Watts Industries produces an extensive assortment of plastic check valves. These check valves can be found in water meters, shower and bath taps and safety units, but they are also used in boilers, hot water boilers, pumps and (underfloor) heating systems. The check valves are also used in industrial systems. This in-house production of check valves allows us to respond adequately to market developments, with new products and improvements on existing products.
EUROPEAN DIVISIONS OF WATTS WATER TECHNOLOGIES INC.

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<td>Chapter TO</td>
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<td>15</td>
<td><strong>WI - series</strong></td>
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</tr>
<tr>
<td>Chapter IN</td>
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<td>Chapter Tools</td>
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</table>
**CO 010 DN 8**

The Watts check valve type CO 010 with open shape, patented split valve stem and unique sealing principle offers outstanding performances. These check valves are used in plumbing fittings, sanitary taps and in threaded non-return valves where building codes and international standards are required.

### Technical specifications
- **Working pres.** PN10
- **Testing pres.** 1600 kPa
- **Closing pres.** 10 cm wc
- **Max. temp.** up to 90 °C
- **Diam. nominal** DN 8

### Approvals
- KIWA NL
- BELGAQUA BE
- DVGW D
- NF F
- WRAS UK
- ETA DK
- SITAC S
- NSF USA
- ABP D

### Material specifications
- **House** POM
- **Valve** POM
- **Torpedo** POM
- **Diaphragm** Rubber
- **O-ring** Rubber
- **Spring** Stainless Steel

Other diameters and other closing pressures on request.

### Pressure loss-curve

![Pressure loss-curve graph]
The Watts check valve type CO 013 with patented split valve stem and unique sealing principle offers outstanding performances. These check valves are used in plumbing fittings, sanitary taps and in threaded non-return valves where building codes and international standards are required.

### Technical specifications

- **Working pres.** PN10
- **Testing pres.** 1600 kPa
- **Closing pres.** 10 cm wc
- **Max. temp.** up to 90 °C
- **Diam. nominal** DN 10

### Material specifications

- **House** POM
- **Valve** POM
- **Torpedo** POM
- **Diaphragm** Rubber
- **O-ring** Rubber
- **Spring** Stainless Steel

### Approvals

- KIWA NL
- BELGAQUA BE
- DVGW D
- NF F
- WRAS UK
- ETA DK
- SITAC S
- NSF USA
- ABP D

Other diameters and other closing pressures on request.
CO 014 DN 10

The Watts check valve type CO 014 with open shape, patented split valve stem and unique sealing principle offers outstanding performances. These check valves are used in plumbing fittings, sanitary taps and in threaded non-return valves where building codes and international standards are required.

### Technical specifications

<table>
<thead>
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<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Working pres.</td>
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</tr>
<tr>
<td>Testing pres.</td>
<td>1600 kPa</td>
</tr>
<tr>
<td>Closing pres.</td>
<td>10 cm wc</td>
</tr>
<tr>
<td>Max. temp.</td>
<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>DN 10</td>
</tr>
</tbody>
</table>

### Material specifications

- **House**: POM
- **Valve**: POM
- **Torpedo**: POM
- **Diaphragm**: Rubber
- **O-ring**: Rubber
- **Spring**: Stainless Steel

### Approvals

- KIWA NL
- BELGAQUA BE
- DVGW D
- NF F
- WRAS UK
- ETA DK
- SITAC S
- NSF USA
- ABP D

Other diameters and other closing pressures on request.

---

**Mounting dimensions**

- max Ø 11.7
- Ø 14.0 ± 0.1
- Ø 14.5 ± 0.1
- 16.3 ± 0.1
- 0

**O-ring**

- Ø 10.82 ± 0.05
- 1.78

**Product dimensions**

- max 17.2
- max 21.2

---

**Pressure loss-curve**

![Pressure loss-curve graph](image)

- x-axis: flow (m³/h)
- y-axis: Delta P (kPa)
CO 015 DN 10

The Watts check valve type CO 015 with patented split valve stem and unique sealing principle offers outstanding performances. These check valves are used in plumbing fittings, sanitary taps and in threaded non-return valves where building codes and international standards are required.

### Technical specifications

- **Working pres.**: PN10
- **Testing pres.**: 1600 kPa
- **Closing pres.**: 10 cm wc
- **Max. temp.**: up to 90 °C
- **Diam. nominal**: DN 10

### Approvals

- KIWA NL
- BELGAQUA BE
- DVGW D
- NF F
- WRAS UK
- ETA DK
- SITAC S
- NSF USA
- ABP D

### Material specifications

- **House**: POM
- **Valve**: POM
- **Torpedo**: POM
- **Diaphragm**: Rubber
- **O-ring**: Rubber
- **Spring**: Stainless Steel

Other diameters and other closing pressures on request.

### Pressure loss-curve

![Pressure loss-curve graph]

Flow (m³/h) vs. Delta P (kPa)
CO 020 DN 15

The Watts check valve type CO 020 with patented split valve stem and unique sealing principle offers outstanding performances. These check valves are used in plumbing fittings, sanitary taps and in threaded non-return valves where building codes and international standards are required.

### Technical specifications

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Working pres.</td>
<td>PN10</td>
</tr>
<tr>
<td>Testing pres.</td>
<td>1600 kPa</td>
</tr>
<tr>
<td>Closing pres.</td>
<td>10 cm wc</td>
</tr>
<tr>
<td>Max. temp.</td>
<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>DN 15</td>
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### Approvals

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<td>Several approvals in progress</td>
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### Material specifications

<p>| | |</p>
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<thead>
<tr>
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<tbody>
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<td>POM</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>Rubber</td>
</tr>
<tr>
<td>O-ring</td>
<td>Rubber</td>
</tr>
<tr>
<td>Spring</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

Other diameters and other closing pressures on request.

### Pressure loss-curve

![Pressure loss-curve graph]
The Watts check valve type CS 015 is the latest generation of check valves. Not only do these check valves operate ideally, they also offer added advantages:
- identical contours in open and closed position (stem of valve doesn't protrude);
- variable outlet system, facing side or rear side.

The innovative use of materials in these valves renders them more resistant to both chemicals and high temperatures. The CS is also more compact than conventional check valves, and therefore easier to fit!

### Technical specifications

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>PN10</td>
<td>1600 kPa</td>
<td>30 cm wc</td>
<td>up to 90 °C</td>
<td>DN 10</td>
</tr>
</tbody>
</table>

### Material specifications

- **House**: PSU
- **Valve**: PSU
- **Torpedo**: PSU
- **O-ring**: NBR
- **Spring**: Stainless Steel

Other diameters and other closing pressures on request.

### Pressure loss-curve

![Pressure loss-curve graph]
**CS 100 DN 100**

The Watts check valve type CS 100 is the latest generation of check valves. Not only do these check valves operate ideally, they also offer added advantages:
- identical contours in open and closed position (stem of valve doesn’t protrude);
- variable outlet system, facing side or rear side.

The innovative use of materials in these valves renders them more resistant to both chemicals and high temperatures. The CS is also more compact than conventional check valves, and therefore easier to fit!

<table>
<thead>
<tr>
<th>Technical specifications</th>
<th>Approvals</th>
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<tbody>
<tr>
<td>Working pres.</td>
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</tr>
<tr>
<td>Testing pres.</td>
<td>DVGW D</td>
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<tr>
<td>Closing pres.</td>
<td>NF (in progress) F</td>
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<tr>
<td>Max. temp.</td>
<td>WRAS (in progress) UK</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>DN 100</td>
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</table>

**Material specifications**
- House: PPO
- Valve: PPO
- Torpedo: PPO
- O-ring: NBR
- Spring: Stainless Steel

Other diameters and other closing pressures on request.

**Pressure loss-curve**

![Diagram of Mounting example, O-ring, and Product dimensions](image-url)

![Diagram showing Pressure loss-curve](image-url)
The Watts check valve type CS 150 is the latest generation of check valves. Not only do these check valves operate ideally, they also offer added advantages:
- identical contours in open and closed position (stem of valve doesn't protrude);
- variable outlet system, facing side or rear side.

The innovative use of materials in these valves renders them more resistant to both chemicals and high temperatures. The CS is also more compact than conventional check valves, and therefore easier to fit!

### Technical specifications
- **Working pres.** PN16
- **Testing pres.** 2500 kPa
- **Closing pres.** 25 cm wc
- **Max. temp.** up to 90 °C
- **Diam. nominal** DN 150

### Material specifications
- **House** PPO
- **Valve** PPO
- **Torpedo** PPO
- **O-ring** NBR
- **Spring** Stainless Steel

Other diameters and other closing pressures on request.
**CS 250 DN 250**

The Watts check valve type CS 250 is the latest generation of check valves. Not only do these check valves operate ideally, they also offer added advantages:
- identical contours in open and closed position (stem of valve doesn’t protrude);
- variable outlet system, facing side or rear side.

The innovative use of materials in these valves renders them more resistant to both chemicals and high temperatures. The CS is also more compact than conventional check valves, and therefore easier to fit!

**Technical specifications**

<table>
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<th>Specification</th>
<th>Value</th>
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<tr>
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<td>Closing pres.</td>
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<td>Max. temp.</td>
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**Material specifications**

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
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<tbody>
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<td>House</td>
<td>PPO</td>
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<tr>
<td>Valve</td>
<td>PPO</td>
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<tr>
<td>Torpedo</td>
<td>PPO</td>
</tr>
<tr>
<td>O-ring</td>
<td>NBR</td>
</tr>
<tr>
<td>Spring</td>
<td>Stainless Steel</td>
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</tbody>
</table>

Other diameters and other closing pressures on request.

**Pressure loss-curve**

![Pressure loss-curve graph](image)
FI 010 DN 8

The Watts check valve type FI 010 is a perfect slide-in cartridge with added advantages. The best performance in those inlet sides where tightening has to be simple. It is marked by its unique construction and its universal applications.

<table>
<thead>
<tr>
<th>Technical specifications</th>
<th>Material specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working pres.</td>
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<tr>
<td>Test pres.</td>
<td>Valve</td>
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<td>Closing pres.</td>
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<td>Max. temp.</td>
<td>Diaphragm</td>
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<td>Diam. nominal</td>
<td>O-ring</td>
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<td></td>
<td>Spring</td>
</tr>
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<td>PN10</td>
<td>POM</td>
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<td>1600 kPa</td>
<td>POM</td>
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<tr>
<td>10 cm wc</td>
<td>POM</td>
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<tr>
<td>up to 90 °C</td>
<td>Rubber, SBR</td>
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<tr>
<td>DN 8</td>
<td>Rubber, NBR</td>
</tr>
<tr>
<td></td>
<td>Stainless Steel</td>
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</tbody>
</table>

Other diameters and other closing pressures on request.
**FI 015 DN 15**

The Watts check valve type FI 015 is a perfect slide-in cartridge with added advantages. The best performance in those inlet sides where tightening has to be simple. It is marked by its unique construction and its universal applications.

### Technical specifications
- **Working pres.** PN10
- **Testing pres.** 1600 kPa
- **Closing pres.** 10 cm wc
- **Max. temp.** up to 90 °C
- **Diam. nominal** DN 15

### Material specifications
- **House** POM
- **Valve** POM
- **Torpedo** POM
- **Diaphragm** Rubber, SBR
- **O-ring** Rubber, NBR
- **Spring** Stainless Steel

Other diameters and other closing pressures on request.
The Watts check valve type FO 015 is a perfect slide-in cartridge with added advantages. The best performance in those outlet sides where tightening has to be simple. It is marked by its unique construction and its universal applications.

### FO 015 DN 15

**Technical specifications**
- Working pres.: PN10
- Testing pres.: 1600 kPa
- Closing pres.: 10 cm wc
- Max. temp.: up to 90 °C
- Diam. nominal: DN 15

**Material specifications**
- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber, SBR
- O-ring: Rubber, NBR
- Spring: Stainless Steel

Other diameters and other closing pressures on request.
The Watts check valve type FO 020 is a perfect slide-in cartridge with added advantages. The best performance in those outlet sides where tightening has to be simple. It is marked by its unique construction and its universal applications.

### FO 020 DN 20

Other diameters and other closing pressures on request.

<table>
<thead>
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<th>Technical specifications</th>
<th>Material specifications</th>
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<tbody>
<tr>
<td>Working pres.</td>
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<tr>
<td>Testing pres.</td>
<td>Valve</td>
</tr>
<tr>
<td>Closing pres.</td>
<td>Torpedo</td>
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<tr>
<td>Max. temp.</td>
<td>Diaphragm</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>O-ring</td>
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<td>Spring</td>
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<tr>
<td>PN10</td>
<td>POM</td>
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<tr>
<td>1600 kPa</td>
<td>POM</td>
</tr>
<tr>
<td>10 cm wc</td>
<td>POM</td>
</tr>
<tr>
<td>up to 90 °C</td>
<td>Rubber, SBR</td>
</tr>
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<td>DN 20</td>
<td>Rubber, NBR</td>
</tr>
<tr>
<td></td>
<td>Stainless Steel</td>
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</tbody>
</table>

**Other diameters and other closing pressures on request.**

---

### Pressure loss-curve

![Pressure loss-curve graph](image)

![Mounting example](image)

![Product dimensions](image)
**FW 010 DN 10**

The Watts check valve type FW 010 shows the inventive solutions of Watts Ocean. Our R&D made it for our customers with the same performances they are used to. Other diameters and closing pressures are also possible.

### Technical specifications

| Working pres. | PN10  |
| Testing pres. | 1600 kPa |
| Closing pres. | 10 cm wc |
| Max. temp.    | up to 90 °C |
| Diam. nominal | DN 20 |

### Approvals

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<td>NF</td>
<td>F</td>
</tr>
<tr>
<td>ABP</td>
<td>D</td>
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### Material specifications

<p>| | |</p>
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<tbody>
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</tr>
<tr>
<td>Valve</td>
<td>POM</td>
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<tr>
<td>Torpedo</td>
<td>POM</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>Rubber, SBR</td>
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<tr>
<td>O-ring</td>
<td>Rubber, NBR</td>
</tr>
<tr>
<td>Spring</td>
<td>Stainless Steel</td>
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</tbody>
</table>

Other diameters and other closing pressures on request.

---

**Mounting example**

**Product dimensions**

**Pressure loss-curve**
The Watts check valve type FW 015 shows the inventive solutions of Watts Ocean. Our R&D made it for our customers with the same performances they are used to. Other diameters and closing pressures are also possible.

**Technical specifications**

<table>
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<th>Description</th>
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<tr>
<td>Closing pres.</td>
<td>10 cm wc</td>
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<tr>
<td>Max. temp.</td>
<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>DN 15</td>
</tr>
</tbody>
</table>

**Material specifications**

- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber, SBR
- O-ring: Rubber, NBR
- Spring: Stainless Steel

Other diameters and other closing pressures on request.

**Approvals**

- DVGW: D
- ABP: D

**Pressure loss-curve**

![Pressure loss-curve graph](#)
The Watts snap-in valve type IN 015 is a compact and therefore easy to install check valve. This check valve will meet amply all quality requirements. Its advantages are yours.

**Technical specifications**
- Working pres. PN10
- Testing pres. 1600 kPa
- Closing pres. 10 cm wc
- Max. temp. up to 90 °C
- Diam. nominal DN 15

**Material specifications**
- House POM
- Valve POM
- Torpedo POM
- Diaphragm Rubber
- O-ring Rubber
- Spring Stainless Steel

**Approvals**
- KIWA NL
- SITAC S
- DVGW D
- NF F
- WRAS UK
- ETA DK
- ABP D
- NSF USA

Other diameters and other closing pressures on request.

---

**Pressure loss-curve**

<table>
<thead>
<tr>
<th>Flow (m³/h)</th>
<th>0</th>
<th>0.4</th>
<th>0.8</th>
<th>1.2</th>
<th>1.6</th>
<th>2.0</th>
<th>2.4</th>
<th>2.8</th>
<th>3.2</th>
<th>3.6</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure (kPa)</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

---

**Mounting dimensions**

- **Ø 15.2 ± 0.1**
- **max Ø 11.5**
- **Ø 15.8 ± 0.1**
- **30°**
- **min 0.2**
- **Ø 12**
- **±0.3**
- **0.3**

**O-ring**

- **Ø 15.1 ± 0.05**
- **1.5**
- **12.2 ± 0.4**
- **17.0 ± 0.5**
- **23.0 ± 0.5**

**Product dimensions**
The Watts snap-in valve type IN 020 is a compact and therefore easy to install check valve. This check valve will meet amply all quality requirements. Its advantages are yours.

**Technical specifications**
- Working pres.: PN10
- Testing pres.: 1600 kPa
- Closing pres.: 10 cm wc
- Max. temp.: up to 90 °C
- Diam. nominal: DN 20

**Approvals**
- KIWA: NL
- SITAC: S
- DVGW: D
- NF: F
- WRAS: UK
- ETA: DK
- ABP: D
- NSF: USA

**Material specifications**
- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber
- O-ring: Rubber
- Spring: Stainless Steel

Other diameters and other closing pressures on request.

**Pressure loss-curve**

---

Flow (m³/h) vs. delta P (kPa) graph
The Watts snap-in valve type IN 025 is a compact and therefore easy to install check valve. This check valve will meet amply all quality requirements. Its advantages are yours.

### Technical specifications

| Working pres. | PN10 |
| Testing pres. | 1600 kPa |
| Closing pres. | 10 cm wc |
| Max. temp. | up to 90 °C |
| Diam. nominal | DN 25 |

### Material specifications

- **House**: POM
- **Valve**: POM
- **Torpedo**: POM
- **Diaphragm**: Rubber
- **O-ring**: Rubber
- **Spring**: Stainless Steel

Other diameters and other closing pressures on request.

### Pressure loss-curve

![Pressure loss-curve graph]

### Approvals

- KIWA NL
- SITAC S
- DVGW D
- NF F
- WRAS UK
- ETA DK
- ABP D
- NSF USA
The Watts snap-in valve type IN 032 is a compact and therefore easy to install check valve. This check valve will meet amply all quality requirements. Its advantages are yours.

### Technical specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working pres.</td>
<td>PN10</td>
</tr>
<tr>
<td>Testing pres.</td>
<td>1600 kPa</td>
</tr>
<tr>
<td>Closing pres.</td>
<td>10 cm wc</td>
</tr>
<tr>
<td>Max. temp.</td>
<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>DN 32</td>
</tr>
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</table>

### Material specifications

- **House**: POM
- **Valve**: POM
- **Torpedo**: POM
- **Diaphragm**: Rubber
- **O-ring**: Rubber
- **Spring**: Stainless Steel

Other diameters and other closing pressures on request.

### Pressure loss-curve

![Pressure loss-curve graph](image-url)

![Mounting dimensions](image-url)

![O-ring](image-url)

![Product dimensions](image-url)
IN 040 DN 40

The Watts snap-in valve type IN 040 is a compact and therefore easy to install check valve. This check valve will meet amply all quality requirements. Its advantages are yours.

Technical specifications
- Working pres.: PN10
- Testing pres.: 1600 kPa
- Closing pres.: 10 cm wc
- Max. temp.: up to 90 °C
- Diam. nominal: DN 40

Material specifications
- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber
- O-ring: Rubber
- Spring: Stainless Steel

Approvals
- KIWA: NL
- SITAC: S
- DVGW: D
- NF: F
- WRAS: UK
- ETA: DK
- NSF: in progress

Other diameters and other closing pressures on request.

Pressure loss-curve
The Watts snap-in valve type IN 050 is a compact and therefore easy to install check valve. This check valve will meet amply all quality requirements. Its advantages are yours.

**Technical specifications**
- **Working pres.** PN10
- **Testing pres.** 1600 kPa
- **Closing pres.** 10 cm wc
- **Max. temp.** up to 90 °C
- **Diam. nominal** DN 50

**Material specifications**
- **House** POM
- **Valve** POM
- **Torpedo** POM
- **Diaphragm** Rubber
- **O-ring** Rubber
- **Spring** Stainless Steel

Other diameters and other closing pressures on request.

**Pressure loss-curve**

![Graph showing pressure loss-curve](image)
To meet the ever increasing quality requirements, Watts developed the snap-in check valve type IO 015. The O-ring is already mounted on the check valve and keeps fixed, which creates an easy to fit check valve.

**Technical specifications**
- Working pres. PN10
- Testing pres. 1600 kPa
- Closing pres. 10 cm wc
- Max. temp. up to 90 °C
- Diam. nominal DN 15

**Material specifications**
- House POM
- Valve POM
- Torpedo POM
- Diaphragm Rubber
- O-ring Rubber
- Spring Stainless Steel

Other diameters and other closing pressures on request.

**Approvals**
- KIWA NL
- ABP D
- DVGW D
- NF F
- WRAS UK
- ETA DK
- SITAC S
- NSF USA
- SVGW CH

**Pressure loss-curve**
TO MEET THE EVER INCREASING QUALITY REQUIREMENTS, WATTS DEVELOPED THE SNAP-IN CHECK VALVE TYPE IO 020.

THE O-RING IS already MOUNTED ON THE CHECK VALVE AND KEEPS FIXED, WHICH CREATES AN EASY TO FIT CHECK VALVE.

---

### Technical Specifications

<table>
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<th>Specification</th>
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<tbody>
<tr>
<td>Working pres.</td>
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<tr>
<td>Testing pres.</td>
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<td>Closing pres.</td>
<td>10 cm wc</td>
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<td>Max. temp.</td>
<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
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### Material Specifications

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<th>Specification</th>
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<tbody>
<tr>
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<td>POM</td>
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<tr>
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<td>Diaphragm</td>
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<td>O-ring</td>
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<td>Spring</td>
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Other diameters and other closing pressures on request.

---

### Approvals

<table>
<thead>
<tr>
<th>Approval</th>
<th>Country</th>
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<tbody>
<tr>
<td>KIWA</td>
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<td>NSF</td>
<td>USA</td>
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<tr>
<td>SVGW</td>
<td>CH</td>
</tr>
</tbody>
</table>

---

### Pressure Loss Curve

**Graph:**

- **x-axis:** Flow (m³/h)
- **y-axis:** Delta P (kPa)

---

**Diagram:**

- Mounting dimensions
- O-ring
- Product dimensions

---

**Figure:**

- Diagram of the check valve showing mounting dimensions, O-ring, and product dimensions.
To meet the ever increasing quality requirements, Watts developed the snap-in check valve type IO 025.

The O-ring is already mounted on the check valve and keeps fixed, which creates an easy to fit check valve.

### Technical specifications

| Working pres. | PN10 |
| Testing pres. | 1600 kPa |
| Closing pres. | 10 cm wc |
| Max. temp. | up to 90 °C |
| Diam. nominal | DN 25 |

### Material specifications

- **House**: POM
- **Valve**: POM
- **Torpedo**: POM
- **Diaphragm**: Rubber
- **O-ring**: Rubber
- **Spring**: Stainless Steel

### Approvals

- **KIWA**: NL
- **ABP**: D
- **DVGW**: D
- **NF**: F
- **WRAS**: UK
- **ETA**: DK
- **NSF**: USA
- **SVGW**: CH

Other diameters and other closing pressures on request.
IO 032 DN 32

To meet the ever increasing quality requirements, Watts developed the snap-in check valve type IO 032. The O-ring is already mounted on the check valve and keeps fixed, which creates an easy to fit check valve.

Technical specifications
- Working pres.: PN10
- Testing pres.: 1600 kPa
- Closing pres.: 10 cm wc
- Max. temp.: up to 90 °C
- Diam. nominal: DN 32

Material specifications
- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber
- O-ring: Rubber
- Spring: Stainless Steel

Approvals
- KIWA: NL
- DVGW: D
- WRAS: UK
- NSF: USA
- SVGW: CH

Other diameters and other closing pressures on request.

Pressure loss-curve
To meet the ever increasing quality requirements, Watts developed the snap-in check valve type IO 040. The O-ring is already mounted on the check valve and keeps fixed, which creates an easy to fit check valve.

**Technical specifications**
- Working pres.: PN10
- Testing pres.: 1600 kPa
- Closing pres.: 10 cm wc
- Max. temp.: up to 90 °C
- Diam. nominal: DN 40

**Material specifications**
- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber
- O-ring: Rubber
- Spring: Stainless Steel

**Approvals**
- KIWA: NL
- DVGW: D
- WRAS: UK
- NSF: USA
- SVGW: CH

Other diameters and other closing pressures on request.

**Pressure loss-curve**

- Delta P (kPa)
- Flow (m³/h)
IO 050 DN 50

To meet the ever increasing quality requirements, Watts developed the snap-in check valve type IO 050. The O-ring is already mounted on the check valve and keeps fixed, which creates an easy to fit check valve.

**Technical specifications**

- Working pres.  PN10
- Testing pres.  1600 kPa
- Closing pres.  10 cm wc
- Max. temp.   up to 90 °C
- Diam. nominal DN 50

**Material specifications**

- House       POM
- Valve       POM
- Torpedo     POM
- Diaphragm   Rubber
- O-ring      Rubber
- Spring      Stainless Steel

**Approvals**

- KIWA  NL
- DVGW  D
- WRAS  UK
- NSF  USA
- SVGW  CH

Other diameters and other closing pressures on request.

**Pressure loss-curve**

<table>
<thead>
<tr>
<th>Flow (m³/h)</th>
<th>Delta P (kPa)</th>
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<tbody>
<tr>
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<tr>
<td>8</td>
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<td>72</td>
<td>190</td>
</tr>
<tr>
<td>80</td>
<td>210</td>
</tr>
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</table>

**Mounting dimensions**

- Ø 49.6
- Ø 51.9 ± 0.1
- 20°
- 30°
- 24.3 ± 0.3
- min 1.2

**O-ring**

- Ø 4.0

**Product dimensions**

- Ø 49.4 ± 0.1
- 45.8 ± 0.4
- 57.3 ± 0.5
- max 81.0
IW 020 DN 20

The Watts check valve type IW 020 shows the inventive solutions of Watts Ocean.
Our R&D made this check valve for our customers with the same performances they are used to.
Other diameters and closing pressures are also possible.

<table>
<thead>
<tr>
<th>Technical specifications</th>
<th>Material specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working pres.</td>
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<td>Testing pres.</td>
<td>Valve</td>
</tr>
<tr>
<td>Closing pres.</td>
<td>Torpedo</td>
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<td>Max. temp.</td>
<td>Diaphragm</td>
</tr>
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<td>Diam. nominal</td>
<td>O-ring</td>
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<tr>
<td>1600 kPa</td>
<td>POM</td>
</tr>
<tr>
<td>10 cm wc</td>
<td>POM</td>
</tr>
<tr>
<td>up to 90 °C</td>
<td>Rubber</td>
</tr>
<tr>
<td>DN 20</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

Other diameters and other closing pressures on request.

Pressure loss-curve
The Watts check valve type TO 015 can be used, if a really strong check valve is required. With a peak temperature up to 180 °C, it can stand a pressure of 1600kPa.

**Technical specifications**
- Working pres.: PN10
- Testing pres.: 1600 kPa
- Closing pres.: 10 cm wc
- Max. temp.: up to 90 °C
- Peak temp.: up to 180 °C
- Diam. nominal: DN 15

**Material specifications**
- House: PPS
- Valve: PPS
- Torpedo: PPS
- Diaphragm: Rubber
- O-ring: Rubber
- Spring: Stainless Steel

Other diameters and other closing pressures on request.

**Approvals**
- NF F
- WRAS UK
The Watts check valve type WI 020 shows the inventive solutions of Watts Ocean. Our R&D made this check valve for our customers with the same performances they are used to. Other diameters and closing pressures are also optional.

**WI 020 DN 20**

Technical specifications

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
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<tr>
<td>Testing pres.</td>
<td>1600 kPa</td>
</tr>
<tr>
<td>Closing pres.</td>
<td>10 cm wc</td>
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<tr>
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<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
<td>DN 20</td>
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Material specifications

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<table>
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<th></th>
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<td>Torpedo</td>
<td>POM</td>
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<td>Rubber</td>
</tr>
<tr>
<td>O-ring</td>
<td>Rubber</td>
</tr>
<tr>
<td>Spring</td>
<td>Stainless Steel</td>
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</table>

Other diameters and other closing pressures on request.

**Pressure loss-curve**

![Pressure loss-curve graph](image)
The Watts slide-in check valve type WM 015 features a noiseless operation, very low pressure loss and absolute sealing at high and low back pressures. The split valve stem principle guarantees a trouble free operation for many years.

**Technical specifications**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
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<tbody>
<tr>
<td>Working pres.</td>
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<td>10 cm wc</td>
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<tr>
<td>Max. temp.</td>
<td>up to 90 °C</td>
</tr>
<tr>
<td>Diam. nominal</td>
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**Material specifications**

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<th>Specification</th>
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<td>POM</td>
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<tr>
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<td>ETA</td>
<td>DK</td>
</tr>
<tr>
<td>SITAC</td>
<td>S</td>
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Other diameters and other closing pressures on request.
**WM 020 DN 20**

The Watts check valve type WM 020 features noiseless operation, very low pressure loss and absolute sealing at high and low back pressures. The split valve stem principle guarantees a trouble free operation for many years.

<table>
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<tr>
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<td>Max. temp.</td>
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</tr>
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<td></td>
<td>SITAC S</td>
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</table>

- **Material specifications**
  - House: POM
  - Valve: POM
  - Torpedo: POM
  - Diaphragm: Rubber
  - Spring: Stainless Steel

Other diameters and other closing pressures on request.

**Pressure loss-curve**

![Pressure loss-curve diagram](image)
WM 025 DN 25

The Watts slide-in check valve type WM 025 features noiseless operation, very low pressure loss and absolute sealing at high and low back pressures. The split valve stem principle guarantees a trouble free operation for many years.

Technical specifications

<table>
<thead>
<tr>
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<td>10 cm wc</td>
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<td>Max. temp.</td>
<td>up to 90 °C</td>
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<tr>
<td>Diam. nominal</td>
<td>DN 25</td>
</tr>
</tbody>
</table>

Material specifications

- House: POM
- Valve: POM
- Torpedo: POM
- Diaphragm: Rubber
- Spring: Stainless Steel

Other diameters and other closing pressures on request.

Approvals

- KIWA NL
- ABP D
- DVGW D
- NF F
- WRAS UK
- ETA DK
- SITAC S

Pressure loss-curve
**WM 040 DN 40**

The Watts slide-in check valve type WM 040 features noiseless operation, very low pressure loss and absolute sealing at high and low back pressures. The split valve stem principle guarantees a trouble free operation for many years.

<table>
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<tr>
<th>Technical specifications</th>
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<td>KIWA NL</td>
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<tr>
<td>Max. temp. up to 90 °C</td>
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<tr>
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**Material specifications**

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</tbody>
</table>

Other diameters and other closing pressures on request.

---

**Pressure loss-curve**

---

**Mounting dimensions**

**Product dimensions**

---

**Working pres.** PN10

**Testing pres.** 1600 kPa

**Closing pres.** 10 cm wc

**Max. temp.** up to 90 °C

**Diam. nominal** DN 40
**Auxiliary mounting tools**

In order to achieve a perfectly leaktight check valve construction, it is of crucial importance that mounting dimensions are respected.

On each check valve data sheet, you will find the required mounting dimensions to be created in the housing to the check valve.

In order to avoid any damage of the check valves and O-rings it is very important that check valves are mounted in the correct way.

To support positioning and mounting in the right way Watts produced a mounting tool for every check valve. The dimensions of the tools are given in the data sheet below.

When an approved Watts check valve is built in in accordance with the mounting dimensions as given on the relevant check valve data sheet and when the proper auxiliary tools are used, Watts ensures a check valve performance that will last for many years.

<table>
<thead>
<tr>
<th>DN</th>
<th>Model</th>
<th>H1</th>
<th>ØD1</th>
<th>ØD2</th>
<th>ØD3</th>
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<td>CO010</td>
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<td>7.85</td>
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Remark: dimensions are under usual reserve.
Product range Watts Industries

- System Disconnectors
- Backflow Protection Devices
- Check Valves
- Safety Units
- Safety Relief Valves
- Pressure Reducing Valves
- Automatic Control Valves
- Butterfly Valves
- Shut-Off Valves
- Measuring Gauges
- Temperature Control
- Expansion Vessels
- Process Switches
- Fuel Products
- Gas Products
- Electronic Controls
- Installation Protection Products
- Radiator Valves
- System Products
- Manifolds and Fittings