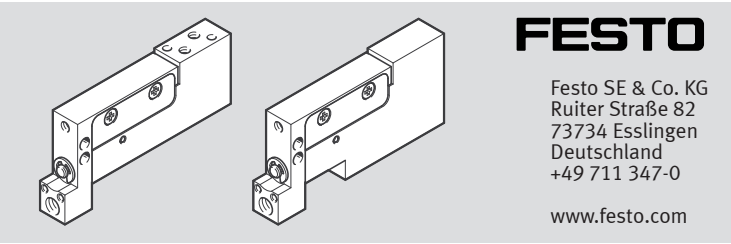


DGSC-6-10-P-...

Mini-slide



Operating instructions

8168642
2022-02b
[8168644]



Translation of the original instructions

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1 Applicable Documents

All available documents for the product → www.festo.com/sp.

2 Safety

2.1 Safety instructions

- Take into account the ambient conditions at the location of use.
- Only use the product in its original condition without unauthorised modifications.
- Observe the identifications on the product.
- Store the product in a cool, dry environment protected from UV and corrosion. Keep storage times short.
- Before working on the product, switch off the compressed air supply and lock it to prevent it from being switched on again.
- Have the product repaired by the Festo repair service only.
- Observe the tightening torques. Unless otherwise specified, the tolerance is ± 20%.

2.2 Intended use

The product is intended for the space-saving transport of masses. The product is approved for slide operating mode.

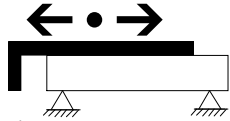


Fig.1

2.3 Training of qualified personnel

Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. The qualified personnel have skills and experience in dealing with pneumatic (open-loop) control technology.

3 Additional information

- Contact the regional Festo contact if you have technical problems → www.festo.com.
- Accessories and spare parts → www.festo.com/catalogue.

4 Product overview

4.1 Function

The product is a non-rotating single-piston drive with bearing guide. The slide is moved back and forth by alternate pressurisation of the supply ports. In the retracted end position, the slide is braked by elastic cushioning rings with a mechanical fixed stop. In the extended end position, an integrated spring serves as stroke compensation to avoid high forces on the workpiece during handling.

4.2 Product design

DGSC-6-10-PL

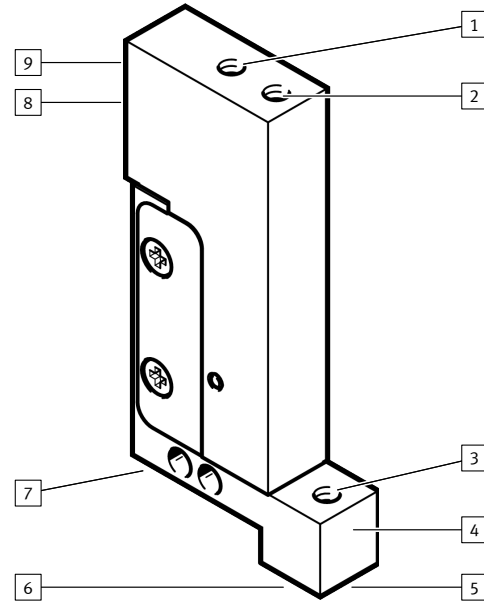


Fig. 2: Product design DGSC-6-10-PL

- | | | | |
|---|--|---|---|
| 1 | Supply port retracting | 6 | M5 thread for suction cup with connection or mounting |
| 2 | Supply port extending | 7 | M3 thread, e.g. for tubing holder |
| 3 | Vacuum port | 8 | M3 thread for mounting, 2x |
| 4 | Slide | 9 | Centre hole 2 mm according to DIN 6325, 2x |
| 5 | Centre hole 1.5 mm according to DIN 6325, 2x | | |

DGSC-6-10-PP

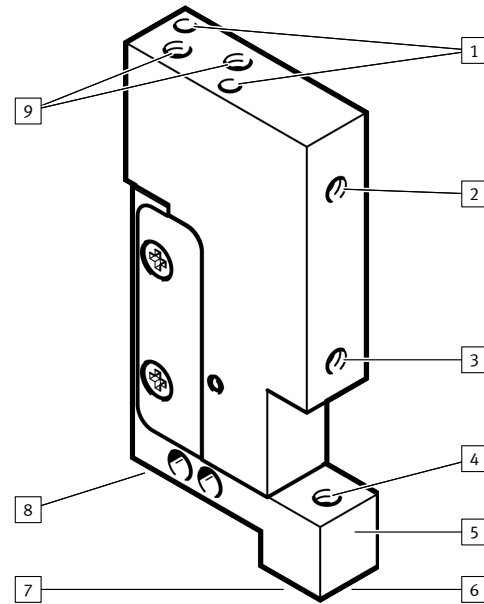


Fig. 3: Product design DGSC-6-10-P-P

- | | | | |
|---|--|---|---|
| 1 | Centre hole 2 mm according to DIN 6325 | 6 | Centre hole 1.5 mm according to DIN 6325 |
| 2 | Supply port extending | 7 | M5 thread for suction cup with connection or mounting |
| 3 | Supply port retracting | 8 | M3 thread, e.g. for tubing holder |
| 4 | Vacuum port | 9 | M3 thread for mounting |
| 5 | Slide | | |

5 Transport

NOTICE

Unexpected and unbraked movement of components

- Secure moving components for transport.

6 Mounting

i
The product can be attached to the housing or the slide.

- Use suitable fastening material depending on the type of mounting.
- Observe the maximum screw-in length of the screws.
- Mount the product according to the type of mounting.
- Maintain the maximum tightening torques.
- Mount the product without tension.

Mounting on the housing

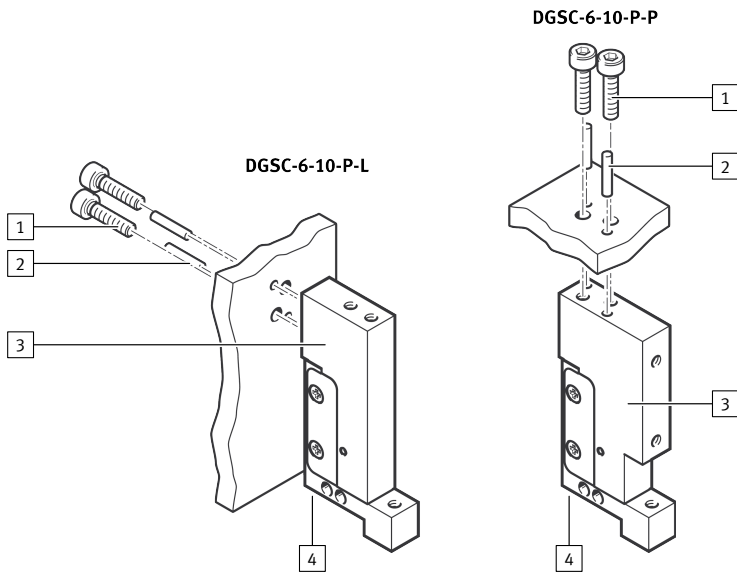


Fig. 4: Mounting on the housing

- | | |
|---|--|
| 1 M3 screw according to DIN 912, 2x | 3 Housing |
| 2 Cylindrical pin 2 mm according to DIN 6325, 2x | 4 M3 thread, e.g. for tubing holder |

Screw-in length and tightening torque

Position	1	4
Max. screw-in length [mm]	4.5	4.0
Max. tightening torque [Nm]	1.2	1.2

Tab. 1: Screw-in length and tightening torque

Mounting on slide

- i**
- Support the slide from the opposite side when pressing in the cylindrical pins.
 - When tightening the screw on the slide, counterhold with an 8 mm open-ended spanner.

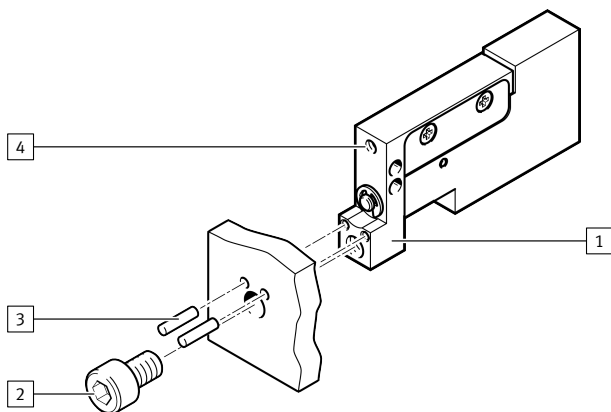


Fig. 5: Mounting on the slide, DGSC-6-10-PP as an example

- | | |
|--|---|
| 1 Slide | 3 Cylindrical pin 1.5 mm according to DIN 6325, 2x |
| 2 M5 screw according to DIN 912, 2x | 4 M3 thread, e.g. for tubing holder |

Screw-in length and tightening torque

Position	3	4
Max. screw-in length [mm]	4.0	4.0
Max. tightening torque [Nm]	5.9	1.2

Tab. 2: Screw-in length and tightening torque

7 Installation

1. Screw suitable fittings or accessories into the pneumatic ports. Maintain the maximum tightening torques.
2. Connect tubing to the pneumatic ports.

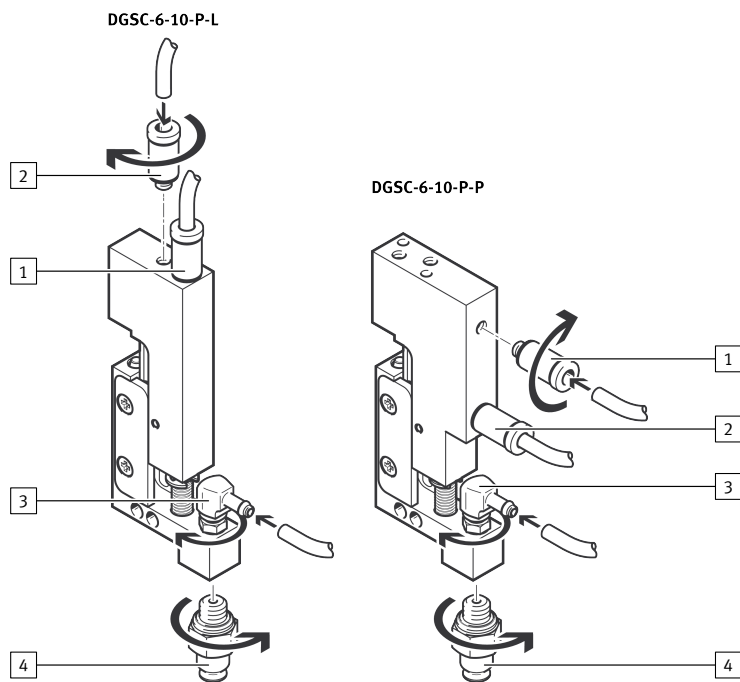


Fig. 6: Installation

- | | |
|---------------------------------|--------------------------------------|
| 1 Supply port extending | 3 Vacuum port |
| 2 Supply port retracting | 4 Suction cup with connection |

Connection thread and tightening torques

Position	1, 2, 3	4
Connecting thread	M3	M5
Max. tightening torque [Nm]	1.2	5.9

Tab. 3: Connection thread and tightening torques

8 Commissioning

- Pressurise the product slowly.

9 Maintenance

9.1 Cleaning

- Clean the product as required with a clean soft cloth and suitable cleaning agents compatible to the material.

9.2 Lubrication

i

The product is initially lubricated.

Recommendation:

- Regrease the guide after 5 million cycles.

10 Fault clearance

Fault description	Cause	Remedy
The slide moves unevenly.	The one-way flow control valves are not installed correctly.	Control the exhaust air flow.
The slide is in initial position despite pressurisation.	The tubing is faulty.	Check the tubing.
The slide speed is too low.	The air volume is insufficient.	Increase the connection cross-sections. Check the flow control valve setting. Connect a volume upstream.
The slide stops in the end position without cushioning.	The speed is too high.	Reduce the speed.
	The cushioning is too low.	Reduce the speed. Check the cushioning rings and replace if necessary.
	The air cushion is not present.	Pressurise both supply ports simultaneously, then exhaust one side.
	The payload is too high.	Reduce the payload.

Tab. 4: Fault clearance

11 Modification

In its delivery status the product is equipped with a spring for stroke compensation. Replacing the spring with the enclosed blue spacer allows the stroke compensation of the extended end position to be suppressed and converted to a fixed stop.

- Shut off the compressed air supply and lock to prevent reactivation.

Conversion to fixed stop

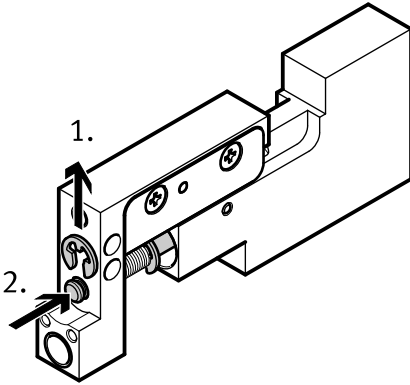
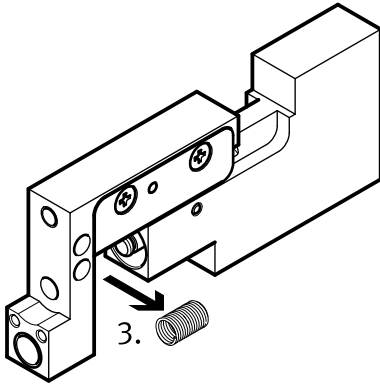
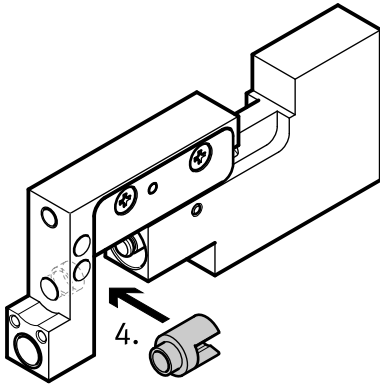


Fig.7

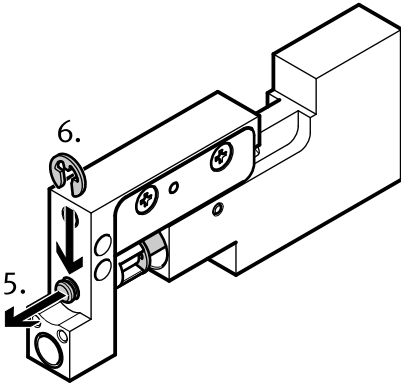
1. Remove the shaft circlip.
2. Push in the shaft.



3. Remove the spring.



4. Insert the enclosed blue spacer in the correct position.



5. Slide out the shaft.
6. Install the shaft circlip.

12 Technical data

DGSC-6-10-P-...		-L	-P
Design	Double-acting drive with Scotch yoke system and ball bearing cage guide		
Mounting position	Any		
Cushioning	Elastic cushioning ring on both sides		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Information on the operating medium	lubricated operation possible, in which case lubricated operation will always be required		
Operating pressure	[MPa]	0.1 ... 0.6	
	[bar]	1.0 ... 6.0	
	[psi]	14.5 ... 87.0	
Ambient temperature	[°C]	10 ... 50	
Repetition accuracy	[mm]	<0.2	
Product weight	[g]	42	52
Moving mass	[g]	17	
Max. payload	[g]	30	
Length of stroke compensation via spring	[mm]	-2.5 ± 1	
Max. forces and torques	→ www.festo.com/catalogue		
Theoretical force at 0.6 MPa (6 bar, 87 psi)			
Extending	[N]	17.0	
Retracting	[N]	12.7	
Materials			
Piston rod, housing	High-alloy stainless steel		
Seals	Nitrile rubber		

Tab. 5: Technical data