bürkert
FLUID CONTROL SYSTEMS

Type CLASSIC

Stroke limitation · Min./max. stroke limitation
Hand wheel · Electrical position feedback

Hubbegrenzung · Min./max. Hubbegrenzung
Handrad · Elektrischer Stellungsrückmelder

Limitation de course · Limitation de course min./max.
Volant · Indicateur électrique de position

Operating Instructions

Bedienungsanleitung
Manuel d‘utilisation

MAN 1000012707 ML Version: SStatus: RL (released | freigegeben) printed: 13.01.2026

Operating Instructions 2412/10_EU-ML_00804700 / Original DE

Assembly instructions for accessories

Content

1 The instructions

The assembly instructions describe the procedure for installing and starting up the accessories type 2000, 2006, 2012, 2030, 2031, 2032 and 2033.

Keep these instructions in a place that is easily accessible to all users and ensure they are available to all new owners of the device.

The manual contains important safety information.

Failure to observe these instructions may result in hazardous situations.

- The instructions must be read and understood before starting the installation work.

1.1 Symbols

DANGER!

Warns of an immediate danger.

- Failure to observe these instructions will result in death or serious injuries.

WARNING!

Warns of a potentially hazardous situation.

- Failure to observe these instructions may result in serious injuries or death.

CAUTION!

Warns of a potential danger.

- Failure to observe these instructions may result in moderate or minor injuries.

NOTE!

Warns of damage.

- Failure to observe the warning may result in damage to the device or the equipment.

Indicates important additional information, tips and recommendations.

refers to information in these operating instructions or in other documentation.

- highlights instructions to avoid a danger.

→ highlights a work step which you must carry out.

1.2 Definition of terms

The term “device” used in these instructions always stands for Type 2000, 2006, 2012, 2030, 2031, 2032, 2033.

Control function	Definition
A (CFA)	Closed by spring force in rest position.
B (CFB)	Opened by spring force in rest position.
I (CFI)	Actuating function via reciprocal pressurisation.

2 Intended use

- The actuators and their accessories may only be used for the intended applications described in the respective operating instructions and only in connection with third-party devices and components recommended or approved by Bürkert. Any other or additional use is not considered part of the intended use.
- Observe the information in these assembly instructions as well as the conditions of use and permissible data specified in the operating instructions and on the type label of the components used.
- Proper and safe operation of the devices requires proper transport, storage and installation as well as careful operation and maintenance.

3 Basic safety instructions

These safety instructions do not take account of any

- contingencies or events which may occur during installation, operation and maintenance of the devices;
- Local safety regulations that are within the operator's scope of responsibility, including those relating to the installation personnel.

DANGER!

Danger – high pressure.

- Before loosening lines and valves, turn off the pressure and vent the lines.

Danger from electrical voltage.

- Before accessing the device or the system , switch off the power supply and secure it to prevent reactivation!
- Observe any applicable accident prevention regulations and safety regulations for electrical devices.

Risk of injury when unscrewing the transparent cap.

The transparent cap must not be under pressure when unscrewing it.

- When unscrewing the transparent cap, **only** the lower piston chamber may be pressurized with compressed air via the lower pilot air port.

WARNING!

General hazardous situations.

To prevent injuries, ensure that:

- The system cannot be activated unintentionally.
- Installation and maintenance tasks may be performed by authorised technicians only and with the appropriate tools. Only use original spare parts.
- The process must be restarted in a defined or controlled manner after an interruption in the power supply or pneumatic supply.

Please observe the following in order to protect against damage to the device:

- When screwing the electrical position feedback indicator in or out, never use the device socket as a lever, but grasp the screw-in base of the position feedback indicator.

The actuators and accessories were developed taking into account the recognized safety regulations and correspond to the state of the art. Nevertheless, dangerous situations may occur. Only operate the devices when they are in perfect condition and in compliance with the operating instructions.
Observe the work instructions, their sequence and the safety instructions and safety markings when installing the respective components.

3.1 Type-specific safety and warning notices

3.1.1 Safety instructions for actuators 175 and 225 (Ø in mm)

WARNING!

Risk of injury and functional failure due to parts jumping out or slipping.

The actuators contain preloaded springs that can jump out or slip if not opened properly.

- The actuators Ø 175 mm and 225 mm may only be opened by the manufacturer.

3.1.2 Note for actuators 50, 63, 80, 100, 125 (Ø in mm)

NOTE!

Damage to the actuators due to wrong tool.

- Only the tools specially offered by Bürkert may be used to screw on the actuator cover (see chapter "13 Installation accessories").

3.1.3 Note for actuators DN80 125 (Ø in mm)

NOTE!

For the variant of the actuator DN80 Ø 125, operation with maximum stroke limitation, min./max. Stroke limitation and handwheel not permitted.

4 General information

4.1 Contact addresses

Germany Bürkert Fluid Control Systems
Sales Center
Christian-Bürkert-Str. 13-17
D-74653 Ingelfingen
Tel. + 49 (0) 7940 - 10 91 111
Fax + 49 (0) 7940 - 10 91 448
E-mail: info@burkert.com

International

You will find the contact addresses on the Internet at:
www.burkert.com

4.2 Warranty

A precondition for the warranty is that the actuators and accessories are used as intended observing the specified application conditions.

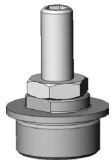
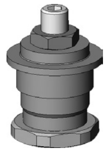
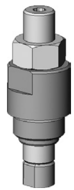
4.3 Recommended auxiliary materials

The following auxiliary materials are recommended for installing the accessories:

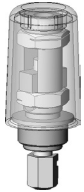
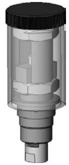
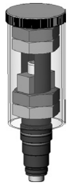
Auxiliary material	Designation	Manufacturer and Internet address
Sealants and lubricants	Multi silicone grease OKS 1110	OKS Schmierstoffe GmbH www.oks-germany.com
Liquid adhesive	LOCTITE 274	Henkel Loctite Deutschland GmbH www.loctite.de

5 Accessories overview

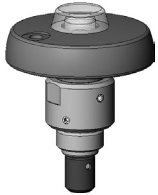
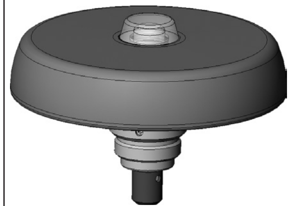
5.1 Stroke limitation, single version

	**Actuator sizes 50 to 80** (Ø in mm) Specific detail: • only for control function A
	**Actuator sizes 100, 125** (Ø in mm) Specifics: • only for control function A • can only be fitted with a special wrench for the actuator cover
	**Actuator sizes 175, 225** (Ø in mm) Specific detail: • only for control function A

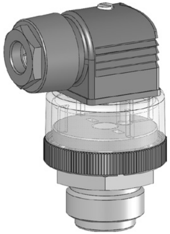
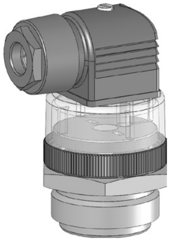
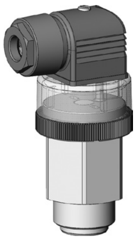
5.2 Min./max. stroke limitation

	**Actuator sizes 50 to 80** (Ø in mm)
	**Actuator sizes 100, 125** (Ø in mm) Specific detail: • Can only be installed with a special wrench for the actuator cover
	**Actuator size 175** (Ø in mm)

5.3 Handwheel

	**Actuator sizes 50 to 80** (Ø in mm) Special detail: • only for control function A
	**Actuator sizes 100, 125** (Ø in mm) Special detail: • only for control function A

5.4 Electrical position feedback indicator

	Actuator sizes 50 to 80 (Ø in mm) Type 1060
	Actuator sizes 100, 125 (Ø in mm) Type 1060
	Actuator sizes 175, 225 (Ø in mm) Type 1060

6 Pilot air ports

DANGER!

Danger – high pressure.

- Before loosening lines and valves, turn off the pressure and vent the lines.

6.1 Actuator sizes 50, 63, 80 and 100, 125 (Ø in mm)

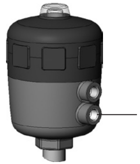


Abb. 1: Lower pilot air port, actuator sizes 50, 63, 80 and 100, 125 (Ø in mm)

6.2 Actuator sizes 175 and 225 (Ø in mm)

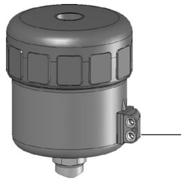


Abb. 2: Lower pilot air port, Actuator sizes 175 und 225 (Ø in mm)

7 Max. stroke limitation WITHOUT POSITION FEEDBACK

DANGER!

Danger – high pressure.

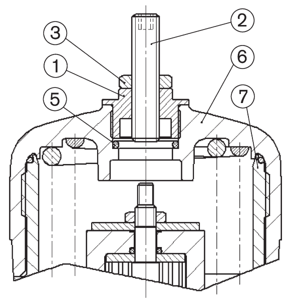
- Switch off the pressure and bleed the lines before converting the devices.

Risk of injury when unscrewing the transparent cap.

The transparent cap must not be under pressure when unscrewing it.

- When unscrewing the transparent cap, **only** the lower piston chamber may be pressurized with compressed air via the lower pilot air port.

7.1 Actuator sizes 50, 63, 80 (Ø in mm)



Required parts

1. Threaded nipple
2. Setscrew M12 × 1.5
3. Nut M12 × 1.5
4. O-ring
5. Actuator cover
6. Bush

Abb. 3: Actuator sizes 50, 63, 80 (Ø in mm) max. stroke limitation without position feedback

7.1.1 Work before installation

→ Interrupt the supply of pilot air and medium flow.

→ Drain the valve body.

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter "7" on page 10!).

→ Unscrew the position indicator with an Allen key (width across flats 5 mm).

7.1.2 Installation and commissioning

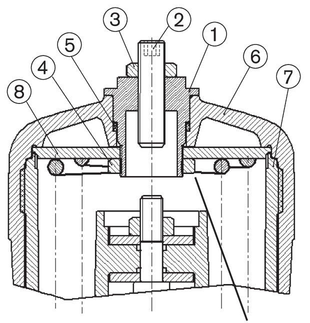
→ Screw the threaded nipple (1) into the actuator cover (6).
- Use the wrench flat on the tube (AF17).
- Max. tightening torque: 15 Nm.

→ Adjust the max. stroke by adjusting the setscrew (2).

→ Secure the setscrew (2) with the nut (3).

→ Check valve for functionality and tightness.

7.2 Actuator sizes 100, 125 (Ø in mm)



Required parts

1. Threaded nipple
2. Setscrew M12 × 1.5
3. Nut M12 × 1.5
4. Nut
5. O-ring
6. Actuator cover
7. Bush
8. Washer

Abb. 4: Actuator sizes 100, 125 (Ø in mm), max. stroke limitation without position feedback

7.2.1 Work before installation

→ Interrupt the supply of pilot air and medium flow.

→ Drain the valve body.

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter "7" on page 10!).

→ Unscrew the position indicator with an Allen key (AF8).

NOTE!

Damage caused by wrong tool.

- Only screw the actuator cover in or out with the special wrench offered in chapter "13 Installation accessories".

→ Unscrew the actuator cover (6) with a special wrench while holding on to the running surface.

7.2.2 Installation and commissioning

NOTE!

Failure or impairment of function due to damaged O-ring (5).

- Insert O-ring (5) carefully.
- Do not use any sharp objects to insert.

→ Insert the threaded nipple (1) into the actuator cover (6).

→ Insert the washer (8) into the inside of the actuator cover (6).

→ Fasten actuator cover (6) with nut (4) on threaded nipple (1).
- Use wrench flat on the tube (AF24)
- Max. tightening torque: 20 Nm

→ Secure nut (4) with adhesive (e.g. Loctite 274).

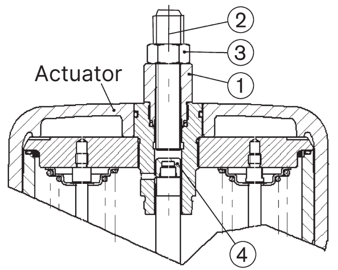
→ Mount the actuator cover (6) with a special wrench.
- Max. tightening torque:
Actuator size Ø 100 mm = 45 Nm
Actuator size Ø 125 mm = 60 Nm

→ Adjust the max. stroke by adjusting the setscrew (2).

→ Secure setscrew (2) with nut (3).

→ Check valve for functionality and tightness.

7.3 Actuator sizes 175, 225 (Ø in mm)



Required parts

1. Threaded nipple
2. Setscrew M16 × 80
3. Nut M16
4. Spindle cover cap

Abb. 5: Actuator sizes 175, 225 (Ø in mm), max. stroke limitation without position feedback

WARNING!

Risk of injury and functional failure due to parts jumping out or slipping.

The actuators contain preloaded springs that can jump out or slip if not opened properly.

- The actuators Ø 175 mm and 225 mm may only be opened by the manufacturer.

7.3.1 Work before installation

→ Interrupt the supply of the medium flow.

→ Drain the valve body.

→ Move the actuator to the upper piston position. To do this, apply compressed air to the lower piston chamber via the lower pilot air port (control functions A and I).

→ Unscrew the transparent cap from the actuator cover (observe the safety instructions in chapter “7” on page 10!).

→ Unscrew the position indicator (yellow screw cap) by hand.

→ Screw on the threaded bushing or spindle cover cap (4) instead of the position indicator on the end of the spindle (AF14).

→ Interrupt the supply of pilot air.

7.3.2 Installation and commissioning

→ Screw the threaded nipple (1) into the actuator instead of the transparent cap (AF27).

→ Screw the setscrew (2) into the threaded nipple (1).

→ Set the max. stroke by adjusting the setscrew (2) .

→ Secure the setscrew (2) with a nut (3) .

→ Check valve for functionality and tightness.

8 Option: actuator blocking CLASSIC/INOX

DANGER!

Danger – high pressure.

- Switch off the pressure and bleed the lines before converting the devices.

Risk of injury when unscrewing the transparent cap.

The transparent cap must not be under pressure when unscrewing it.

- When unscrewing the transparent cap/actuator blocking, **only** the lower piston chamber may be pressurised with compressed air via the lower pilot air port.

NOTE!

This option is only applicable to:

- Control function A

This option makes it possible to block a "normally closed" actuator (control function A) while open. In certain situations, for example when the entire valve needs to be autoclaved, no pilot air is available to the actuator. This is what the actuator blocking was developed to do. In normal operation, it replaces the transparent cap, the O-ring and the visual position indicator.

If the actuator needs to be temporarily blocked while open, the pilot pressure must be applied to open the valve. Then, the actuator blocking can be unscrewed, rotated 180° and screwed onto the spindle. If the pilot pressure is no longer applied, the valve remains open.

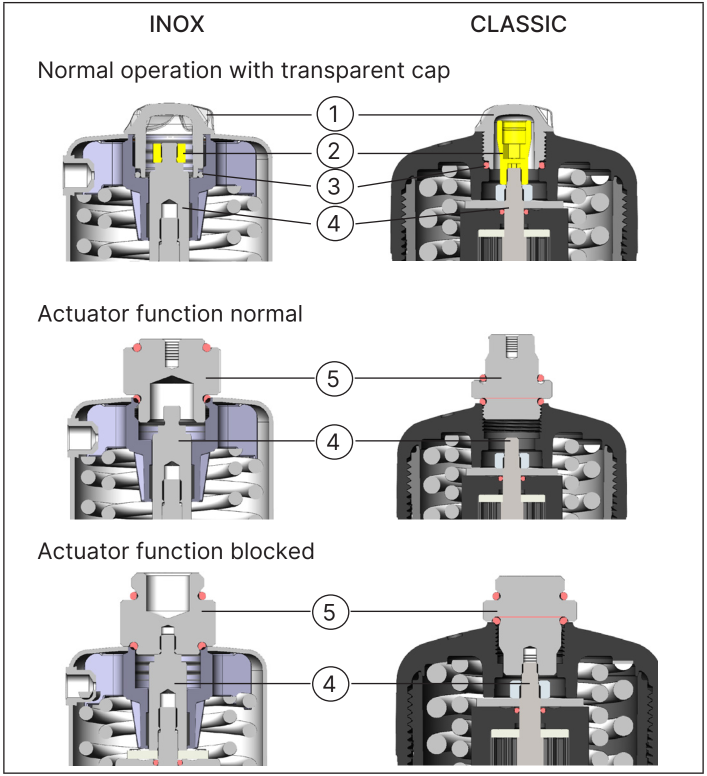


Abb. 6: Installation actuator blocking

Preparatory work

→ Interrupt the supply of the medium flow.

→ Drain the valve body.

Installation

→ Unscrew transparent cap (1) from the actuator cover (3).

→ Remove O-ring (3).

→ Apply pilot pressure to connection 1 or the lower pilot air port.

→ Unscrew position indicator (2) from spindle extension (4).

Actuator function normal:

→ Screw the external thread of the actuator blocking (5) into the actuator cover until it stops.

Actuator function blocked:

→ Screw the internal thread of the actuator blocking (5) onto the spindle extension (4) of the actuator until it stops.

→ Pilot pressure must be applied to loosen the actuator blocking.

9 Min./max. stroke limitation WITH OPTICAL POSITION INDICATOR

WARNING!

Danger – high pressure.

- Switch off the pressure and bleed the lines before converting the devices.

Risk of injury when unscrewing the transparent cap.

The transparent cap must not be under pressure when unscrewing it.

- When unscrewing the transparent cap, **only** the lower piston chamber may be pressurized with compressed air via the lower pilot air port.

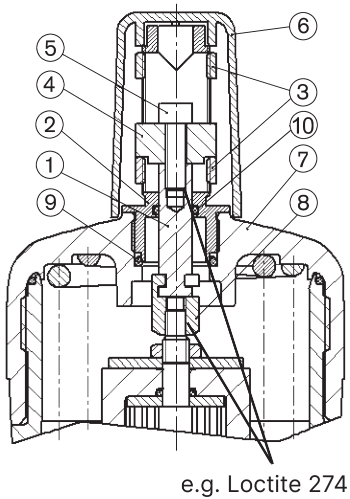
CAUTION!

Risk of crushing by mechanically moving parts.

For setting the min./max. stroke limitation the valve is switched. This causes the spindle to move.

- Do not touch any exposed parts of the min./max. stroke limiter while the valve is switching.

9.1 Actuator sizes 50, 63, 80 (Ø in mm)



Required parts

1. Spindle
2. Guide spindle
3. Nut, slotted
4. Beam (actuator)
5. Cheese head screw
6. Hood
7. Housing
8. Coupling
9. O-ring
10. O-ring

Abb. 7: Actuator sizes 50, 63, 80 (Ø in mm) min./max. stroke limitation with optical position indicator

9.1.1 Installation and commissioning

→ Screw the coupling (8) onto the valve spindle and secure with adhesive (e.g. Loctite 274).

→ Hook the spindle (1) in the coupling (8).

→ Grease the spindle (1).

→ Grease O-ring (10) and insert in guide spindle (2).

→ Screw the guide spindle (2) into the actuator cover.
- Max. tightening torque: 15 Nm

→ Screw the actuator cover onto the valve.
- Max. tightening torque:
  Actuator size Ø 50 mm = 15 Nm
  Actuator size Ø 63 mm = 20 Nm
  Actuator size Ø 80 mm = 35 Nm

→ Screw the bottom nut (3) onto the guide spindle (2).

→ Place bar (4) on spindle (1) , fasten with cheese head screw (5) (Allen key AF5 or AF8) and secure with screw lock (e.g. Loctite 274).

→ Screw the top nut (3) onto the guide spindle (2).

→ Set the maximum and minimum stroke using the top and bottom nuts (3).

→ Check valve for functionality and tightness.

→ Screw on hood (6) by hand.

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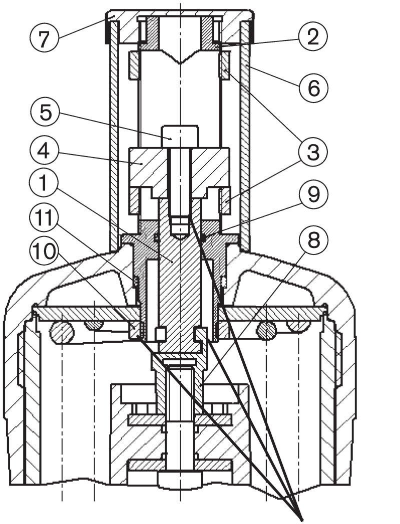
9.2 Actuator sizes 100, 125 (Ø in mm)



Required parts

1. Spindle
2. Guide spindle
3. Nut, slotted
4. Beam (actuator)
5. Cheese head screw
6. Tube
7. Cover
8. Coupling
9. O-ring
10. Nut
11. O-ring

Abb. 8: Actuator sizes 100, 125 (Ø in mm), min./max. stroke limitation with optical position indicator

9.2.1 Work before installation

→ Interrupt the supply of pilot air and medium flow.

→ Drain the valve body.

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter “9” on page 14!).

→ Unscrew the position indicator with an Allen key (AF5 or AF8).

NOTE!

Damage caused by wrong tool.

- Only screw the actuator cover in or out with the special wrench offered in chapter “13 Installation accessories”.

→ Unscrew the actuator cover with a special wrench while holding the bush.

9.2.2 Installation and commissioning

→ Screw the coupling (8) onto the valve spindle and secure with screw lock (e.g. Loctite 274).

→ Hook the spindle (1) in the coupling (8).

→ Grease the spindle (1).

→ Grease O-ring (9) and insert in guide spindle (2).

→ Insert the guide spindle (2) into the actuator cover.

→ Place the washer in the actuator cover, fasten it to the guide spindle (2) with the nut (10) and secure with screw lock (e.g. Loctite 274).

→ To do this, use the wrench flat on the guide spindle (2) (AF24).
  - Max. tightening torque: 20 Nm

→ Screw actuator cover onto valve
  - Max. tightening torque:
    Actuator size Ø 100 mm = 45 Nm
    Actuator size Ø 125 mm = 60 Nm

→ Screw the bottom nut (3) onto the guide spindle (2).

→ Place the bar (4) on the spindle (1), fasten with a cheese head screw (5) and secure with a screw lock (e.g. Loctite 274) (Allen key AF5 or AF8).

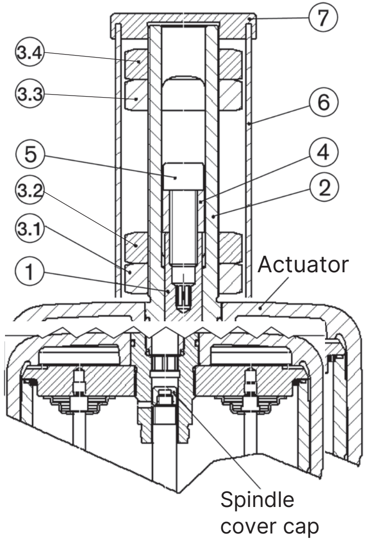
→ Screw the top nut (3) onto the guide spindle (2).

→ Set the maximum and minimum stroke using the top and bottom nuts (3).

→ Check valve for functionality and tightness.

→ Screw on tube (6) with cover (7) by hand.

9.3 Actuator size 175 (Ø in mm)



Required parts

1	Spindle extension
2	Guide spindle
3.1 ... 3.4	Nut M40 × 2
4	Bar
5	Cheese head screw M16 × 45
6	Tube
7	Cover
8	Stop (only for Type 2012 CFA)

Abb. 9: Actuator size 175 (Ø in mm)
min./max. stroke limitation with optical position indicator

WARNING!

Risk of injury and functional failure due to parts jumping out or slipping.

The actuators contain preloaded springs that can jump out or slip if not opened properly.

- The Ø 175 mm actuator may only be opened by the manufacturer.

9.3.1 Work before setting the maximum and minimum stroke

→ Interrupt the supply of the medium flow.

CFA and CFI

9.3.2 Setting the minimum stroke

→ Unscrew cover (7).

→ Remove tube (6).

→ Apply control air to the actuator to open the valve.

→ Loosen the locknut (3.1) for minimum stroke.

→ Screw the adjusting nut (3.2) for the minimum stroke into the required position.

→ Check the stroke limitation setting by switching the valve.

→ Secure with locknut (3.1) for minimum stroke.

9.3.3 Setting the maximum stroke

→ Interrupt the pilot air supply to close the valve.

→ Loosen locknut (3.4) for maximum stroke.

→ Screw the adjusting nut (3.3) into the desired position for the maximum stroke.

→ Check the stroke limitation setting by switching the valve.

→ Secure with locknut (3.4) for maximum stroke.

→ Attach tube (6) and screw on cover (7).

CFB

9.3.4 Setting the minimum stroke

→ Unscrew cover (7).

→ Remove tube (6).

→ Loosen the locknut (3.1) for minimum stroke.

→ Screw the adjusting nut (3.2) for the minimum stroke into the required position.

→ Check the stroke limitation setting by switching the valve.

→ Secure with locknut (3.1) for maximum stroke.

9.3.5 Setting the maximum stroke

→ Apply pilot air to the actuator to close the valve.

→ Loosen locknut (3.4) for maximum stroke.

→ Screw the adjusting nut (3.3) for the maximum stroke into the desired position.

→ Check the stroke limitation setting by switching the valve.

→ Secure with locknut (3.4) for maximum lift.

→ Interrupt the pilot air supply to open the valve.

→ Attach tube (6) and screw on cover (7).

10 Handwheel

DANGER!

Danger – high pressure.

- Switch off the pressure and bleed the lines before converting the devices.

Risk of injury when unscrewing the transparent cap.

The transparent cap must not be under pressure when unscrewing it.

- When unscrewing the transparent cap, **only** the lower piston chamber may be pressurized with compressed air via the lower pilot air port.

10.1 Actuator sizes 50 to 125 (Ø in mm)

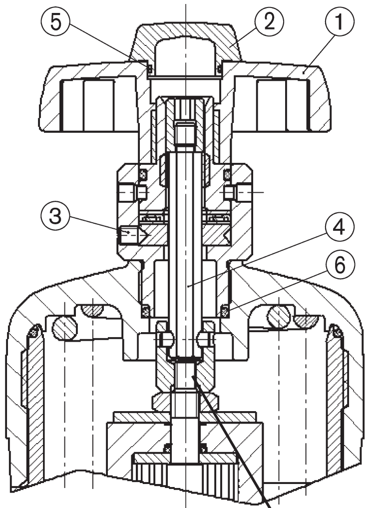
10.1.1 Work before installation

→ Interrupt the supply of pilot air and medium flow.

→ Drain the valve body.

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter "10" on page 19!).

→ Unscrew the position indicator with an Allen key (AF5 or 8).



Required parts

1. Handwheel
2. Transparent cap
3. Setscrew
   3 x without locking varnish
   2 x with locking varnish
4. Pull bar
5. O-ring
6. O-ring

Abb. 10: Actuator sizes 50 to 125 (Ø in mm) with handwheel

10.1.2 Installation and commissioning

→ Carefully pry off the transparent cap (2) from the handwheel (1) using a suitable tool (transparent cap is only plugged on, no thread).

→ Check:
Setscrews (3) without locking varnish (3 pieces) are loose
Pull rod (4) is at the bottom stop
(adjustable with Allen key AF5 or AF8).

→ Screw the handwheel onto the actuator cover, using the wrench flat on the handwheel and holding on to the valve.
Max. tightening torque:
Actuator sizes Ø 50, 63, 80 mm = 15 Nm
Actuator sizes Ø 100, 125 mm = 20 Nm

→ Screw the pull rod (4) onto the actuator spindle using an Allen key AF5 or AF8 and secure with screw lock (e.g. Loctite 274).

NOTE!

Failure or impairment of function due to loose screws.

- The screws secured with locking varnish must not be loosened, otherwise proper functioning can no longer be guaranteed.

→ Tighten the setscrews (3) without locking varnish (3 pieces, AF2.5).

→ Check valve for functionality and tightness.

→ Turn handwheel (1) to the left to open.

NOTE!

Failure or impairment of function due to damaged O-ring ⑤.

- Carefully insert O-ring ⑤.
- Do not use any sharp objects to insert.

→ Plug on the transparent cap (2) with O-ring (5).

11 Electrical position feedback indicator WITH OPTICAL POSITION INDICATOR

DANGER!

Danger – high pressure.

Switch off the pressure and bleed the lines before converting the devices.

Risk of injury when unscrewing the transparent cap.

The transparent cap must not be under pressure when unscrewing it.

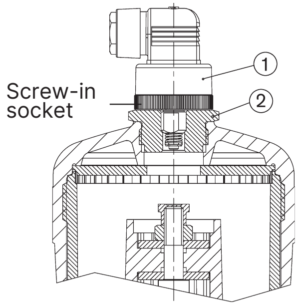
- When unscrewing the transparent cap, **only** the lower piston chamber may be pressurized with compressed air via the lower pilot air port.

NOTE!

Damage to the micro switch.

- When screwing the electrical position feedback indicator in or out, never use the device socket as a lever, but grasp the screw-in base of the position feedback indicator.

11.1 Actuator sizes 50, 63, 80 (Ø in mm)



Required parts

① Electrical position feedback indicator with device socket

② Adapter

Abb. 11: Actuator sizes 50, 63, 80 (Ø in mm) with electrical position feedback indicator

11.1.1 Work before installation

→ Interrupt the supply of pilot air and medium flow.

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter “11” on page 21!).

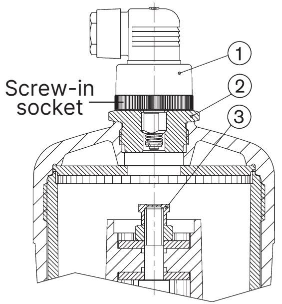
→ Unscrew the position indicator with an Allen key (AF5).

11.1.2 Installation and commissioning

→ Screw the adapter (2) onto the actuator instead of the transparent cap (see “Abb. 11”).

→ Screw the electrical position feedback indicator (1) into the adapter (2), observing the note in chapter “11”.

11.2 Actuator sizes 100, 125 (Ø in mm)



Required parts

1. Electrical position feedback indicator with device socket
2. Adapter
3. Threaded bushing (only for type 2030, 2031)

Abb. 12: Actuator sizes 100, 125 (Ø in mm) with electrical position feedback indicator

11.2.1 Work before installation

→ Interrupt the supply of the medium flow.

→ Drain the valve body.

→ Move the actuator to the upper piston position. To do this, apply compressed air to the lower piston chamber via the lower pilot air port (control functions A and I).

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter "11" on page 21).

→ Unscrew the position indicator with an Allen key (AF8).

→ **Type 2030, 2031:** Screw the threaded bushing (3) onto the actuator spindle (AF14).

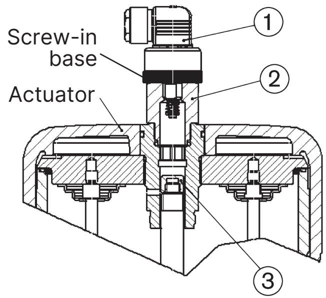
→ Then interrupt the supply of pilot air.

11.2.2 Installation and commissioning

→ Screw the adapter (2) onto the actuator instead of the transparent cap (see "Abb. 12").

→ Screw the electrical position feedback indicator (1) into the adapter (2), observing the note in chapter "11".

11.3 Actuator sizes 175, 225 (Ø in mm)



Required parts

1. Electrical position feedback indicator with device socket
2. Adapter
3. Spindle cover cap

Abb. 13: Actuator sizes 175, 225 (Ø in mm) with electrical position feedback indicator

WARNING!

Risk of injury and functional failure due to parts jumping out or slipping.

The actuators contain preloaded springs that can jump out or slip if not opened properly.

- The actuators Ø 175 mm and 225 mm may only be opened by the manufacturer.

11.3.1 Work before installation

→ Interrupt the supply of the medium flow.

→ Drain the valve body.

→ Move the actuator to the upper piston position. To do this, apply compressed air to the lower piston chamber via the lower pilot air port (control functions A and I).

→ Unscrew the transparent cap from the actuator cover (6) (observe the safety instructions in chapter "11" on page 21!).

→ Unscrew the position indicator (yellow screw cap) by hand.

→ Screw the spindle cap (3) onto the end of the spindle instead of the
position indicator (AF14).

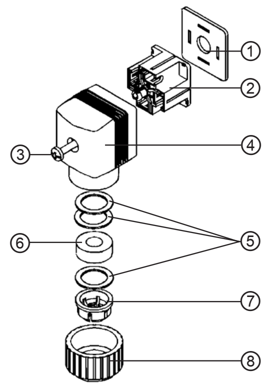
→ Then interrupt the supply of pilot air.

11.3.2 Installation and commissioning

→ Screw the adapter (2) onto the actuator instead of the transparent cap (see "Abb. 13").

→ Screw the electrical position feedback indicator (1) into the adapter (2), observing the note in chapter "11".

12 Electrical connection



Item	Parts designation
1	Flange seal
2	Contact insert
3	Cheese head screw
4	Cap
5	Thrust collar
6	Sealing ring
7	Collet chuck
8	Union nut

Abb. 14: Connection of the device socket

→ Loosen the cheese head screw (3) on the device socket and remove it.

NOTE!

Functional failure due to bent connector lugs that prevent the contact insert from being reinstalled.

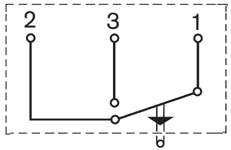
▸ Carefully remove the contact insert and ensure that the connector lugs are not bent.

→ Loosen the hollow screw in the contact insert (2), remove the contact insert from the cap.

→ Guide the cable through the union nut (8).

→ Make the connection according to the circuit (see “Abb. 15: Electrical circuit”).

Max. connected loads:
→ 5 A at 250 VAC
0.25 A at 250 VDC.



Assignment: 1. Input
2. Normally closed contact
3. Normally open contact

Abb. 15: Electrical circuit

→ Insert the contact insert (2) into the cap (4) and screw on with a hollow screw.

→ Screw on the device socket with the cheese head screw (3) (tightening torque 0.5 Nm or hand-tight), making sure that the flat seal (6) is seated securely.

→ Tighten the union nut by hand.

→ Check valve for functionality and tightness.

13 Installation accessories

Product	Actuator size [ø in mm]	Order no.
Special wrench	50	639 175
	63	639 170
	80	639 171
	100	639 172
	125	639 173

14 Ordering data accessories

Product	Actuator size [ø in mm]	Order no.
Max. stroke limitation without position feedback	50, 63, 80	637 866
	100	637 867
	125	637 868
	175, 225	655 600
Min/max stroke limitation with optical position indicator	50, 63, 80	636 820
	100	636 821
	125	640 703
	175 only type 2030, 2031	655 631
	175 only type 2012	659 038
Handwheel	50, 63, 80	636 822
	100, 125	636 823
Electrical position feedback indicator Type 1060	50, 63, 80	701 515
	100, 125	701 516
	175, 225	655 696

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