Systems  
Snow and Ice Melting Systems  
Permafrost Protection Systems  
Turf Conditioning Systems

### Contact Information

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## Two-wire Thermal Actuator for Stainless-steel Manifolds

Submittal Information

Revision A: April 30, 2015

### Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

Approved By:

### Technical Data

|                             |                |
|-----------------------------|----------------|
| Operating Voltage:          | 24VAC nominal  |
| Operating Range:            | 22V to 28V     |
| Maximum Close-off Pressure: | 45 psi         |
| Time to Open/Close:         | 3 to 5 minutes |
| Operating Current:          | 0.167A (167mA) |



### Product Information and Application Use

The Uponor Two-wire Thermal Actuator for Stainless-steel Manifolds is a slow-opening thermal actuator that mounts directly onto Uponor Stainless-steel Manifolds and connects to the Uponor Climate Control™ Zoning System C-55 Base Unit (A3601012). It provides individual loop flow control on a multi-zoned manifold.

| ✓ Description                                           | Part Number | Height | Width | Depth | Weight    |
|---------------------------------------------------------|-------------|--------|-------|-------|-----------|
| Two-wire Thermal Actuator for Stainless-steel Manifolds | A3030524    | 2.51"  | 1.58" | 1.58" | 0.22 lbs. |

### Installation

Mount directly onto the Uponor Stainless-steel Manifold. Refer to the Uponor Climate Control Zoning System Installation Guide for additional information.

### Standards

Class II wiring

### Codes

N/A

### Listings

N/A

### Related Applications

Radiant Heating and Cooling Systems  
 Snow and Ice Melting Systems  
 Permafrost Protection Systems  
 Turf Conditioning Systems

### Contact Information

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## Thermal Actuator, four-wire

Submittal information  
Revision B: Sept. 21, 2017

### Project information

Job name:

Location:

Part no. ordered:

Engineer:

Date submitted:

Contractor:

Submitted by:

Manufacturer's representative:

Approved by:

### Technical data

|                                     |                                               |
|-------------------------------------|-----------------------------------------------|
| Voltage:                            | 24VAC, +20% -10%                              |
| Start current:                      | <300 mA for 2 mins. (max.)                    |
| Working current/power:              | 1W                                            |
| End switch:                         | 24VAC, 0.5 A                                  |
| Switching current for micro switch: | 24VAC, 3 A resistive load, 1 A inductive load |
| Ambient temperature:                | 32°F to 140°F (0°C to 60°C)                   |
| Storage temperature:                | -13°F to 140°F (-25°C to 60°C)                |
| Fluid temperature:                  | 32°F to 212°F (0°C to 100°C)                  |
| Actuating force:                    | 100 N ±5%                                     |
| Housing material:                   | Polyamide light gray (RAL 7035)               |
| Cable length:                       | 36" (91.5 cm)                                 |



### Product information and application use

The Uponor Thermal Actuator, four-wire (A3023522) is a slow-opening thermal actuator that mounts directly onto the following Uponor radiant manifolds: TruFLOW™ Classic, TruFLOW Jr., Stainless-steel and Engineered Polymer (EP) Heating Manifold. The actuator provides individual loop flow control on a multi-zoned manifold and features an end switch for activation of relay (pump), heat plant or other auxiliary devices.

| ✓ | Description                 | Part number | Height | Width | Depth | Weight    |
|---|-----------------------------|-------------|--------|-------|-------|-----------|
|   | Thermal Actuator, four-wire | A3023522    | 2.5"   | 1.75" | 2.0"  | 0.32 lbs. |

### Installation

Install in the upright or horizontal position. During the initial install and after power comes on, turn on thermostats to activate and unlock the actuators. This may take in excess of six (6) minutes. Refer to the Uponor Radiant Floor Heating Installation Handbook for more information.

### Accessories

A2671300: EP Heating Manifold Actuator Adapter; A2771060: Spacer Ring VA10 for Stainless-steel Manifold; A2870100: Spacer Ring VA31H for TruFLOW Jr. and TruFLOW Classic Manifolds

### Standards

N/A

### Codes

N/A

### Listings

N/A

### Related applications

Radiant heating and cooling systems  
Snow and ice melting systems  
Permafrost protection systems  
Turf conditioning systems

### Contact information

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## Spacer Ring VA10 for Thermal Actuator

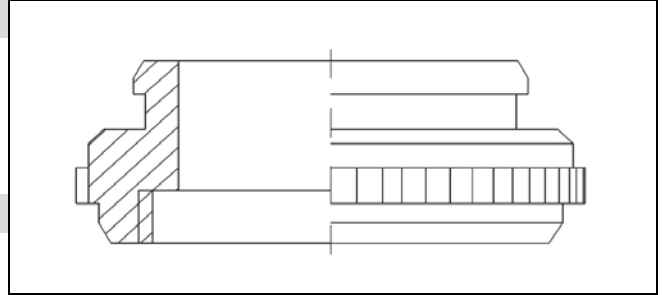
Submittal information  
Revision B: Sept. 21, 2017

### Project information

|                                |                   |
|--------------------------------|-------------------|
| Job name:                      |                   |
| Location:                      | Part no. ordered: |
| Engineer:                      | Date submitted:   |
| Contractor:                    | Submitted by:     |
| Manufacturer's representative: | Approved by:      |

### Technical data

Material: Heramid BKV



### Product information and application use

Spacer Ring VA10 for Thermal Actuator connects Uponor Thermal Actuator, four-wire (A3023522) onto the Uponor Stainless-steel Manifold.

| ✓ | Description                            | Part number | Height | Width | Weight    |
|---|----------------------------------------|-------------|--------|-------|-----------|
|   | Spacer Ring VA10 for Thermal Actuators | A2771060    | 0.43"  | 1.18" | 0.02 lbs. |

### Installation

Hand-tighten the spacer ring to the male thread on the manifold and connect the Thermal Actuator, four-wire (A3023522). For more information, refer to the Uponor Stainless-steel Manifold Installation Guide.

### Standards

N/A

### Codes

N/A

### Listings

N/A

### Related applications

Radiant heating and cooling systems  
Snow and ice melting systems  
Permafrost protection systems  
Turf conditioning systems

### Contact information

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## ProPEX® Ring

Submittal information  
Revision I: Nov. 1, 2018

### Project information

Job name:

Location:

Part no. ordered:

Engineer:

Date submitted:

Contractor:

Submitted by:

Manufacturer's representative:

Approved by:

### Technical data

Material: Engel-method crosslinked polyethylene (PEX-a)

Density: 926 to 940 kg/m<sup>3</sup>

Degree of crosslinking: 70% to 89%

### Product information and application use

Uponor ProPEX® rings are required to make a proper ProPEX connection.<sup>1</sup> The ProPEX ring with stop includes a leading edge chamfer and stop edge.



| ✓ Description                 | Part number | Length | I.D.  | O.D.  | Weight     |
|-------------------------------|-------------|--------|-------|-------|------------|
| ProPEX Ring, 3/8"             | Q4690302    | 0.54"  | 0.49" | 0.74" | 0.005 lbs. |
| ProPEX Ring with Stop, 1/2"   | Q4690512    | 0.63"  | 0.63" | 0.87" | 0.006 lbs. |
| ProPEX Ring with Stop, 5/8"   | Q4690625    | 0.79"  | 0.75" | 1.00" | 0.008 lbs. |
| ProPEX Ring with Stop, 3/4"   | Q4690756    | 0.87"  | 0.88" | 1.13" | 0.012 lbs. |
| ProPEX Ring with Stop, 1"     | Q4691000    | 1.10"  | 1.13" | 1.42" | 0.020 lbs. |
| ProPEX Ring with Stop, 1 1/4" | Q4691250    | 1.35"  | 1.38" | 1.66" | 0.030 lbs. |
| ProPEX Ring with Stop, 1 1/2" | Q4691500    | 1.61"  | 1.63" | 1.91" | 0.040 lbs. |
| ProPEX Ring with Stop, 2"     | Q4692000    | 1.97"  | 2.14" | 2.61" | 0.133 lbs. |
| ProPEX Ring with Stop, 2 1/2" | Q4692500    | 2.61"  | 2.66" | 3.25" | 0.230 lbs. |
| ProPEX Ring with Stop, 3"     | Q4693000    | 3.12"  | 3.16" | 3.87" | 0.400 lbs. |

### Installation

Square cut the Uponor PEX tubing. Remove excess material. Slide the ProPEX ring over the end of the tubing (maximum 1/8" over-hang for rings without stop). When using the ProPEX ring with stop, slide the ring on the tubing with the chamfered edge first until the end of the tubing contacts the stop edge. Expand the tubing and ring. If using the ProPEX Manual Expander Tool, rotate the tool a quarter turn after each expansion to prevent the formation of grooves. Remove the expansion tool and fully seat the tubing and ring against the shoulder of the fitting. Make ProPEX connections at temperatures above 5°F/-15°C. For more information, refer to the Uponor ProPEX Connections Instructional Guide.

### Listings<sup>2</sup>

cNSFus-fs<sup>3</sup>; cNSFus-pw; cNSFus-rfh; cQAlus; UL; CSA; PPI TR-4; ICC-ES; IAPMO; BMEC; CCMC; cQAlus P321

### Codes

ICC; IPC; IMC; IRC; UPC; UMC; NSPC; HUD; UFGS; NPC of Canada; NBC of Canada

### Standards

ANSI/NSF 14; ANSI/NSF 61; ASTM F876; ASTM F877; ASTM F1960; ASTM F2023; ASTM E84; CAN/ULC S102.2; ASTM E119/UL 263; CAN/ULC S101; ASTM E814/ULC S115; CSA B137.5; CSA B214; UL 1821<sup>3</sup>; ULC/ORD-C199P<sup>3</sup>

### Related applications

PEX-a plumbing systems  
AquaSAFE fire safety systems  
Hydronic radiant heating and cooling systems  
Snow melting systems  
Turf conditioning systems  
Permafrost prevention systems

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<sup>1</sup>ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

<sup>2</sup>Visit listing agency's website for complete information; <sup>3</sup>For 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2" tubing only