Parker Legris
Machine Safety: Product Sheets
Blocking Fittings

Blocking fittings include a pneumatic monostable 2/2 normally closed (NC) function.

These fittings are directly installed onto the pneumatic cylinder supply and exhaust chamber.

**Blocking Fitting, Male BSPP Thread**

<table>
<thead>
<tr>
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<tr>
<td>6</td>
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<td>G1/4</td>
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**Blocking Fitting, Male/Female BSPP Thread**

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<td>G1/2</td>
<td>7881 21 21</td>
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**Blocker/Flow Regulator, Male BSPP Thread**

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<tr>
<td>8</td>
<td>G1/4</td>
<td>7883 08 13</td>
</tr>
<tr>
<td>8</td>
<td>G3/8</td>
<td>7883 08 17</td>
</tr>
</tbody>
</table>

**Component Materials**

- **Body:** nickel-plated brass
- **Adaptor:** nickel-plated brass
- **Seals:** NBR
- **Gripping ring:** stainless steel
- **Release buttons:** polymer
- **Silicone-free**

**ISO 13849: Reliability**

B10d = 100 000 000 cycles, according to ISO 19973 tests with a frequency of 1Hz.
The failure criteria is determined by the safety function (valve) according to standard ISO 19973.

**ISO 12238**

Commutation switch: 5 ms

Commutation time is determined according to the standard test methodology.

**Reference Directives and Standards for Design**

- **ISO 14743**: Instant connection complies with the IS014743 tests.
- **EN 10204**: With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.
- **Pressure equipment directive 2014/68/EC**: Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

**Machinery Directive DI 2006/42/EC**

**ISO 12238**

- **Commutation switch:** 5 ms
- Commutation time is determined according to the standard test methodology.

**ISO 14743**

- Instant connection complies with the IS014743 tests.

**EN 10204**

- With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

**Pressure equipment directive 2014/68/EC**

- Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

**Conditions of use**

- **Safety Coefficient** (related to CCF)

- Fluids: compressed air
- Working pressure: 1 to 10 bar
- Working temperature:
  - -20°C to +70°C
  - -25°C to +70°C (metal version)
- Working pressure is dependant upon the cracking pressure with a safety coefficient of 3.

**Endurance**

- **(related to CCF)**

- The number of pressure cycles of the instant connection function of the fitting connected to polymer semi-rigid tubing at 1Hz from 1 to 6 bar: 63 000 000

**Diagnostic coverage**

- **(related to DC avg and to safety function)**

Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.

Impossible to eliminate the failure:
- Change of response time
- No commutation/no return commutation
- Change of leakage over a long period of use
- Pressure drop

**Fluids**

- Compressed air

**Working pressure**

- 1 to 10 bar

**Working temperature**

- -20°C to +70°C
- -25°C to +70°C (metal version)

**Working pressure**

- Dependant upon the cracking pressure with a safety coefficient of 3.
Piloted Non-Return Valves (PNRV)

These fittings include a normally closed (NC) monostable valve with a flow control regulation function and quick exhaust (model 7894).

These fittings are directly installed onto the pneumatic cylinder supply and exhaust chamber.

Component materials

- **Venting button**: nickel-plated brass
- **Body**: nickel-plated brass
- **Piston**: nickel-plated brass
- **Valve poppet**: nickel-plated brass, technical polymer
- **Gripping ring**: stainless steel
- **Locking nut**: nickel-plated brass
- **Adjustment screw**: nickel-plated brass
- **Seals**: NBR
- **Flow control regulator body**: technical polymer
- **Silicone-free**

**Machinery Directive DI 2006/42/EC**

- **ISO 13849**: reliability (related to MTTFd of safety function)
  - Not applicable

**Conditions of use**

- **Safety coefficient** (related to CCF)
  - Fluids: compressed air
  - Working pressure: 1 to 10 bar
  - Working temperature: -5°C to +60°C

**Endurance**

- **(related to CCF)
  - The number of pressure cycles of the instant connection function of the fitting connected to polymer semi-rigid tubing at 1Hz from 1 to 6 bar: 63,000,000**

**Diagnostic coverage**

- **(related to DC avg and to safety function)
  - Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
  - Impossible to eliminate failure:
    - Change of response time
    - No commutation/no return
    - Change of leakage over a long period of use
    - Pressure drop

**Reference Directives and Standards for Design**

- **ISO 12238**: Commutation switch: < 5 ms
  - Commutation time is determined according to the standard test methodology.

- **ISO 14743**: Instant connection comply with the ISO14743 tests.

- **EN 10204**: With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

**Pressure equipment directive 2014/68/EC**

Meet the requirements of §4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

**Complementary Products**

- Polyamide tubing
- Polyurethane tubing
- Polyethylene tubing
Non-Return Valves

Non-return valves include a monostable normally closed (NC) valve with a cracking threshold of 0.3 bar.

ISO 13849: reliability (related to MTTFd of safety function)

B10d = 26 000 000 cycles, according to ISO 19973 tests with a frequency of 1Hz. The failure criteria is determined by the safety function (valve) according to standard ISO 19973.

ISO 12238

Commutation switch: < 5ms
Commutation time is determined according to the standard test methodology.

ISO 14743

Instant connection comply with the ISO14743 tests.

EN 10204

With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

Pressure equipment directive 2014/68/EC

Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

Reference Directives and Standards for Design

ISO 13849: reliability (related to MTTFd of safety function)

B10d = 26 000 000 cycles, according to ISO 19973 tests with a frequency of 1Hz. The failure criteria is determined by the safety function (valve) according to standard ISO 19973.

ISO 14743

Endurance (related to CCF)

The number of pressure cycles of the instant connection function of the fitting connected to polymer semi-rigid tubing at 1Hz from 1 to 6 bar: 63 000 000

Diagnostic coverage (related to DC avg and safety function)

Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
Impossible to eliminate failure:
- Change of response time
- No commutation/no return commutation
- Change of leakage over a long period of use
- Pressure drop

Machinery Directive DI 2006/42/EC

ISO 13849: reliability (related to MTTFd of safety function)

B10d = 26 000 000 cycles, according to ISO 19973 tests with a frequency of 1Hz. The failure criteria is determined by the safety function (valve) according to standard ISO 19973.

ISO 14743

Endurance (related to CCF)

The number of pressure cycles of the instant connection function of the fitting connected to polymer semi-rigid tubing at 1Hz from 1 to 6 bar: 63 000 000

Diagnostic coverage (related to DC avg and safety function)

Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
Impossible to eliminate failure:
- Change of response time
- No commutation/no return commutation
- Change of leakage over a long period of use
- Pressure drop

Reference Directives and Standards for Design

ISO 12238

Commutation switch: < 5ms
Commutation time is determined according to the standard test methodology.

ISO 14743

Instant connection comply with the ISO14743 tests.

EN 10204

With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

Pressure equipment directive 2014/68/EC

Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

Complementary Products

- Polyamide tubing
- Polyurethane tubing
- Polyethylene tubing
Adjustable non-return valves include a monostable normally closed (NC) valve with a cracking threshold that is adjustable from 0.10 to 1 bar.

ISO 13849: Reliability (related to MTTFd of safety function)
Not applicable

Conditions of use
Safety coefficient (related to CCF)
Fluids: compressed air
Working pressure: 1 to 12 bar
Working temperature: -20°C to +80°C

Endurance (related to CCF)
10 million cycles. Endurance corresponds to the valve opening function at 7 bar with control of flow accuracy.

Diagnostic coverage (related to DC avg and to safety function)
Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
Impossible to eliminate failure:
- Change of response time
- No commutation/no return commutation
- Change of leakage over a long period of use
- Pressure drop

Reference Directives and Standards for Design
ISO 4414
Designed to avoid dangerous significant phenomena related to the use of pneumatic transmission in a machine, listed in appendix A, chart A1, A7 (food compatibility), A12.6

Technical specifications
Cracking pressure

<table>
<thead>
<tr>
<th>Threads</th>
<th>0 to 4 tours (values given as an example only)</th>
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<tbody>
<tr>
<td>M5x0.8 - G1/8 - G1/4</td>
<td>1 to 0.10 bar</td>
</tr>
<tr>
<td>G3/8 - G1/2</td>
<td>1 to 0.15 bar</td>
</tr>
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</table>

EN 10204
With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

Pressure equipment directive 2014/68/EC
Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

Complementary Ranges
- Polyamide tubing
- Polyurethane tubing
- Polyethylene tubing
Quick Exhaust Valve

The metal quick exhaust valve includes a normally closed (NC) single shut-off function. Installed on the venting circuit, this valve increases the return speed of the cylinder.

**Constituent Materials**
- **Body:** anodized aluminium
- **Integrated silencer:** stainless steel
- **Lip seals:** polyurethane elastomer
- **Silicone-free**

**Machinery Directive DI 2006/42/EC**

- **ISO 13849: reliability** (related to MTTFd of safety function)
  - Not applicable
- **Conditions of use**
  - **Safety coefficient** (related to CCF)
    - Fluids: compressed
    - Working pressure: 0.7 to 10 bar
    - Working temperature: -20°C to +70°C
  - **Endurance** (related to CCF)
    - Not applicable
- **Diagnostic coverage**
  - Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
  - Impossible to eliminate failure:
    - Change of response time
    - No commutation/no return commutation
    - Change of leakage over a long period of use
    - Pressure drop

**Reference Directives and Standards for Design**

- **ISO 4414**
  - Designed to avoid dangerous significant phenomena related to the use of pneumatic transmission in a machine, listed in appendix A, tableau A1 : A12.1
- **ISO 14743**
  - Minimum cracking pressure: 0.3 bar at room temperature
- **EN 10204**
  - With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

**Pressure equipment directive 2014/68/EC**

Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

**Complementary Ranges**
- Polyamide tubing
- Polyurethane tubing
- Polyethylene tubing
Silencers include a sound propagation filter equipped with an exhaust flow control regulator (models 0672 and 0676). They are designed for installation on exhaust circuits.

**Machinery Directive DI 2006/42/EC**

- **ISO 13849: reliability** (related to MTTFd of safety function) Not applicable
- **Conditions of use**
  - **Fluids:** compressed air
  - **Working pressure:** Polyethylene: 0 to 10 bar
    Sintered bronze: 0 to 12 bar
  - **Working temperature:** Polyethylene: -10°C to +80°C
    Sintered bronze: -20°C to +150°C
- **Endurance** (related to CCF) Not applicable
- **Diagnostic coverage** (related to DC avg and to safety function) Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
  - Impossible to eliminate failure:
    - Pressure drop

**Reference Directives and Standards for Design**

- **ISO 4414** Designed to avoid dangerous significant phenomena related to the use of pneumatic transmission in a machine, listed in appendix A, chart A1, A.4
- **OSHA 1910.95 (b) DI 2003/11/EC** Noise level measured for 8 hours' exposure and risks involved for operators:
  - 90 dBA max.
  - for noise levels > 80 dBA: requirement to use ear protection if exposure > 8 hours
- **EN 10204** With the order reference, we can provide types 2.2 or 2.1 certificates, upon request.
- **Pressure equipment directive 2014/68/EC** Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

**Silencers**

- **Polymer Silencer, Male BSPP and Metric Thread**
- **Threaded Silencer, Male BSPP Thread**
- **Compact Silencer, Male BSPP and Metric Thread**
- **Flow Control Polymer Silencer, Male BSPP and Metric Thread**
- **Flow Control Silencer, Male BSPP Thread**
- **Push-In Silencer**

**Component Materials**

- **Silencer:**
  - Brass: (0670, 0673, 0671, 0672)
  - Polymer: (0674, 0676)
- **Body:**
  - Brass: (0670, 0673, 0671, 0672)
  - Polymer: (0676)
- **Silicone-free**

**Complementary Products**

- Compression fittings
Tamper-Proof Safety Clip

This product is directly installed on the push-in fitting. It is designed to block the release button. For disconnection, the tamper-evident safety clip must be broken with a tool to unblock the release button.

Tamper-Proof Safety Clip

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<tr>
<th>ØD</th>
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<td>3130 12 03</td>
<td>3130 12 05</td>
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</tbody>
</table>

Component Material and Installation Process

Technical polymer

ISO 13849: reliability (related to MTTF of safety function)

Not applicable

Conditions of use

Safety coefficient (related to CCF)

Compatible ranges: LF 3000®, LIQUIfit®

Working temperature:
-20°C to +95°C

Endurance (related to CCF)

Not applicable

Diagnostic coverage (related to DC avg and to safety function)

Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard
- Obstruction (blockage)
- Error of connection

Reference Directives and Standards for Design

ISO 4414

Design to avoid dangerous significant phenomena related to the use of pneumatic transmission in a machine, listed in appendix A, chart A1: A.11.2, A.12.6

ISO 14743

Not applicable

EN 10204

With the order reference, we can provide types 2.2 ou 2.1 certificates, upon request.

Pressure equipment directive 2014/68/EC

Not applicable

Complementary Ranges

- LF 3000® push-in fittings
- LIQUIfit® push-in fittings
Ball Valves, Universal Series, Lockable

These valves are normally open (NO) ball valves. The flow passes through the ball valve in a straight or elbow line. These valves can be open or closed by a simple 90° rotation of the handle.

ISO 13849: Reliability (related to MTTFd of safety function)

- Not applicable

Conditions of use

- Safety coefficient (related to CCF)
- Fluids: Industrial fluids
- Working pressure: 20 to 40 bar, according to the model
- Working temperature: -40°C to +80°C

Endurance (related to CCF)

- 5000 operating cycles (opening/closing) at 6 bar according to standard EN 13828

Diagnostic coverage (related to DC avg and to safety function)

- Not applicable

Reference Directives and Standards for Design

ISO 4414
To prevent hazards caused by unintended operations, the lockable plate fixed to the stem guarantees the conformity to this standard.

EN 13828
Standard’s performance requirements and test methods. Sealing is reinforced with the double wear compensation seat ball.

EN 10204
With the order reference, we can provide types 2.2 or 2.1 certificates, upon request.

Pressure equipment directive 2014/68/CE
Mandatory CE marking for DN > 25 mm. For use with dangerous gases, please consult us.

Complementary Products

- Polyamide tubing
- Polyurethane tubing
- Polyethylene tubing
- Compression fittings
Safety Blowgun

This blowgun is designed with a blowing nozzle including a normally open (NO) valve with automatic blockage in case there is an obstruction of the nozzle. The remaining pressure is therefore limited to 0.5 bar.

### Component Materials

- **Body:** technical polymer
- **Nozzle:** nickel-plated brass
- **Trigger:** technical polymer
- **Connection:** nickel-plated brass
- **Silicone-free**

### Machine Directive DI 2006/42/EC

- **ISO 13849 : reliability**
  (related to MTTFd of safety function)
  - Not applicable
- **Conditions of use**
  **Safety Factor**
  (related to CCF)
  - Fluid: compressed air
  - Working pressure: 0 to 10 bar
  - Working temperature: -20°C to +80°C
- **Endurance**
  (related to CCF)
  - Number of piston operating cycles allowing opening/closing of compressed air circuit at 6 bar: 365,000 cycles.
- **Diagnostic coverage**
  (related to DC avg and to safety function)
  - Sources of failure related to pneumatic components, taken from the DIN EN ISO 13849-2 standard.
  - Impossible to eliminate the failure for the nozzle:
    - Change of response time
    - No commutation/no return commutation
    - Change of leakage over a long period of use
    - Pressure drop

### Reference Directives and Standards for Design

- **OSHA 1910.242 (b)**
  - Residual static pressure < 30 psi in the case when the nozzle is blocked
- **OSHA 1910.95 (b)**
  - DJ 2003/11/EC
  - Noise level measured for 8 hours' exposure and risks involved for operators:
    - 80 dBA
    - No ear protection necessary
- **EN 10204**
  - With the order reference, we can provide types 2.2 or 2.1 certificates, upon request.
- **Pressure equipment directive 2014/68/EC**
  - Meet the requirements of § 4.3 article and test pressure equivalent to 1.5 times the recommended working pressure.

### Complementary Products

- Braided PU ester and ether recoil hose
- Recoil semi-rigid PA tubing