

## Description of the Valve

This 4/3-way valve is a combination of two 3/2-way valves (normally closed) and is installed in a common valvebody with CETOP connection. The valve is explosion proof and can be used as main valve and pilot valve in hydraulic safety control systems.

## Technical Data of the Valve

Working pressure:	135 – 160 bar 1.960 – 2.320 psi
Nominal diameter:	DN3            1/4"
Flow rate:	up to 5.0 l/min
Temperature range:	-20°C to +60°C -4°F to +140°F
Recommended filtration:	10 – 20 µm

## Media

Mineral oil, HFA liquids, plain water, tap water, water glycol

## Characteristics and Operations

The valve is a leakage-free ball valve and can be operated mechanically, with a solenoid or manually in case of an emergency.

The valve cartridge is pressure balanced and the operating power is low regardless the pressure range.

The valve and solenoid body are made of aluminum and the surface is anodised. All wetted parts are made of stainless steel or ceramic.

## Options

The valve offers the following options:

- Manual reset / Latch
- Voltage, NO/NC, material
- Various orifices

## Type of Protection

ATEX: II 2G EEx d II C T5/T6  
IECEX: Ex db IIC T6 Gb

## Certification

BVS 03 ATEX E 289  
IECEX BVS 15.0058 X

## Description of the Solenoid

The solenoid has two compartments, one is a terminal compartment and the other is for the solenoid itself. Both compartments are flameproof enclosure type "d".

## Technical Data of the Solenoid

Nominal voltage:	24 VDC	+/- 8%
Nominal current:	208 mA	
Input Power:	5W	
Stroke:	2 mm	

## Designation

Type 403 003 134 (4/3-way valve DN3)

## Mode of Operation

### Switch mode, NC (normally closed)

If the valve is not operated, the lower ball is pushed into the seat by the springforce, the pressurised medium keeps the valve in this position.

Simultaneously, the upper ball is lifted from the valve seat and A to T is opened.

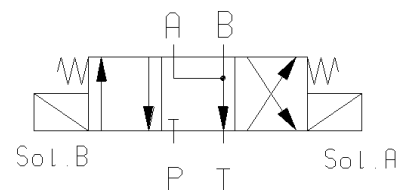
If the valve is operated the lever pushes the upper ball into its seat. Simultaneously, the lower ball is lifted from the seat and the flowpath P to A is opened.

### Switch mode, NO (normally open)

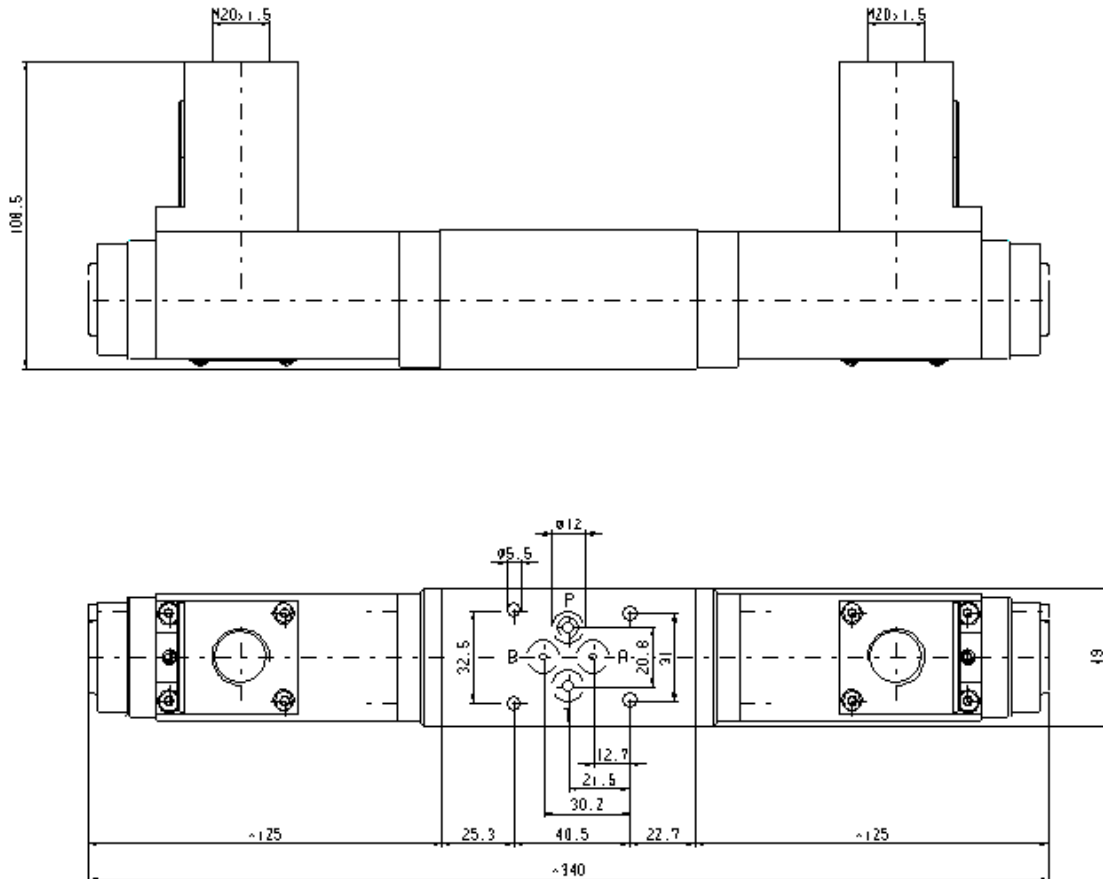
If the valve is not operated the ball is pushed into its upper seat by the spring and the pressurised medium. Through this, P to A is opened.

If the valve is operated, the lever pushes the tappet and both have to overcome the spring force and the working pressure in order to push the ball into its lower seat. This way P is closed and the outlet A via T is depressurised.

## Symbol of a 4/3 valve



**Drawing of the Valve**



**Sectional Drawing of the Valve Cartridge**

