



# Piloted Non-Return Valve

A Compact and Reliable Multi-Purpose Fitting  
for Safer Pneumatic Installations

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
**process control**  
sealing & shielding



ENGINEERING YOUR SUCCESS.



# PILOTED NON-RETURN VALVE

**Packaging**

Assembly machines

Material handling



Robotics

Machine tools

**Automotive process**

## Safer Pneumatic Installations

- Designed to protect your installations:
  - Blocks cylinder movement in a vertical or horizontal position
  - Allows the cylinder to stop in a mid-stroke position
  - Maintains loads in case of pressure loss or emergency shut-off\*
- New machinery directive 2006/42/EC: our piloted non-return valve conforms to this directive to guarantee safe use and security of equipment.

## 3 Integrated Functions into 1 Product

- A multi-purpose fitting:
  - Piloted non-return valve
  - Flow regulator
  - Manual exhaust
- 1-piece fitting: **integrated fittings** for pilot port and supply port
- Mounted in pairs directly on the cylinder

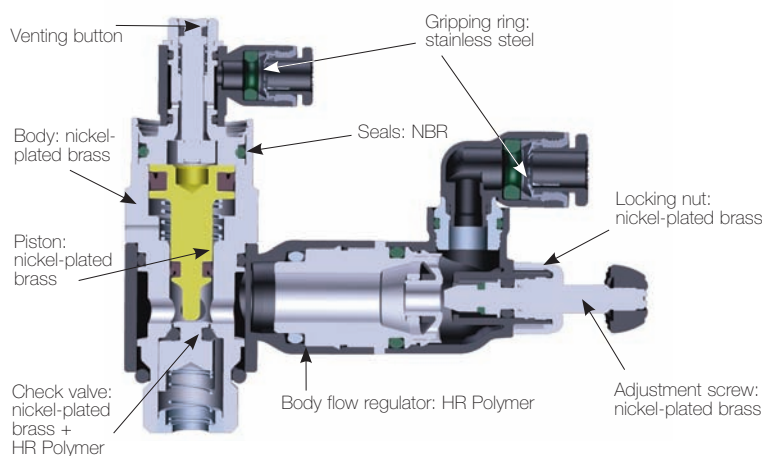
## Flexibility

- All ports can swivel 360° to suit all pneumatic connection configurations
- The flow regulator can turn on its axis
- Instant fitting ports (LF 3000) for a quicker and more reliable installation

\* With a pneumatic stop, very slight movement of the cylinder is still possible.  
Only a mechanical stop will ensure a full and immediate stop.

## > Technical Characteristics

### Constituent Materials



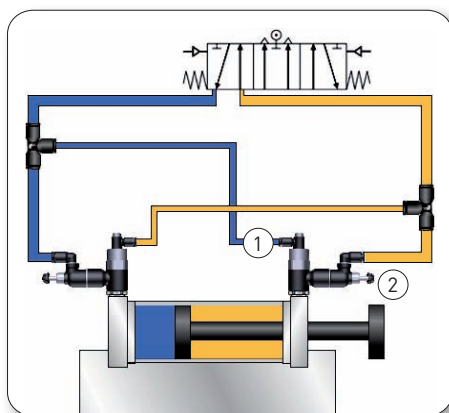
|                     |                       |
|---------------------|-----------------------|
| Suitable Fluid      | Compressed air        |
| Working Pressure    | 1 to 10 bar           |
| Working Temperature | -5°C to +60°C         |
| Suitable Tubing     | Polyurethane<br>Nylon |
| Nbr of turns        | 10 to 15              |

## > Flow Characteristics at 6 bar (NI/min)

| Max. Flow  | 7894 06 10 | 7894 06 13 | 7894 08 10 | 7894 08 13 | 7894 08 17 | 7894 10 17 | 7894 10 21 | 7894 12 21 |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Adjustment | 250        | 475        | 240        | 585        | 875        | 940        | 1535       | 1560       |
| Return     | 365        | 620        | 355        | 815        | 1085       | 1205       | 1860       | 1940       |

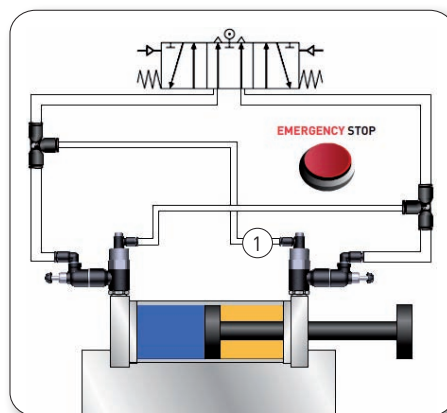
## > Working Principle

### Normal Operation



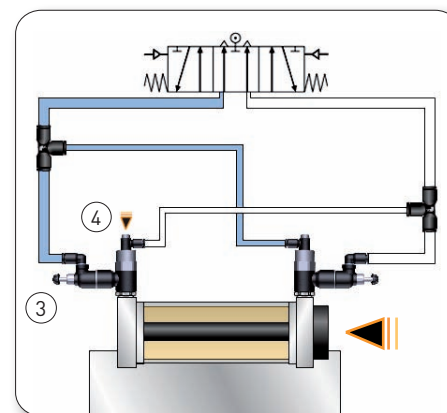
The control valve alternately supplies the two cylinder chambers; the pilot connection ① is connected to the opposite supply chamber with a tee fitting. Exhaust flow is controlled by the flow regulator ②.

### Emergency Stop



In case of an emergency stop or pressure drop, pilot pressure ① drops, closing the piloted non-return valves and blocking the cylinder rod.

### Venting Operation



The cylinder can be put into low position using a vent ④ that empties the pressure chamber through the flow regulator ③ and the control valve.

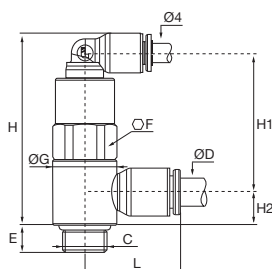
## > Precautions of use

- Close the control regulator before venting in order to avoid sudden release of the cylinder rod.
- Do not use in corrosive environments.



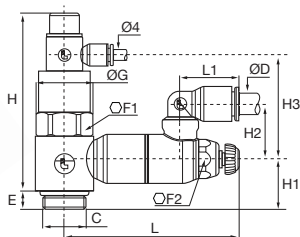
## > Dimensions

### 7892 Piloted non-return valve, BSPP



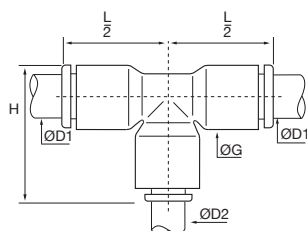
| ØD | C    |            | E  | F  | G    | H  | H1 | H2 | L  | kg    |
|----|------|------------|----|----|------|----|----|----|----|-------|
| 6  | G1/8 | 7892 06 10 | 6  | 13 | 14   | 42 | 30 | 7  | 21 | 0,028 |
| 6  | G1/4 | 7892 06 13 | 9  | 17 | 18,5 | 45 | 32 | 9  | 23 | 0,049 |
| 8  | G1/8 | 7892 08 10 | 6  | 13 | 14   | 42 | 29 | 9  | 25 | 0,029 |
| 8  | G1/4 | 7892 08 13 | 9  | 17 | 18,5 | 45 | 32 | 9  | 27 | 0,051 |
| 8  | G3/8 | 7892 08 17 | 6  | 20 | 22,5 | 57 | 41 | 11 | 28 | 0,093 |
| 10 | G3/8 | 7892 10 17 | 6  | 20 | 22,5 | 57 | 41 | 11 | 31 | 0,094 |
| 10 | G1/2 | 7892 10 21 | 10 | 24 | 28   | 63 | 47 | 16 | 36 | 0,172 |
| 12 | G1/2 | 7892 12 21 | 10 | 24 | 28   | 63 | 47 | 16 | 36 | 0,162 |

### 7894 Piloted non-return valve with flow regulator and exhaust, BSPP



| ØD | C    |            | E | F1 | F2 | G    | H  | H1   | H2 | H3 | L <sub>mini</sub> | L <sub>maxi</sub> | L1 | kg    |
|----|------|------------|---|----|----|------|----|------|----|----|-------------------|-------------------|----|-------|
| 6  | G1/8 | 7894 06 10 | 6 | 13 | 8  | 14   | 46 | 7    | 24 | 31 | 48,5              | 51                | 16 | 0,049 |
| 6  | G1/4 | 7894 06 13 | 9 | 17 | 10 | 18,5 | 49 | 11   | 18 | 31 | 59,5              | 65                | 17 | 0,081 |
| 8  | G1/8 | 7894 08 10 | 6 | 13 | 8  | 14   | 46 | 7    | 27 | 31 | 48,5              | 51                | 22 | 0,050 |
| 8  | G1/4 | 7894 08 13 | 9 | 17 | 10 | 18,5 | 49 | 11   | 23 | 31 | 59,5              | 65                | 23 | 0,084 |
| 8  | G3/8 | 7894 08 17 | 7 | 20 | 14 | 22,5 | 69 | 13   | 21 | 40 | 67,5              | 73                | 23 | 0,148 |
| 10 | G3/8 | 7894 10 17 | 7 | 20 | 14 | 22,5 | 69 | 13   | 29 | 40 | 67,5              | 73                | 26 | 0,152 |
| 10 | G1/2 | 7894 10 21 | 9 | 24 | 17 | 28   | 76 | 12,5 | 26 | 47 | 74                | 81                | 26 | 0,234 |
| 12 | G1/2 | 7894 12 21 | 9 | 24 | 17 | 28   | 76 | 12,5 | 27 | 47 | 74                | 81                | 30 | 0,236 |

### 3104 Unequal tee



| ØD1 | ØD2 |            | G    | H    | L/2  | kg    |
|-----|-----|------------|------|------|------|-------|
| 6   | 4   | 3104 06 04 | 10,5 | 22,5 | 17,5 | 0,006 |
| 8   | 4   | 3104 08 04 | 13,5 | 29   | 22,5 | 0,014 |
| 10  | 4   | 3104 10 04 | 16   | 33   | 26   | 0,027 |
| 12  | 4   | 3104 12 04 | 19   | 39   | 31   | 0,034 |

## > Regulations



The piloted non-return valve is manufactured from materials without any hazardous prohibited substances.

New machinery directive 2006/42/EC: our piloted non-return valve conforms to this directive to guarantee safe use and security of equipment.

Parker Legris Connectic offers a comprehensive range of connection solutions ; please consult our general catalogue or visit [www.legris.com](http://www.legris.com) or [www.parkerconnectic.com](http://www.parkerconnectic.com).

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