

# Retractable Locating Pin SZV.1 40, Z, SZV 60

## Operating Instructions



### 1. Description

The retractable pin cylinder is a high-power tool designed for use in locating points in the processing of sheet metal. It consists of a pneumatic cylinder and of a housing with mountings at the front and the side, an integrated toggle lever mechanism and a driving rod.

The retractable pin cylinder optionally is fitted with an inductive set, which allows positioning to be controlled with inductive switches. By pressurisation, the pneumatic cylinder functions on the integrated toggle lever mechanism and moves the driving rod into the extended, locked position. The return stroke moves the driving rod back to the home position.

Optionally, the retractable pin cylinder is equipped with a hand lever to lock the mechanism manually. The hand lever is enclosed and will be attached to either the left or the right side of the cylinder by the customer.

### 2. Safety

The retractable pin cylinder was not conceived as a full tool supplied ready for independent use and has therefore not been fitted with its own safety equipment. Only when it is correctly installed in a production system and a corresponding safety control system is added, will all safety requirements be met.

Should any faults occur that place personnel at risk, the retractable pin cylinder is to be switched off immediately. Maintenance measures are only to be undertaken when the machine is at a complete standstill and by suitably qualified specialists.

After maintenance work has been carried out, the protection devices are to be refitted in the correct way.

### 3. Assembly of the retractable pin cylinder

- The retractable pin cylinder is installed by means of four head cap screws on the front side of the cylinder area or on the housing sides.
- The centring pin manufactured by the customer is secured in the piston rod receiver with 2 parallel pins  $\varnothing 6$  and a screw M8.

**Caution:** The retractable pin cylinder was not provided with means of adjustment. This must be taken into account when designing / manufacturing the consoles / braces.

- Create supply of compressed air between pneumatic control and retractable pin cylinder (connections "N").

**Caution:** For fine adjustment of speed of positioning operation use of external regulating valves is recommended.

### Inductive limit switch set (T12)

Set plug on socket "C" according to the electrical design of the pneumatic clamp (see circuit diagrams), and tighten.

**Caution:** Operation with incorrect or too high voltage can lead to short circuiting and danger to personnel.

Function control with integrated LED as follows:

green .....operation voltage  
yellowcylinder retracted  
red .....cylinder extended

**Caution:** Max. operating pressure for control lines is 6 bar.

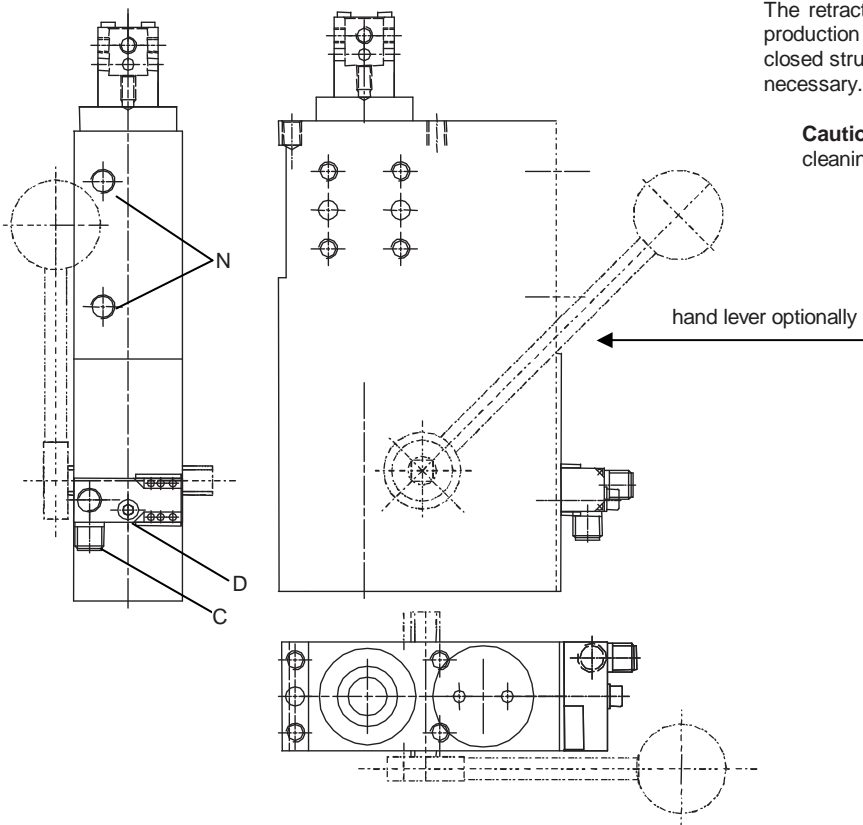
### 4. Replacement of limit switch cartridge

- Remove limit switch cartridge by releasing the screw "D".
- Set new limit switch cartridge, check the function of the switches.

### 5. Maintenance

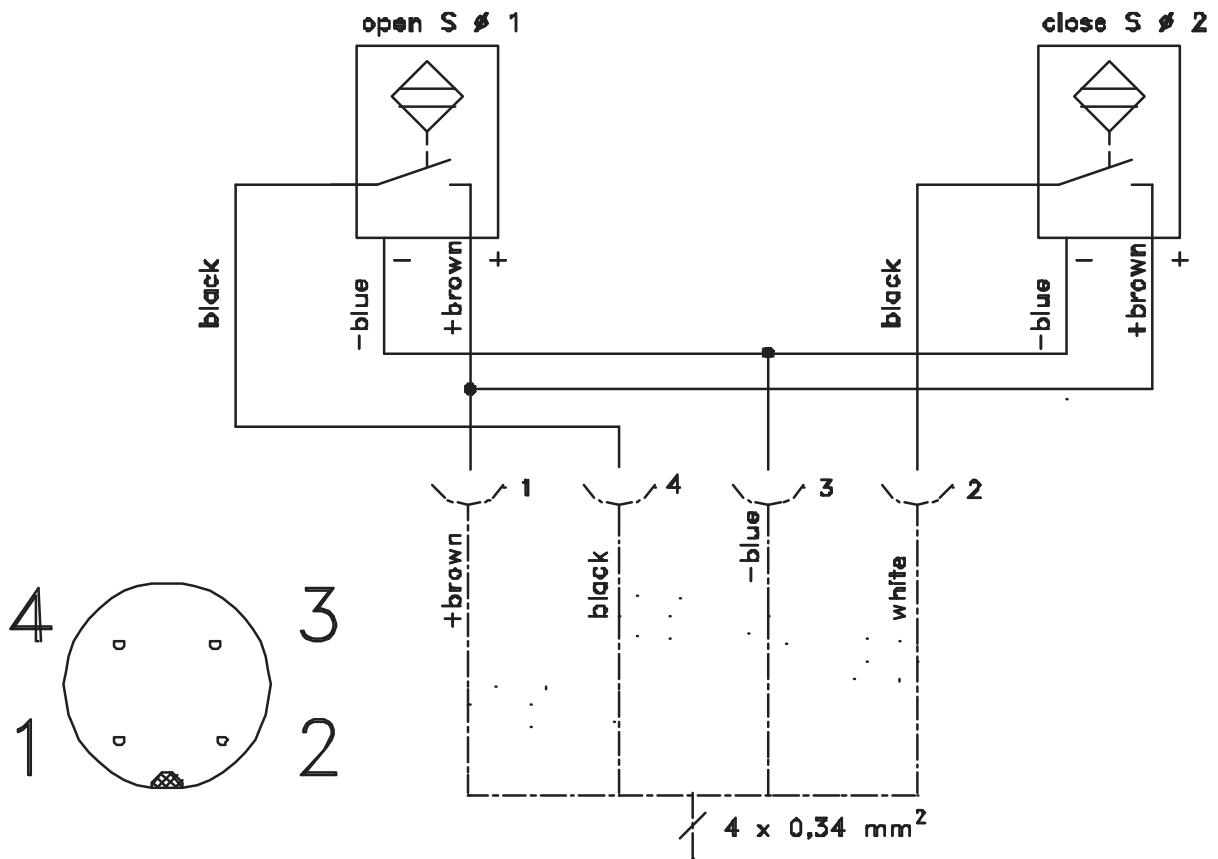
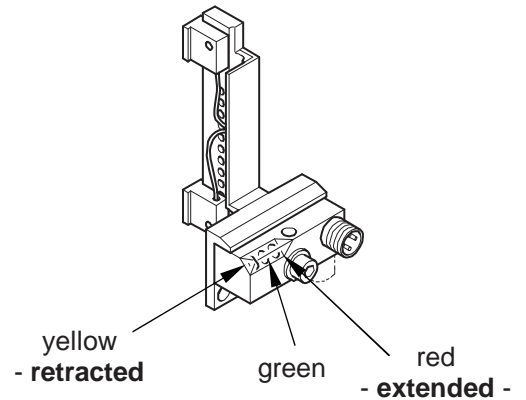
The retractable pin cylinder is fitted with a view to application in series production with low-maintenance bearings and guides. Because of the closed structure of the retractable pin cylinder no special maintenance is necessary.

**Caution:** Damage can be caused to the retractable pin cylinder by cleaning with steam-jet or dry ice.



# Retractable Pin Cylinder SZV, SZV.1 40

Detection set T12, inductive switch, 1 connector



## Technical Specifications

Inductive switch (Standard version)

Short circuit proof

Rated voltage 10-30 V

Working current 32 mA (one initiator connected with PLC)

Closer PNP exit

protective insulation according to DIN VDE 0100



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