

- **Compact design**
- **Easily adaptable to operating conditions**
- **Reduction of noise, wear and tear**

The soft stop valve can be used for a soft engagement of the pneumatically operated brake on presses. It is connected downstream of the safety valve and functions as a 2/2 directional control valve which is normally open. Switching position is monitored via a mechanical or proximity switch.

For detailed description please see connection diagram on page 3.

The soft stop valve can be directly flanged on port 3 (R) of the safety valves **XS 20, XS/XS_z 32 and XS/XS_z 50.**



Technical data:

Operating pressure
2 to 8 bar

Fluid:
Filtered and lubricated air ¹⁾

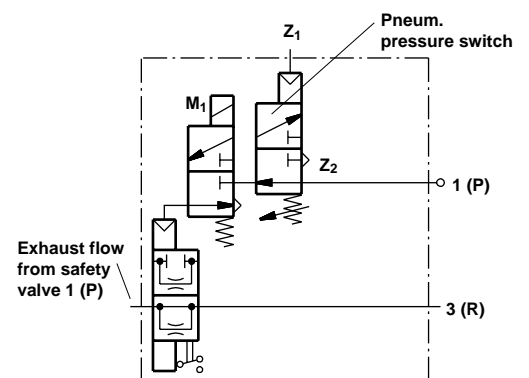
Fluid temperature:
- 10 to + 40 °C ²⁾

Ambient temperature:
- 10 to + 60 °C ²⁾

Materials: Housing: Aluminium alloy
Seals: NBR (Perbunan)
AU (Vulkolan)

Ordering example:

To order, quote part number, e.g.
1022023.0200 for nominal size 32 soft stop valve for **XS 20 or XS/XS_z 32.**



- ¹⁾ Oil recommendation: Shell Hydrol DO 32, ESSO Febis K 32 (as of July 1992) or comparable oils with DVI values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).
- ²⁾ To secure the safety function of the valve at subzero temperatures, it is important that the air is dry enough to prevent an icing of the valve.



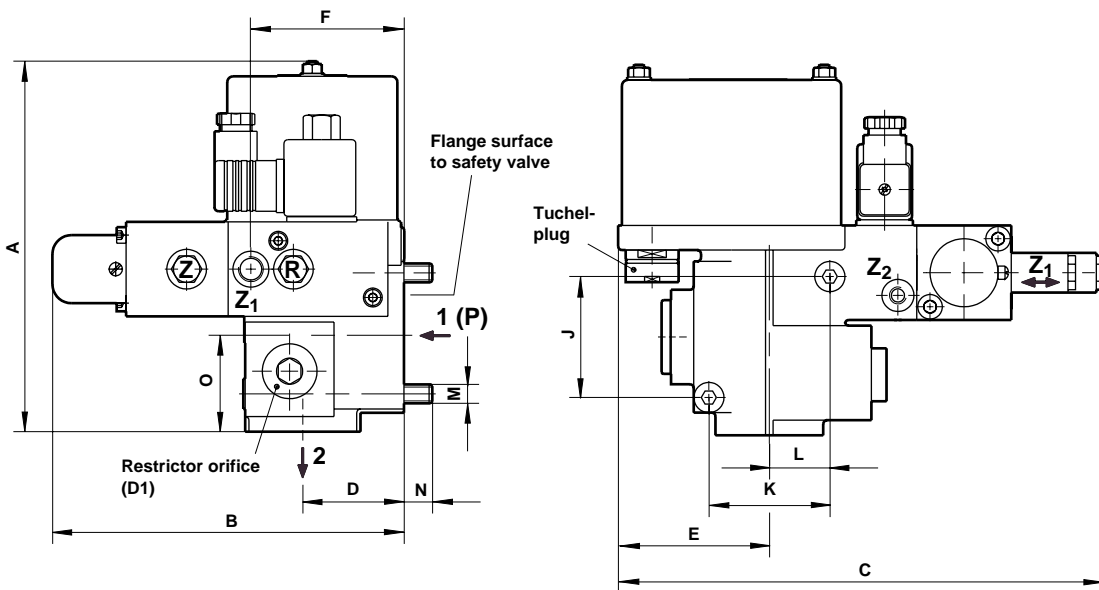
General information

Size [mm]	Control pressure [bar]		Total weight (kg)	Flange-mounted to	Cat. No.		Voltage
	min.	max.			Valve	Solenoid	
32	2	8	2.95	XS 20 and 32	1022023.0200		AC - DC
50	2	8	5.6	XS/XSz 32 and 50	1022035.0800		AC - DC

Caution!

The 2/2 directional control valve must remain in the open position during dangerous movement from TDC to BDC. Monitoring of switching position must be integrated into the press controls.

All solenoids are delivered without plugs. If plugs are necessary, please order separately, cat. no. **0570275**



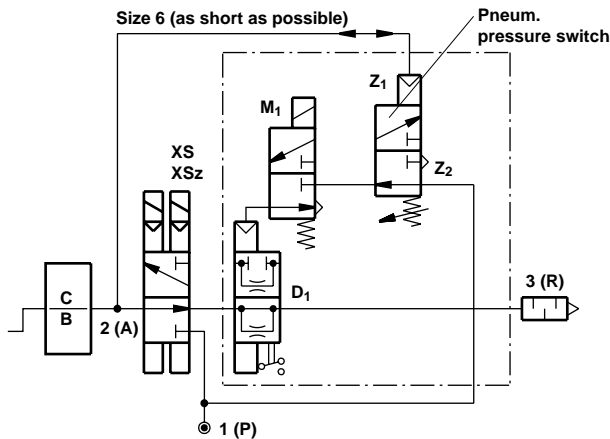
Dimensions in mm

Cat. No.	Z1	Z2	Ports		A	B	C	D	E	F	J	K	L	M	N	O
			2	Z												
1022023.0200	G 1/4	G 1/8	G 1 1/4	G 1/4	196	186	265	52	80	81	64	64	32	M 10	15	52
1022035.0800	G 1/4	G 1/4	G 2	G 1/4	236	228	280	80	87	164.5	64	64	26	M 10	15	68

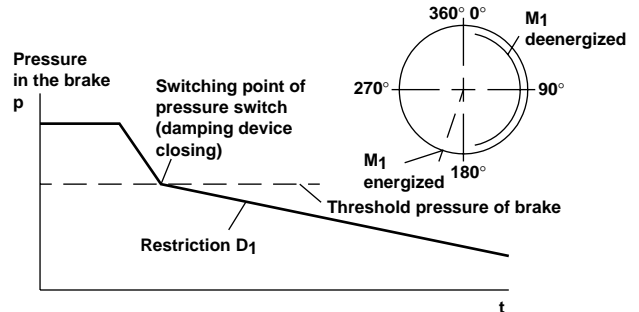


Application of damping devices with pneumatic pressure switch

Connection diagram



Damped braking



The 2/2 directional control valve fitted downstream of the restriction D1 in the bypass and an integrated pneumatic pressure switch is open during the downward movement of the press slide (solenoid valve M1 de-energized). This ensures quick exhausting of the brake and thus a short braking angle in case of an emergency stop (downward movement).

Once the BDC has been passed, the solenoid valve M1 is energized. However, maximum brake pressure is still present at the pressure switch. After the safety valve has been switched off, brake exhausts via the open 2/2 directional control valve. The pressure drops rapidly up to the threshold pressure of the brake. The pressure switch

set to this value, is triggered and works in conjunction with the energized solenoid valve M1 to ensure that the 2/2 directional control valve switches to the restricted position D1.

Further exhaust can only take place via cross section of the restriction. This ensures a soft braking action in the safe area.

Caution: The 2/2 directional control valve must remain in the open position before starting a new cycle. The monitor of open position has to be integrated into the press control system.



Technical data for inductive switch

Inductive switch is necessary for monitoring of switching position and must be integrated into press control.

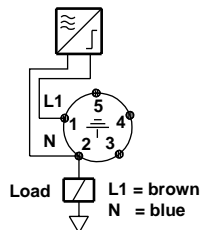
Switching function : Normally open

Switch clearance Sr	2 mm ± 10 %
Switching hysteresis	≥ 1 % ... ≤ 15 %
Reproductibility	0,01 mm
Temperature drift	≤ 10 %
Ambient temperature	- 25 ... + 70 °C
Degree of protection	IP 67

AC voltage

Voltage range	90 ... 250 V AC
Maximum load current	200 mA
No-load current	≤ 5 VA
Minimum load	≥ 4 VA
Voltage drop	without LED ≥ 7 / with LED ≤ 9,5 V
Switching frequency	25 Hz
Insulation	to VDE 0660
Connection cable	2 x 0,5 mm ²
Color code	Yellow

Connection diagramm



Inductive switch Cat. No. **0662927**

A suitable air treatment unit (dehydration, filtration, lubrication) must be connected upstream of pressure port P. Lubrication can be omitted if the connected consuming device and all additional equipment is suited for oil-free operation (see page 1). Degree of filtration: 25 µm.
It is the responsibility of the purchaser and/or installer of the Norgren-herion safety valves to make sure that the valve and all other components comply with all relevant national regulations and the specifications of the local safety associations.
The valve should be checked at intervals depending on the loads to which it is subjected, at least, however, once a year. The relevant tests must be carried out according to the corresponding operation and maintenance instructions of the unit and the local safety regulations. In case of malfunctions the unit has to be tested and/or replaced immediately.
For information on installation, operation and maintenance of the damping modules please see maintenance manual no. 5.4.326.

All liability is denied for unauthorised modification of the units, installation or usage not in accordance with the manual, the local safety requirements or the principles of EN 692 and EN 954-1.