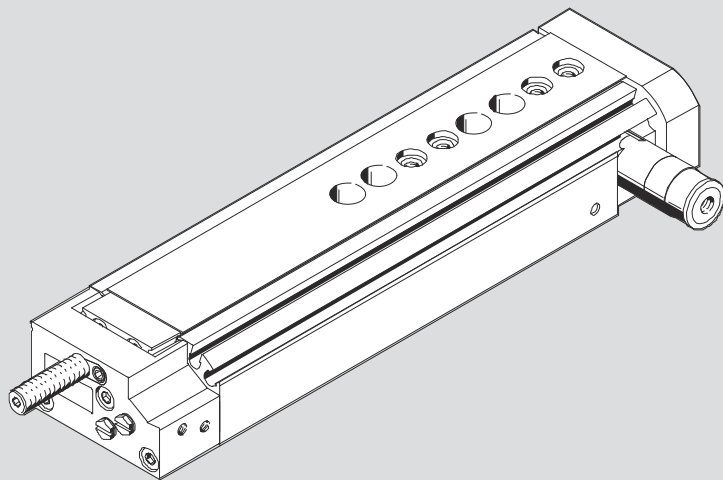


DGSL-...-C-...
Mini slide



FESTO

Addendum document I
Clamping unit



8189676

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2024-07c
[8189678]

Original instructions

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1 Applicable documents



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

Documents	Product	Table of contents
Operating instruction	Mini slide DGSL	–

Tab. 1: Applicable documents

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 $\pm 20\%$.

2.2 Intended use

The clamping unit securely clamps the piston rod of the mini slide in an intermediate position or end position.

2.3 Foreseeable misuse

Clamping the piston rod in the motion sequence, e.g. brakes, is not permissible.

2.4 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 Product design

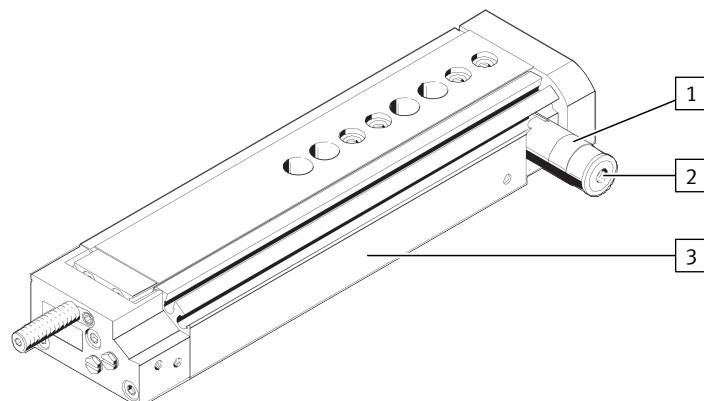


Fig. 1: Product design

- 1 Clamping unit for mini slide
DGS-...-C-...
- 2 Compressed air connection
- 3 Mini slide DGSL

4.2 Function

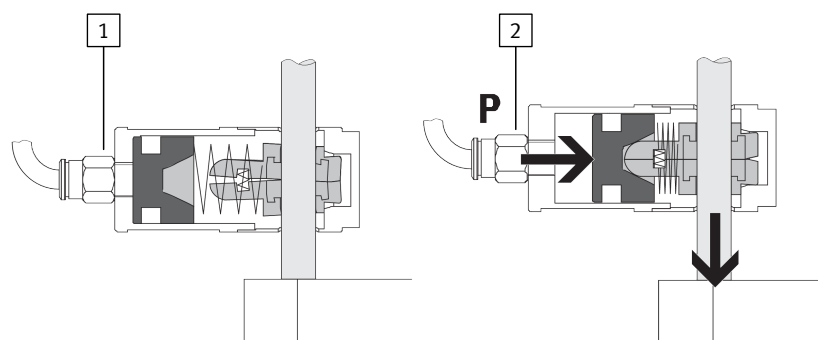


Fig. 2: Function DGSL-...-C-...

- 1 Compressed air connection
- 2 Compressed air connection

The exhaust at the compressed air connection [1] forces a spring to push the clamping jaws apart. The spread of the clamping jaws requires them to be set at an angle on the piston rod. This friction connection holds the piston rod.

The pressurisation at the compressed air connection [2] causes a piston to close the clamping jaws. The holes of the clamping jaws are along an axis with the piston rod. The piston rod can move freely.

5 Installation

5.1 Installation, pneumatic



Note the restricted mounting option when mounting the proximity switches in the lower slot.

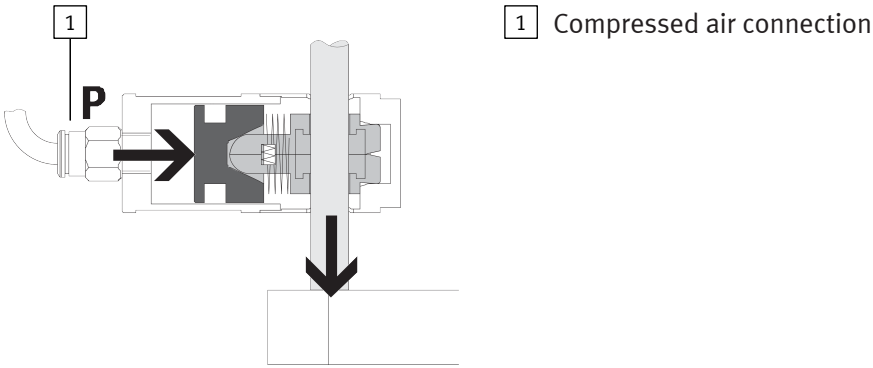


Fig. 3: Connecting tubing to compressed air connection

- Connect tubing to the compressed air connection . Tightening torque: 0.5 Nm

5.2 Actuating mini slide

Examples for actuation of the mini slide:

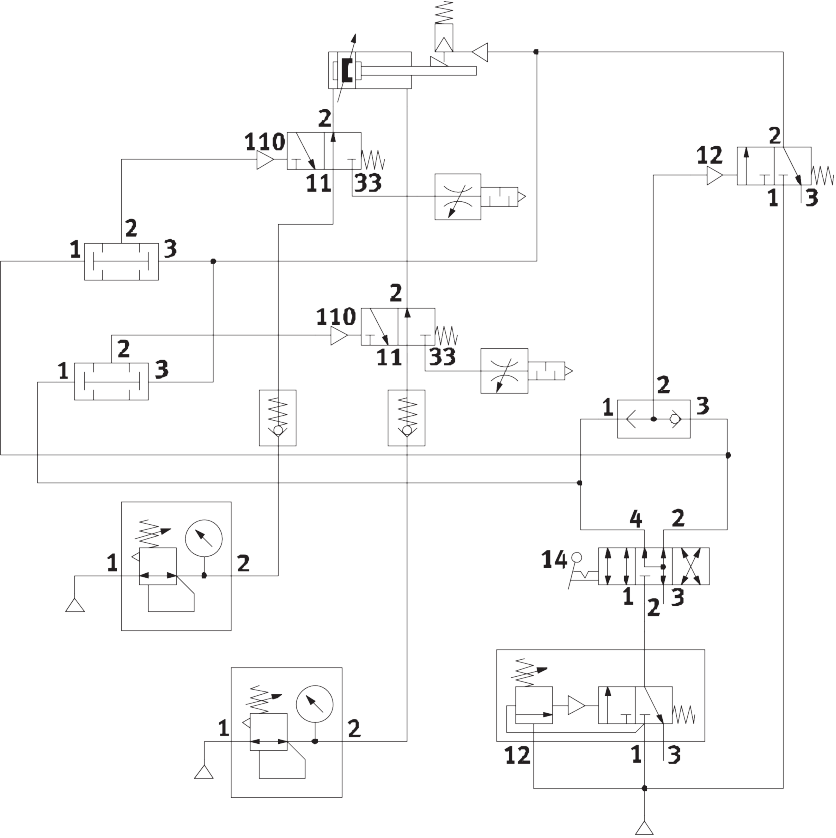


Fig. 4: Approach to any position and clamping

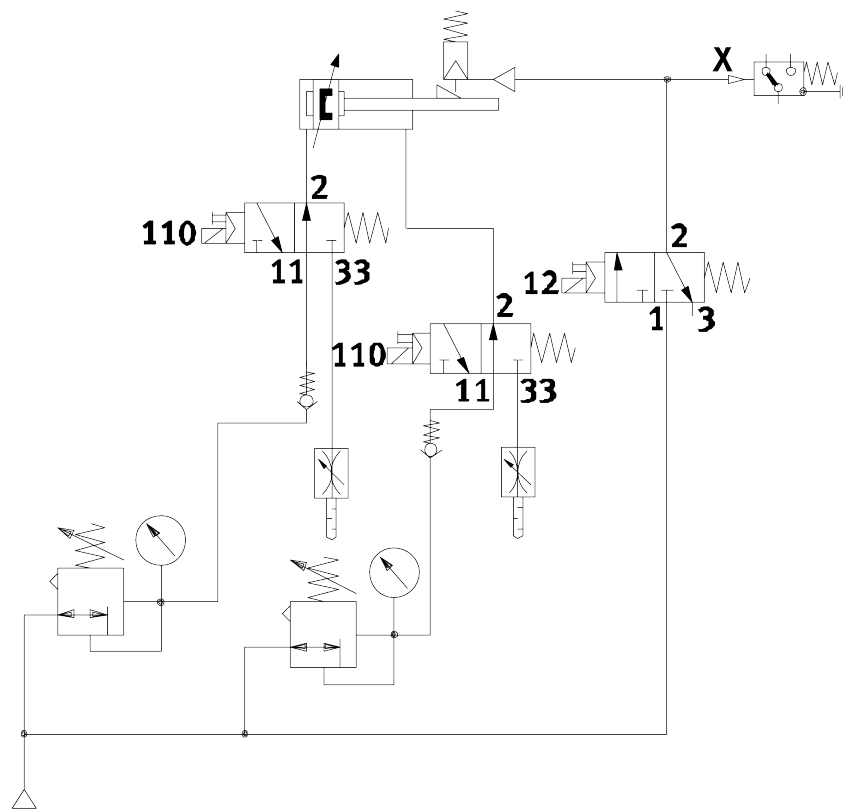


Fig. 5: Clamping in case of pressure failure

6 Commissioning

Releasing clamping

DGSL-...-C-...	-6	-8	-10	-12	-16	-20	-25
Screw	M5						
Screw length	[mm]		8	10	12		

Tab. 2: Screw size

1. Exhaust the mini slide.
2. Move the slide manually to the desired end position and simultaneously manually release the clamping with the M5 screw. Note the screw size → Tab. 2 Screw size.
3. Pressurise the compressed air connection at the end position.
4. Pressurise the clamping unit.
5. Commission the mini slide → 1 Applicable documents.

7 Operation

The clamping unit must not be operated after a pressure failure until a functional test has been carried out.

- Clamping may only take place in the intermediate or end positions of the mini slide, except in the case of a pressure failure.
- The stationary, clamped piston rod in an intermediate or end position may only be pressurised on the stroke-side chamber. This prevents the piston from moving against an unpressurised chamber when the clamping is released.

Approaching mini slide

The mini slide is approached from an intermediate position or end position as follows:

- Pressurise the compressed air connections simultaneously:
 - The stroke-side chamber in the intermediate position or end position on the mini slide.
 - The compressed air connection on the clamping unit.

Clamping piston rod during operation

1. Pressurise the compressed air connection on the mini slide in the intermediate position or end position.
2. Exhaust the clamping unit.
3. Exhaust the mini slide.

Checking clamping

If the slide is not in the intermediate or end position after a sudden pressure failure, the clamping must be checked. The clamping can be checked as follows:

- Manually
- By pressurising the compressed air connection on both sides of the mini slide and then exhausting one compressed air connection. The clamping must be released at the same time.

Safe clamping without payload must be checked regularly or after a pressure failure.

1. Pressurise the mini slide in the intermediate or end position.
2. Exhaust the clamping unit.
3. Pressurise the mini slide in the stroke direction.
 - ⇒ The piston rod must not move.

8 Cleaning

- Clean the product with a clean, soft cloth and non-abrasive cleaning agents.
- For use with reduced particle emission:
- Remove abraded particles and soil from the product:
 - Prior to initial commissioning
 - Regularly during operation

9 Fault clearance

Fault description	Cause	Remedy
The slide moves when the clamping unit is exhausted.	Wear	Send the mini slide to Festo.
	Permanent manual unlocking.	Unscrew the M5 screw from the compressed air connection → 4.1 Product design.
	The operating pressure at the clamping unit is too high.	Reduce the operating pressure → 10 Technical data.
	The mass is too high.	Reduce the mass.
	Contamination of the piston rod.	Clean the piston rod → 8 Cleaning.
	Incorrect actuation	Check the pneumatic actuation.
The slide does not move despite the pressurised clamping unit.	The operating pressure at the clamping unit is too low.	Increase the operating pressure → 10 Technical data.

Fault description	Cause	Remedy
After pressurisation, the slide travels to the end position at high speed.	The slide is moving against an unpressurised chamber.	Always move the slide against a pressurised chamber.
		Check the mini slide for malfunctions → 1 Applicable documents.

Tab. 3: Fault clearance

10 Technical data

DGSL-...-C-...		-6	-8	-10	-12	-16	-20	-25
Design		Spring-loaded clamping profile						
Operating conditions								
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]	0.3 ... 1						
	[bar]	3 ... 10						
	[psi]	44 ... 145						
Shutter speed	[s]	0.02						
Max. static holding force of the clamping unit	[N]	80		180		350		600
Ambient temperature	[°C]	0 ... +60						
Materials								
Housing, cover		Anodised aluminium						
Piston		Polyacetal						
Spring		Spring steel						
Clamping jaws		Brass						
Seals		Nitrile rubber, polyurethane						

Tab. 4: Technical data, clamping unit

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