Piloted Non Return Valve (PNRV)

Customer Presentation

FSCE Division

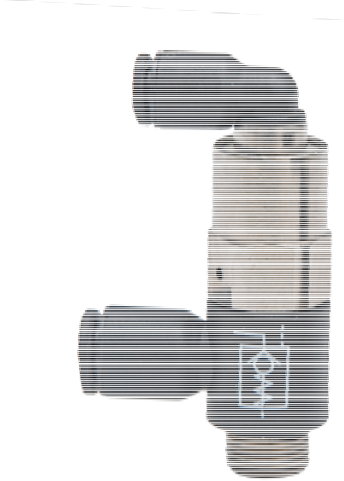


ENGINEERING YOUR SUCCESS.

Piloted non return valve

- **Customer value proposition:**

A compact and reliable multi-purpose fitting for safer pneumatic installations





Piloted non return valve

- **3 functions into 1 product**

• 3 functions integrated into 1 product:

- **Piloted non-return valve** to stop the cylinder in case of emergency stop or pressure drop.
- **Flow regulator** to control the speed of the cylinder.
- **Manual vent button** for exhausting the residual pressure after an emergency stop.

• Integrated fitting for pilot port and supply port for a quicker assembly time and reduced stocks.

Piloted non return valve

- **Safer pneumatic installations**

• Respects the new machinery directive to guarantee safe use and security of equipment.

• Possibility to add a security clip to secure the tubing connection.

• Reliable product: individual unit quality control and dating in order to guarantee quality and traceability.

Piloted non return valve

- **Flexibility**

• All ports can swivel into any position, to fit all pneumatic connection configurations.

• The flow regulator can turn on its axis.

• Instant fitting ports (LF 3000) for a quicker and more reliable installation.

• Unequal Tee to easily adapt each supply port to each pilot port.

Piloted non return valve

- **A comprehensive range**

We provide the most complete range on the market:

- 2 types of products: single PNRV and PNRV with flow reg and exhaust.
- Threads from G1/8 to G1/2.
- Diameters: 4 to 12 mm.

Piloted non return valve

- **Our offer:**

Single Piloted non return valve

Item type 7892

- BSPP sub-base: G1/8 to G1/2
- Supply port: diameter 4 to 12 mm
- Pilot port: diameter 4 mm

Piloted non return valve

- **Our offer:**

Piloted non return valve with flow regulator and manual vent button

Item type 7894

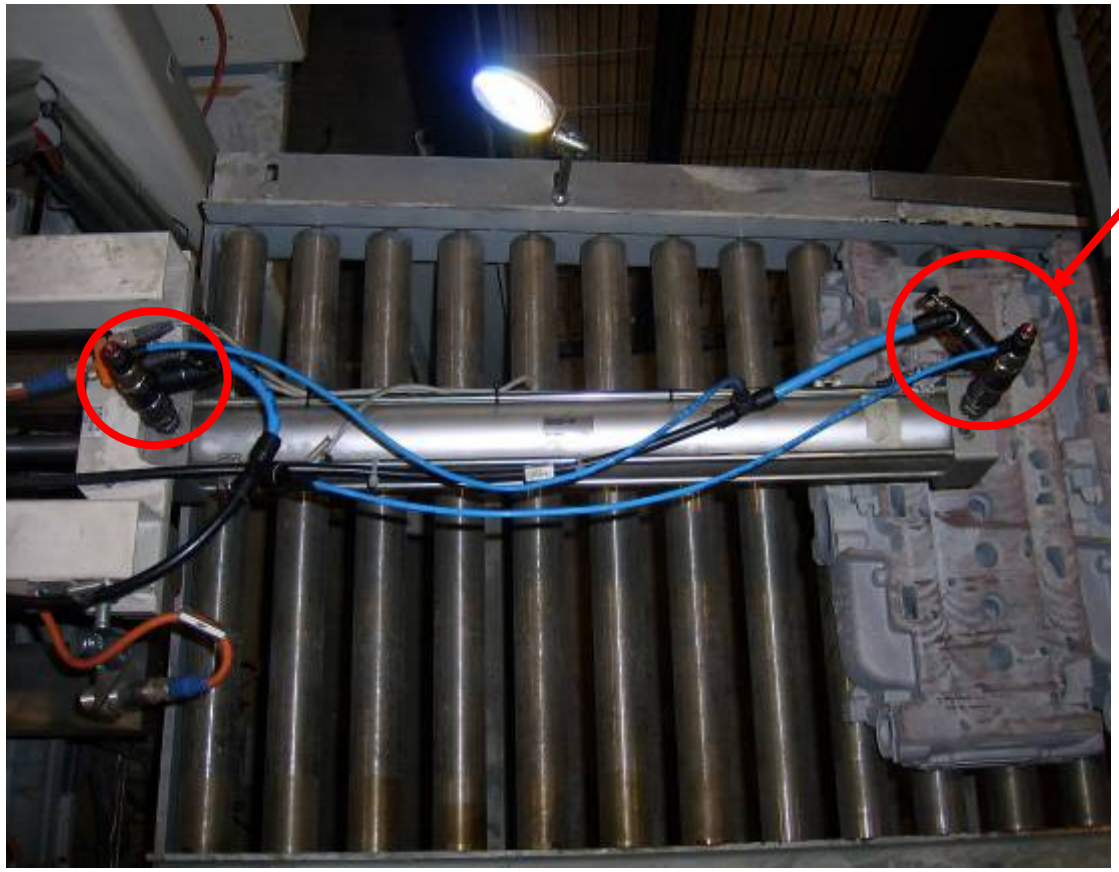
- BSPP sub-base: G1/8 to G1/2
- Supply port: diameter 4 to 12 mm
- Pilot port: diameter 4 mm

- Integrated exhaust flow regulator to control the speed of the cylinder.

- Integrated manual vent button for exhausting residual pressure.

Piloted non return valve

Application: automotive process



Avoid heavy metallic pieces to fall in event of lost of supply pressure

Piloted non return valve

Application: food process



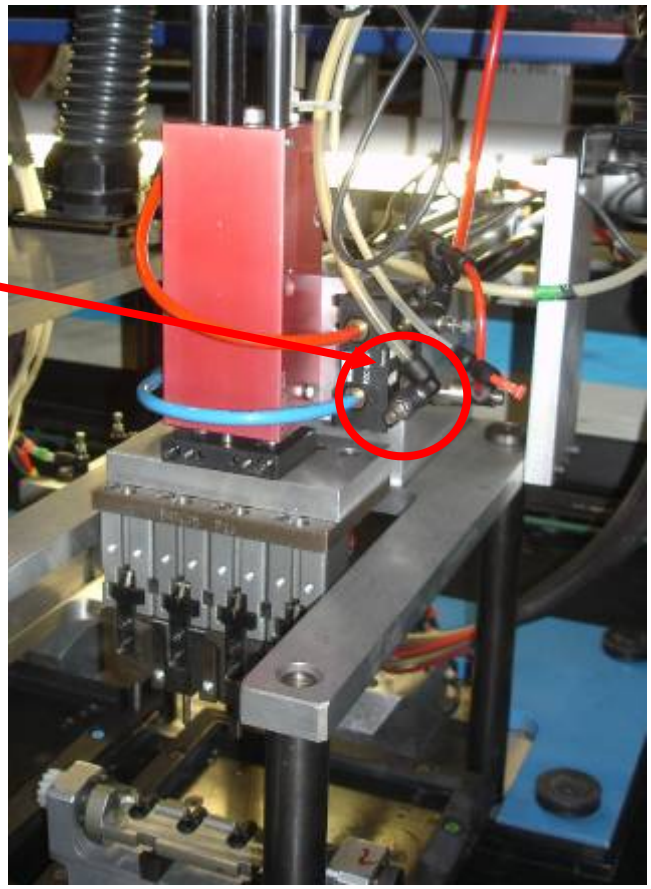
Retain the food stuff container when there is no more pressure

Piloted non return valve

Application: assembly machine

Protect equipments in case of lost of pressure. Avoid the equipment being blocked in a low position.





Piloted non return valve

- **Working principle:**

- Normal operation

The control valve alternatively supplies the 2 cylinder chambers, the pilot port is connected to the opposite site supply chamber with a tee fitting.
Exhaust flow is controlled by the flow regulator.

- Emergency stop

In case of emergency stop or pressure drop, pilot pressure drops, closing the piloted non-return valve. The cylinder rod is blocked*.

- Vent

Cylinder can be put in a low position with a vent that empties the pressure chamber through the flow regulator and the control valve.

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

Piloted non return valve

- **Conditions of use:**

- Working temperature : **-5°C** → **+60°C**

- Working pressure : **1 bar** → **10 bar**

- Suitable fluid : Compressed air

- Suitable tubing : Nylon, Polyurethane

Conclusion: your assets

- **3 functions into 1 product.**
- **Space-saving.**
- **Flexibility.**
- **Reduced total cost of acquisition.**
- **One contact for all the pneumatic devices in Automation.**
- **Technical support and special product capability.**