

Technical Product Information No. 2070 EN

Press-Safety-Valve PSV 18/3 series 0086-076-02-

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About this Technical Product Information (TPI)

Who is this TPI directed at?

This TPI is directed at qualified personnel who

- are entrusted with the assembly, commissioning and operation of the product and who
- have obtained the necessary qualifications by reading and understanding the instructions by training or instruction

It is intended for

- Fitters at the manufacturer of the machine / plant
- Maintenance fitters at the machine users.

What will you find in the TPI?

The TPI provides all the necessary information for the assembly and maintenance of the product described on the title page

Notes on the symbols used in the text

On the pages which follow, important sections of text are highlighted with the following symbols.



This symbol means:

There is a risk of injury during the activity described or in operational running!



This symbol means:

There is a risk of material damage during the activity described or in operational running!



This symbol indicates sections of text to which particular attention must be paid.

The Ortlinghaus numbering system

Example: 0 111 - 222 - 33 - 444 555

0 = Code for products	_____		_____		_____		_____		_____		_____
Code number for the model range	_____		_____		_____		_____		_____		_____
Code number for design features	_____		_____		_____		_____		_____		_____
Size	_____		_____		_____		_____		_____		_____
Sequential number	_____		_____		_____		_____		_____		_____
Other design features	_____		_____		_____		_____		_____		_____



Please pass on this product information to your customers! If required you can download our TPIs via the Internet from www.ortlinghaus.com in the directory 'Service'. However you may also duplicate the copy you have.

About the product

Purpose and function of the press safety valve (PSV) 0086-076-02-

The PSV 18/3 is for hydraulically actuated clutches and brakes and clutch/brake combined units in mechanical presses according DIN EN 692.

By using the PSV 18/3 a safe start and stop of the press is provided. The PSV 18/3 has limit switches for a dynamic Control of the main spools. Failures caused by incorrect signals or malfunctioning components are ruled out.

When a failure occurs the machine control allows no further press start.



Fig. 1: Press-Safety-Valve PSV 18/3

Function

The PSV contains two parallel operating 3/2 way valves. The main spools can be monitored by the limit switches. In case, the monitoring is required (safety regulations), the main control must monitor the switches on each cycle to a max. deviation of **100 ms**. At a larger deviation no further press start must be possible.

The local safety regulations must be considered.

The pressure in the A port to clutch/brake is only applied when both main spools have shifted.

In case of an operating failure there is no pressure build up possible at the A port.

Operating data

It is only allowed to operate the PSV under the following technical conditions.

Only oil according to the Ortlinghaus reference list is allowed.

For the ISO viscosity groups (VG) the following operating temperatures are allowed:

Oil ISO VG 22:	+ 5°C to + 40°C
Oil ISO VG 32:	+ 25°C to + 50°C
Oil ISO VG 46:	+ 35°C to + 60°C
Operating pressure:	10 bis 100 bar

Operating data for the limit switch

max. 400 V, 25 A

Requirements

The main control of the press must be according DIN EN 692.

The PSV is a system, which meets the requirements of category 4, EN 954-1, provided that the electrical control is carried out according category 4.

Electrical characteristics

Type	Voltage	Ortlinghaus-Nr.
PSV 18/3	24 V, DC	0086-076-02-000000
PSV 18/3	220/230 V, 50/60 Hz	0086-076-02-001000
PSV 18/3	42 V, 50 Hz	0086-076-02-003000
PSV 18/3	110/115 V, 50/60 Hz	0086-076-02-007000
PSV 18/3	205 V, DC	0086-076-02-014000

Installation

The installation must be carried out by trained personnel.

There must be a throttle in the P port of the PSV to avoid pressure peaks. Only Ortlinghaus throttles are allowed.

The PSV must be located as close as possible to the clutch and brake.

For safety reasons no further function element (valve), which may close the hydraulic connection between PSV and clutch/brake, is permitted.

CAUTION! Do not use liquid sealings for piping.

The valve coils must have separate electrical wiring to the main control. The signal processing to the main press control must have to be according DIN EN 629. The electrical data of the press control must meet the electrical requirements of the PSV.

After the installation a functional test has to be carried out by trained personnel.



Maintenance

Filtration of the oil (filling and operation):
10 µm nominal

There is no special maintenance required.

Repairs must be carried out by Ortlinghaus only.

In case of failures the complete PSV must be replaced.

Characteristics PSV 12

Magnets

		DC	AC
Power rating:	pick-up	33 W	175 VA
	holding	33 W	60 VA

Cyclic duration factor: 100 % continuous duty

Enclosure type: IP 65

Connection: P = G1/2
A = G1/2
T = G1/2

Press-Safety-Valve 18/3

Series 0086-076-02-0 . . 000

