

Control block for two-hand start ZSB

FESTO



Characteristics

At a glance

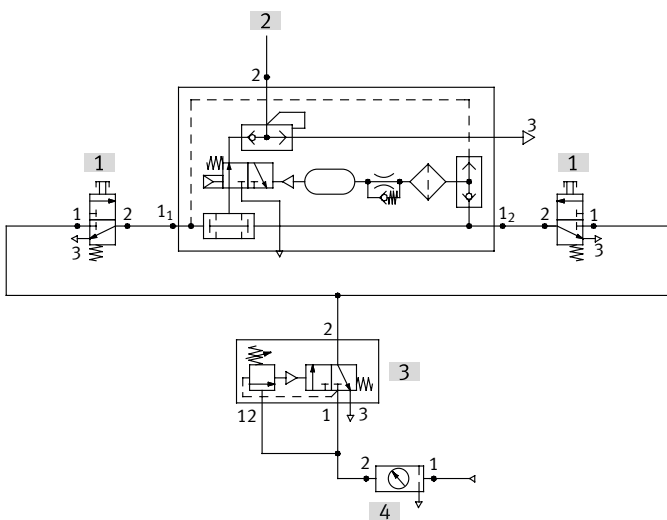
The pneumatic control block for two-hand start ZSB is used when the operator is exposed to a risk of an accident during manual operation, e.g. when triggering compressed air cylinders or equipment where both hands must be out of the danger zone during start-up.

The ZSB only switches when both inputs 1₁ and 1₂ of the ZSB are supplied simultaneously, i.e. within max. 0.5 seconds, by two external 3/2-way pushbutton valves. There is an output signal at connection 2. As long as both pushbutton valves are activated, outlet 2 is pressurised.

If one or both pushbutton valves are released, the flow is immediately interrupted and output 2 is no longer pressurised. The system exhausts from 2 to 3.

The pneumatic control block for two-hand start is a safety device as defined in the EU Machinery Directive. It conforms to category 1, PL "c" according to EN ISO 13849-1 or to Type III A according to EN 574.

Application example



[1] Front panel valve with pushbutton actuator, e.g. SV-3, T-30

[2] Control chain

[3] Pressure switching valve, e.g. VD-3-PK-3

[4] Maintenance devices, e.g. MS or D series

Note: When installing the two manual pushbuttons for actuating the control block for two-hand start, make sure that the protective effect cannot easily be overridden, e.g. through actuation with a hand and elbow etc. If necessary, an additional guard plate must be attached to the pushbuttons!

Type code

001	Series	
ZSB	Control block for two-hand start	
002	Pneumatic connection	
1/8	Female thread G1/8	

003	Generation	
B	Second generation	

Datasheet

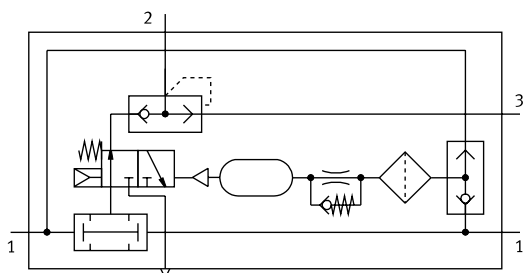
Safety characteristics

Safety function	Two-hand control
Performance Level (PL)	Two-hand operation/category 1, Performance Level c
Well-tried component	Yes
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27

General technical data

Pneumatic connection, port 2	G1/8
Pneumatic connection, port 3	G1/8
Nominal size	4 mm
Type of actuation	Pneumatic
Type of mounting	With through-hole Via female thread Either:
Mounting position	optional
Standard nominal flow rate (standardised to DIN 1343)	50 l/min

Function



Operating and environmental conditions

Operating pressure	0.4 ... 0.8 MPa
Operating pressure	4 ... 8 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	0 ... 60°C
Corrosion resistance class CRC ¹⁾	1 - Low corrosion stress
CE mark (see declaration of conformity) ²⁾	To EC Machinery Directive
UKCA marking (see declaration of conformity) ³⁾	To UK regulations for machines
Certificate issuing authority	IFA 1201046 Intertek UK-MCR-0080

1) More information visit www.festo.com/x/topic/kbk

2) More information www.festo.com/catalogue/zsb → Support/Downloads.

3) More information www.festo.com/catalogue/zsb → Support/Downloads.

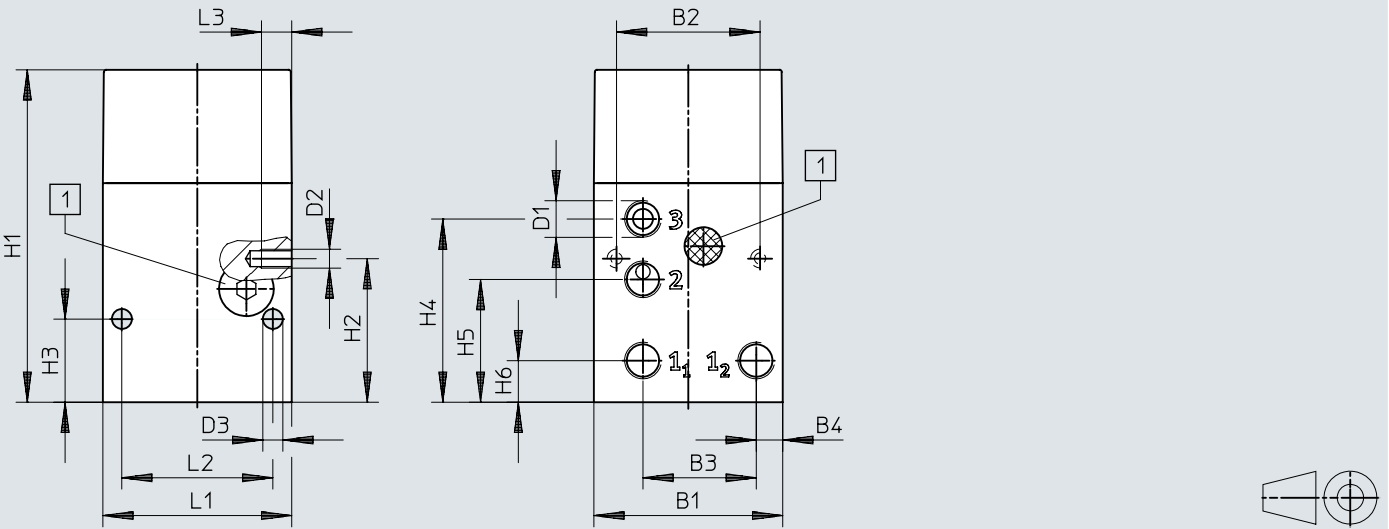
Materials

Material housing	Wrought aluminium alloy, Anodised
Material cover	Die-cast aluminium
Material seals	NBR
Note on materials	RoHS-compliant
LABS (PWS) conformity	VDMA24364-B1/B2-L

Datasheet

Dimensions – Control blocks for two-hand start

Download CAD data www.festo.com



[1] Filter

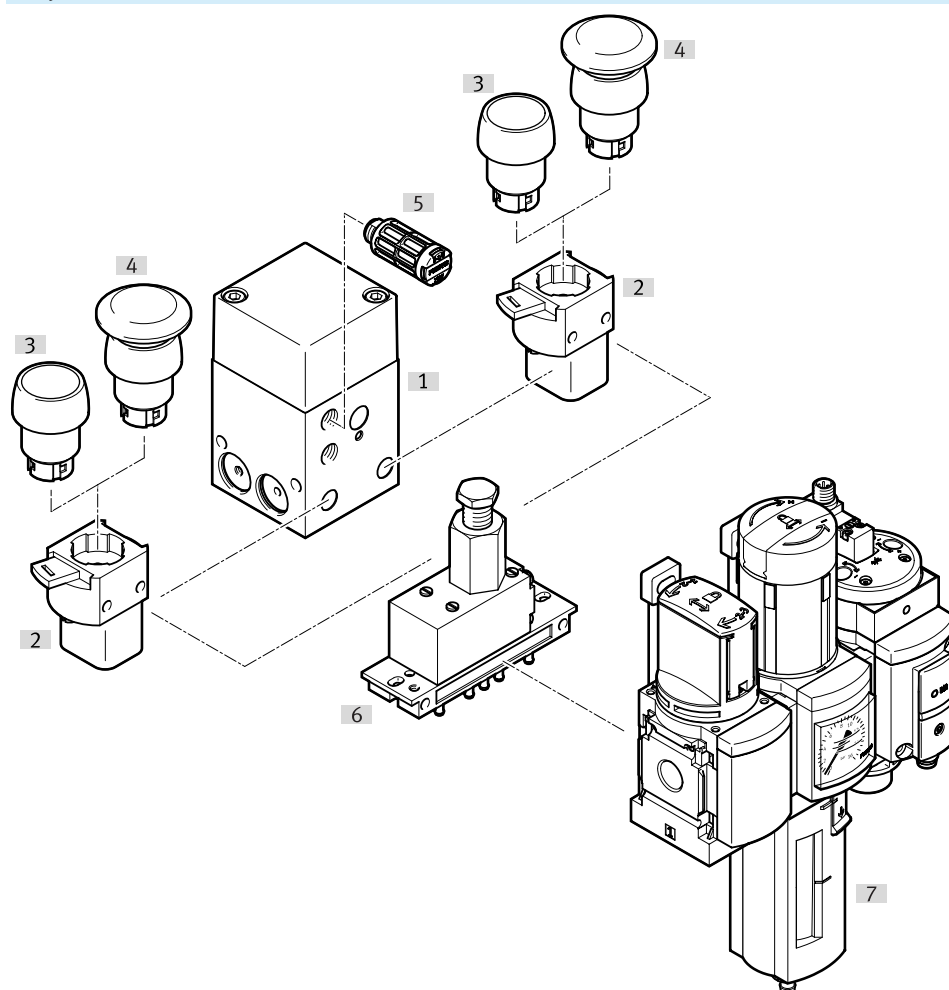
	B1	B2	B3	B4	D1	D2	D3 Ø	H1	H2	H3	H4	H5	H6	L1	L2	L3
ZSB	50	38	30,1	7	G1/8	M5	5,3	88	38	22	48,5	32,5	11	50	40	8

Ordering data

Ordering data						
	Pneumatic connection, port 2	Pneumatic connection, port 3	Operating pressure	Product weight	Part no.	Type
	G1/8	G1/8	0.4 ... 0.8 MPa	420 g	576656	ZSB-1/8-B

Peripherals

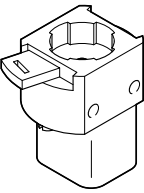
Peripherals overview



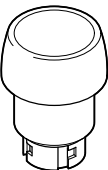
Accessories		→ Link
Type/order code	Description	
[1] Control block for two-hand start ZSB		zsb
[2] Front panel valve SV	Poppet valve with quick- snap-in coupling for actuator attachments	8
[3] Pushbutton actuator T	Actuator attachment for front panel valve SV	8
[4] Mushroom pushbutton P	Actuator attachment for front panel valve SV	8
[5] Silencer U	For noise reduction at the exhaust port	8
[6] Pressure sequence valve VD	For securing the minimum pressure of 4 bar required for operation	8
[7] Service unit combination – MS series	For compressed air preparation	msb
Service unit combination – D series	For compressed air preparation (without illustration)	lfr*k*

Accessories

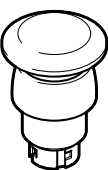
Front panel valve SV (3/2-way valve, closed)

	Pneumatic connection, port 1	Operating pressure	Product weight	Part no.	Type
	M5	-0.095 ... 0.8 MPa	40 g	6817	SV-3-M5

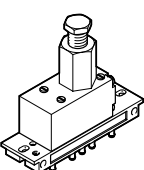
Pushbutton actuator T

	Colour	Installation diameter	Product weight	Part no.	Type
	Black	22.5 mm	14 g	9289	T-22-SW
		30.5 mm	22 g	9291	T-30-SW

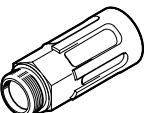
Mushroom pushbutton P

	Colour	Installation diameter	Product weight	Part no.	Type
	Black	22.5 mm	20 g	9293	P-22-SW
		30.5 mm	28 g	9295	P-30-SW

Pressure sequence valve VD (3/2-way valve, normally closed, switching pressure adjustable)

	Pneumatic connection, port 1	Nominal size	Operating pressure	Product weight	Part no.	Type
	PK-3	2.5 mm	0.18 ... 0.8 MPa	220 g	9270	VD-3-PK-3

Silencer U

	Pneumatic connection	Material housing	Material shock absorber insert	Product weight	Part no.	Type
	G1/8		PE	2.3 g	★ 2307	U-1/8
		Aluminium		8 g	6841	U-1/8-B