

CAME GROUP

URBACO



ISO 14001

AUTOMATIC BOLLARDS

**TECHNICAL MANUAL
BYPASS VALVE
(For automatic retractable bollards)
Reference: BOEVB**

**THIS MANUAL IS INTENDED FOR TECHNICAL STAFF IN CHARGE OF
THE INSTALLATION, THE OPERATION AND THE MAINTENANCE OF THIS PRODUCT**

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1. PRESENTATION

The bypass valve for URBACO's automatic retractable bollards is intended to keep the bollard upward in case of a power outage. It is referred to as the 'failsafe' principle, also known as '**negative security**'.

This is how it works:

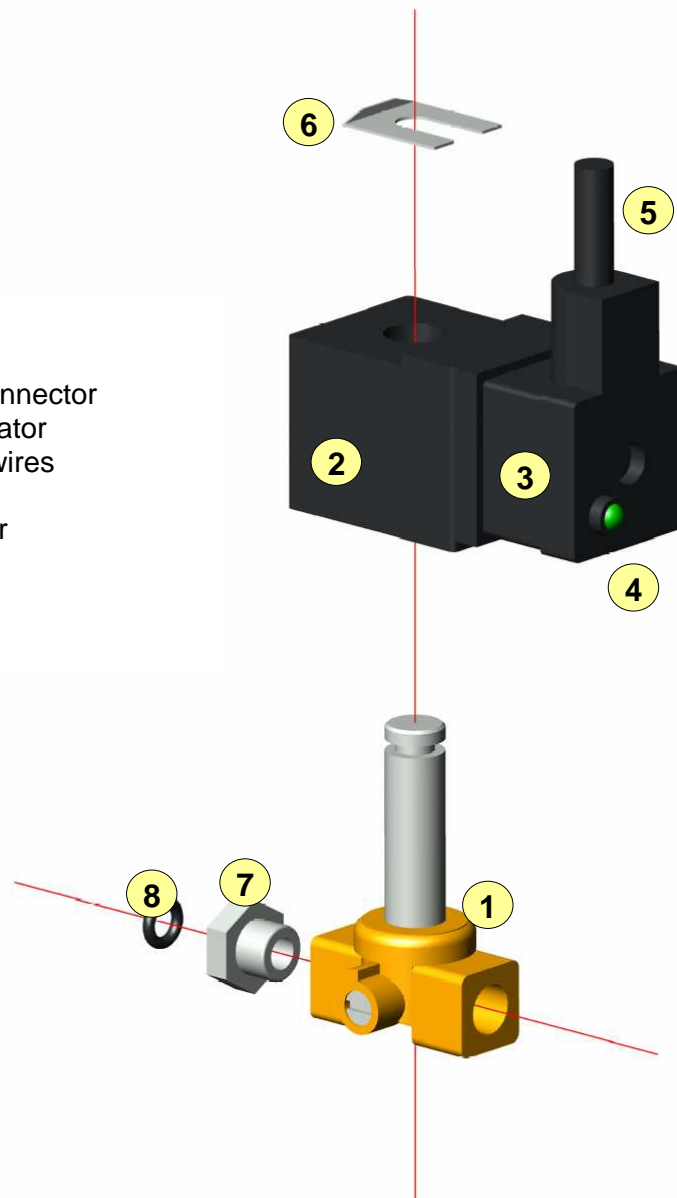
The bypass valve is connected onto the exhaust of the main solenoid valve. It is supplied in continuous current from the panel's 24 VAC terminal.

When power is on, the bypass valve is open, air can circulate, and therefore the exhaust of the main solenoid valve is clear. The bollard works normally.

When power is off or cut and the bollard upward, power is no longer supplied to the bypass valve; it is therefore closed and air cannot circulate. The exhaust of the main solenoid valve is sealed. The bollard remains upward as the air cannot escape. When power is restored, the bypass valve takes over and opens again, the bollard remains upward or goes down depending on the status of the main solenoid valve.

To actuate the bollard down by hand during a power outage, a 3-way manifold with anti-return valve is available on option (see page 7).

- 1- Solenoid valve
- 2- Coil
- 3- Power supply connector
- 4- LED status indicator
- 5- Power cable, 3 wires
- 6- Locking clip
- 7- Coupling adaptor
- 8- O-Ring



2. HOW TO MOUNT THE BYPASS VALVE ON THE MAIN SOLENOID VALVE

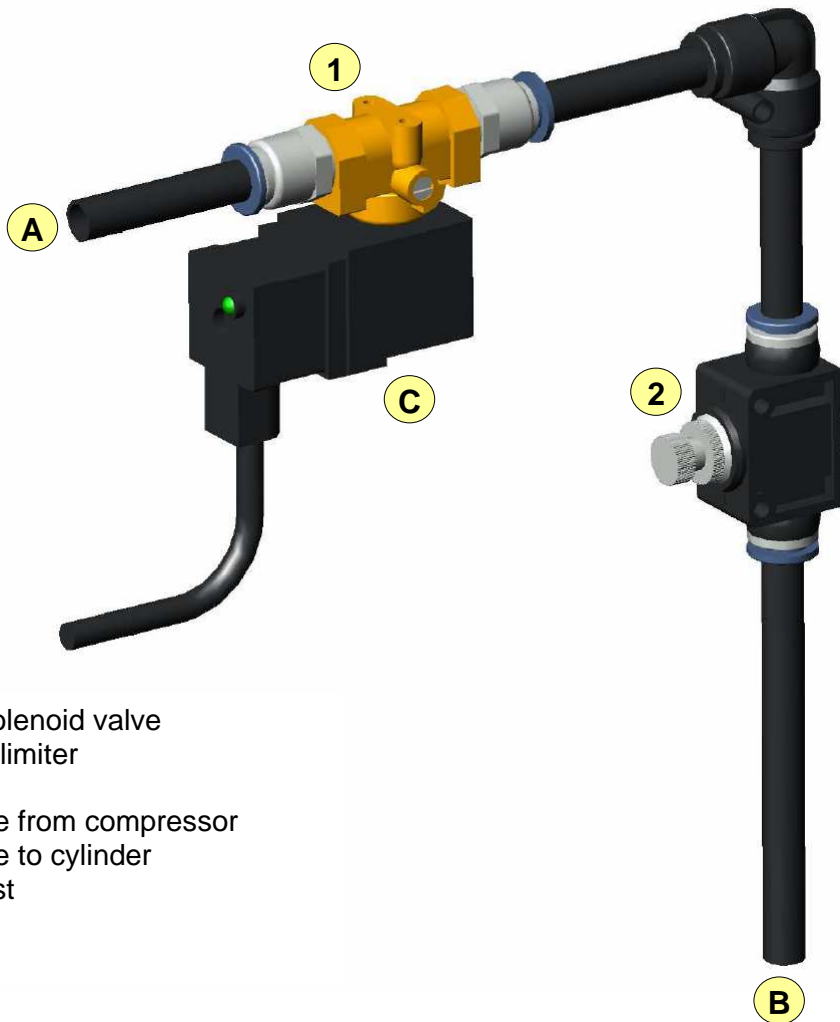
2.1. Standard mounting without bypass valve:

The air inlet is connected on Marker 1 of the solenoid valve (SV) (on the body of the solenoid valve). Marker 2 of the solenoid valve (SV) supplies air to the cylinder through the airflow limiter.

SV on = SV open between Marker 1 and Marker 2 (the bollard rises).

SV off = SV closed between Marker 2 and the exhaust (the bollard goes down).

Note: The $\frac{1}{4}$ turn screw must be positioned on « 0 »



2.2. Mounting with bypass valve:

The air inlet is connected on Marker 1 of the SV (on the body of the solenoid valve).

Marker 2 of the SV supplies air to the cylinder through the airflow limiter.

The SV exhaust is connected to Marker 2 of the bypass valve (BV) (with coupling adaptor and O-ring).

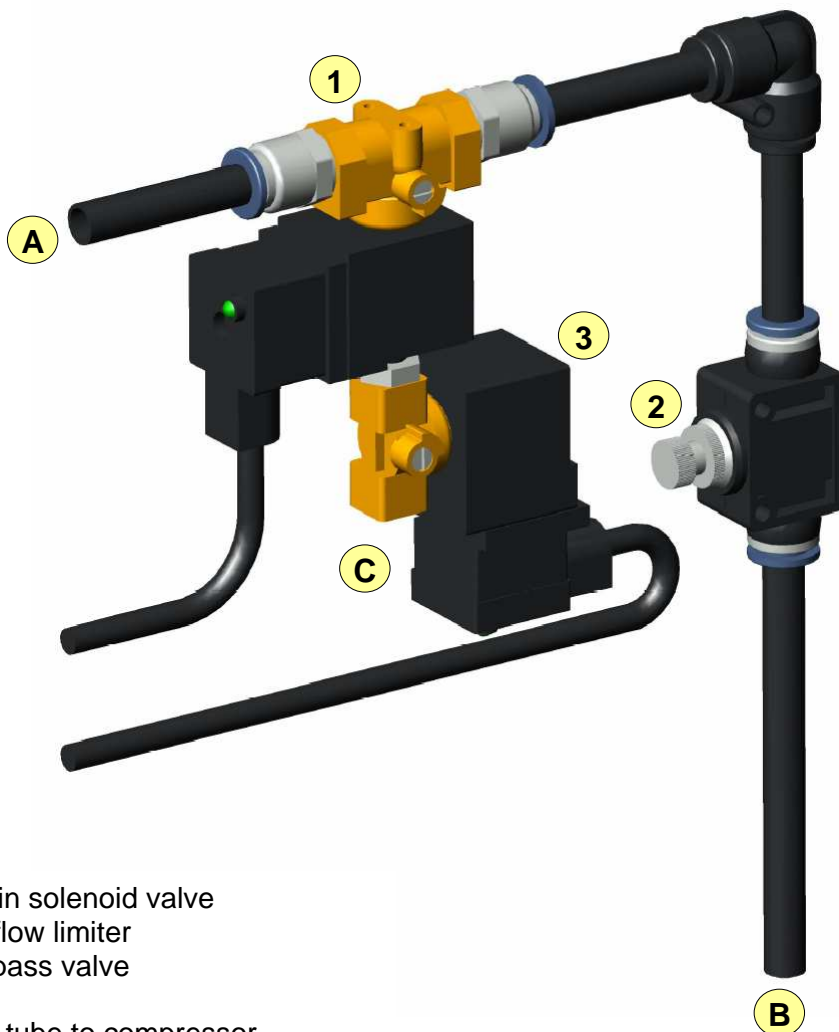
Marker 1 of the bypass valve is used as exhaust.

SV on and BV on = SV open between Marker 1 and Marker 2 (the bollard rises).

SV off and BV on = SV open between Marker 2 and exhaust (the bollard goes down).

SV off and BV off = SV and BV are closed (the bollard is maintained upward).

Note: The ¼ turn screw must be positioned on « 0 »



1- Main solenoid valve

2- Airflow limiter

3- Bypass valve

A- Air tube to compressor

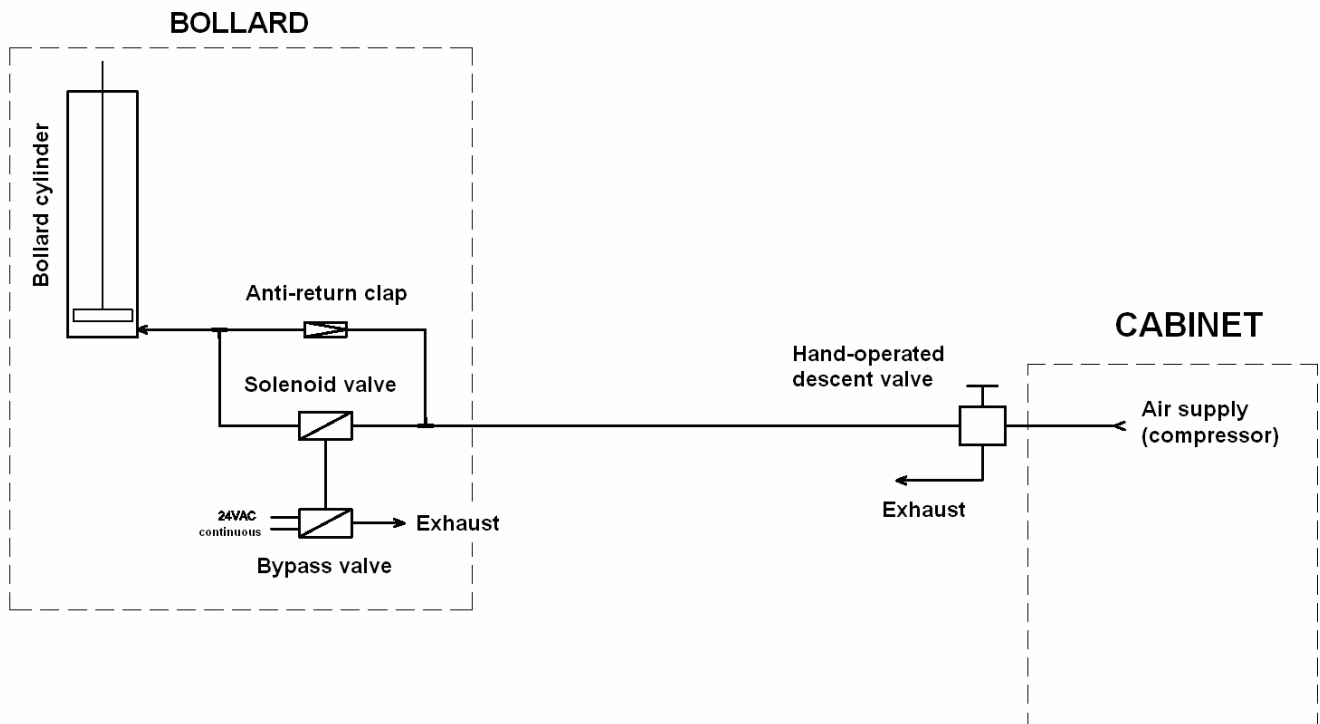
B- Air tube to cylinder

C- Exhaust through bypass valve

3. TECHNICAL DATA

Power supply	: 24VAC (rectifier integrated to connector)
Frequency	: 50-60Hz
Power	: 5W
Utilisation	: 100%
Protection degree	: IP67

4. MOUNTING FOR HAND-OPERATED BOLLARD DESCENT MODE (OPTION)



The anti-return clap is added onto the bollard (item ref. BOSV3V) and a 3-way manifold is installed inside the cabinet (or other receptacle) in series on the air circuit (COSV3V).

INTERNATIONAL SALES DEPARTMENT:

Available Monday through Friday from 8:00 a.m. till 12:30 and from 2:00 p.m. till 6:00 p.m. (local time)

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