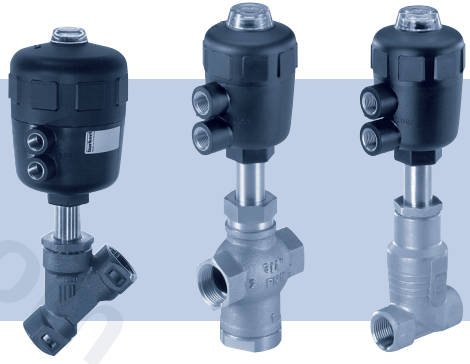
bürkert
FLUID CONTROL SYSTEMS

Type 2000, 2002, 2012

Conversion of control function
Umbau der Steuerfunktion
Transformation de la fonction de commande



Replacement Instructions

Austauschanleitung
Instructions de remplacement

MAN 1000637341 EN Version: -Status: RL (released | freigegeben) printed: 09.11.2026

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English

REPLACEMENT INSTRUCTIONS

The replacement instructions describe the procedure for converting the control function of process valves of Type 2000 (angle seat valve) and Types 2002 and 2012 (globe valves).

These instructions contain important safety information.

Failure to observe these instructions may result in hazardous situations.

- The replacement instructions must be read and understood before the conversion.

SYMBOLS

→ designates a procedure which you must carry out.

Warning of serious or fatal injuries:

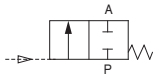
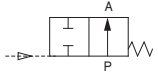
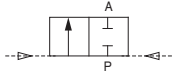
DANGER!
In case of imminent danger.

WARNING!
In case of potential danger.

Warning of minor or moderately severe injuries:

CAUTION!

DESCRIPTION OF THE FUNCTIONS

CFA		Closed in rest position by spring force
CFB		Opened in rest position by spring force
CFI		Actuating function via reciprocal pressurization

Flow above the seat

The valve is closed by spring force (CFA) with the medium flow. Medium pressure above the swivel plate supports the closing process and contributes to sealing the valve seat. The valve is opened by the control pressure.

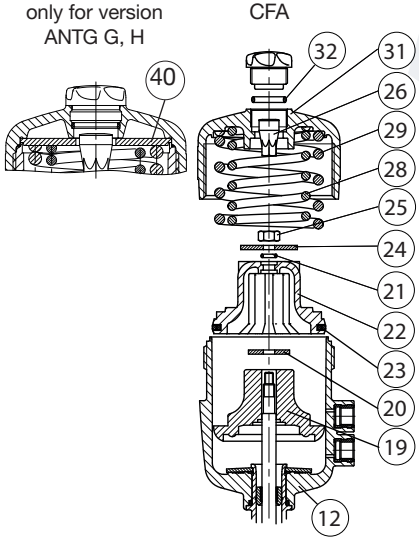
Flow below the seat

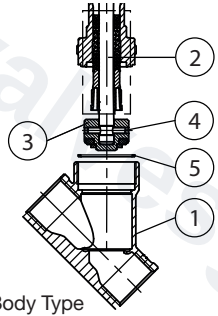
Depending on the model, the valve is closed against the medium flow by spring force (CFA) or by control pressure (CFB). Medium pressure under the swivel plate contributes to opening the valve.

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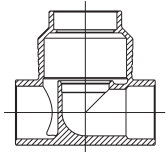
EXPLODED-VIEW DRAWING

Actuators control function A (closed in rest position by spring force)



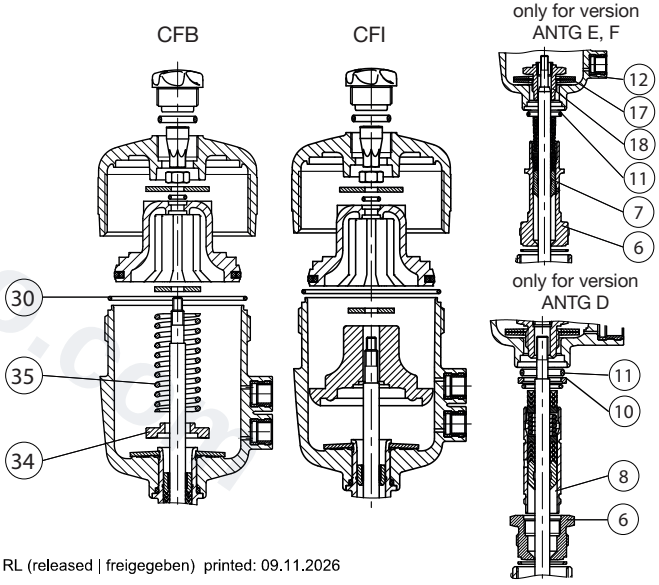


Body Type
2000 and 2002



Body Type
2012

Actuators control function B (opened in rest position by spring force) and I (dual acting)



CONVERSION FROM CONTROL FUNCTION A (CFA) TO CONTROL FUNCTION B (CFB)

DANGER!

Danger – high pressure.

- Turn off the pressure and vent the lines before loosening lines or valves.

Risk of injury from improper maintenance.

- Maintenance may be performed by authorized technicians only!
- To screw on or unscrew valve body or actuator, use an open-end wrench, never a pipe wrench, and observe tightening torques.

Required parts:

Item	Description
35	1 Pressure spring
30	1 O-ring
5	1 Graphite seal

→ Mount valve ① on the body.

CAUTION!

Danger through taut springs.

- Carefully open piston actuator.

→ Release cover ㉛ with special wrench until the springs are completely relaxed, holding up the actuator body ⑫ against the hexagon.

For information about the special wrench, see Chapter "Installation tools".

→ **For actuator size G (100 mm) and H (125 mm):** Remove washer ㊵.

→ Remove pressure springs ㉘ ㉙.

→ Remove position indicator ㉖ with Allen key.

→ Screw actuator on the nipple ⑥ out of the valve body ①.

→ Carefully screw in actuator on the swivel plate ③ (only put pressure on the upper section of the swivel plate).

→ Release nuts ㉕.

→ Remove pistons ㉒ with supporting washer ㉔.

→ Remove filler piece ⑲ with intermediate washer ⑳ and O-ring ㉑.

→ **For actuator size G (100 mm) or H (125 mm) and identification "R" on the type label:** Insert spring seat ㉞.

→ Insert pressure springs ㉟.

→ Place intermediate washer ⑳ and lightly lubricated O-ring ㉑ on spindle.

→ Insert pistons ㉒ and supporting washer ㉔.

→ Wet spindle thread ② with special adhesive LOCTITE 274 and screw on nut ㉕.

→ Mount position indicator ㉖.

→ Insert new O-ring ㉚ into the groove of the actuator body.

! Do not damage sealing edges when replacing the seal!

→ Replace graphite seal ⑤.

→ **Only for VA body:** Lubricate nipple thread ⑥ with Klüber paste UH1 96-402.

→ Clamp body ①.

NOTE!

Damage to the seat contour.

- During installation, take care that there is no damage to the seat contour.
- Observe tightening torques according to "Tab. 1".

→ Screw in nipple ⑥ with actuator in valve body ①.

→ **For actuator size G (100 mm) and H (125 mm):** Insert washer ㊵.

→ Mount cover ㉛ and screw tightly with special wrench.

→ Check the valve for function and leaks.

Tightening torques

Material of nipple thread	DN	Tightening torques
Brass or stainless steel	15	45
	20	50
	25	60
	32	65
	40	65
	50	70
	65	70

Tab. 1: Valve body tightening torques

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CONVERSION FROM CONTROL FUNCTION A (CFA) TO CONTROL FUNCTION I (CFI)

DANGER!

Danger – high pressure.

- Turn off the pressure and vent the lines before loosening lines or valves.

Risk of injury from improper maintenance.

- Maintenance may be performed by authorized technicians only.
- To screw on or unscrew valve body or actuator, use an open-end wrench, never a pipe wrench, and observe tightening torques.

Required parts:

Item	Description
30	1 O-ring

→ Mount valve ① on the body.

CAUTION!

Danger through taut springs.

- Carefully open piston actuator.

→ Release cover ㉛ with special wrench until the springs are completely relaxed, holding up the actuator body ⑫ against the hexagon.

For information about the special wrench, see Chapter "Installation tools".

→ **For actuator size G (100 mm) and H (125 mm):** Remove washer ㊵.

→ Remove pressure springs ㉘ ㉙.

→ Insert O-ring ㉚ into the groove of the actuator body.

→ **For actuator G (100 mm) and H (125 mm):** Insert washer ㊵.

→ Mount cover ㉛ and screw tightly with special wrench.

→ Check the valve for function and leaks.

For control function I (CFI) connect both control air connections to the control lines.

CONVERSION FROM FLOW ABOVE THE SEAT TO FLOW BELOW THE SEAT

DANGER!

Danger – high pressure.

- Turn off the pressure and vent the lines before loosening lines or valves.

Risk of injury from improper maintenance.

- Maintenance may be performed by authorized technicians only!
- To screw on or unscrew valve body or actuator, use an open-end wrench, never a pipe wrench, and observe tightening torques.

Required parts:

Item	Description
28, 29	1 or 2 Pressure springs

→ Mount valve ① on the body.

CAUTION!

Danger through taut springs.

- Carefully open piston actuator.

→ Release cover ㉛ with special wrench until the springs are completely relaxed, holding up the actuator body ⑫ against the hexagon.

For information about the special wrench, see Chapter "Installation tools".

→ **For actuator size G (100 mm) and H (125 mm):** Remove washer ㊵.

→ Remove and / or insert pressure springs ㉘ ㉙ depending on actuator.

→ **For actuator size C (40 mm), D (50 mm), E (63 mm) and F (80 mm):** Remove pressure springs and insert new, stronger springs.

→ **For actuator size G (100 mm) and H (125 mm):** Install new outer spring ㉙ in addition to the existing inner spring ㉘.

→ **For actuator size G (100 mm) and H (125 mm):** Insert washer ㊵.

→ Mount cover ㉛ and screw tightly with special wrench.

→ Check the valve for function and leaks.

Note changed direction of flow and changed pressure range.

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CONVERSION FROM FLOW BELOW THE SEAT TO FLOW ABOVE THE SEAT

DANGER!

Danger – high pressure.

- Turn off the pressure and vent the lines before loosening lines or valves.

Risk of injury from improper maintenance.

- Maintenance may be performed by authorized technicians only!
- To screw on or unscrew valve body or actuator, use an open-end wrench, never a pipe wrench, and observe tightening torques.

Required parts:

Item	Description
28, 29	2 Pressure springs for actuator C (40 mm), D (50 mm), E (63 mm), F (80 mm)

→ Mount valve ① on the body.

CAUTION!

Danger through taut springs.

- Carefully open piston actuator.

→ Release cover ㉛ with special wrench until the springs are completely relaxed, holding up the actuator body ⑫ against the hexagon.

For information about the special wrench, see Chapter "Installation tools".

→ **For actuator size G (100 mm) and H (125 mm):** Remove washer ㊵.

→ Remove and / or insert pressure springs ㉘ ㉙ depending on actuator.

→ **For actuator size C (40 mm), D (50 mm), E (63 mm) and F (80 mm):** Remove pressure springs and insert new, weaker springs.

→ **For actuator size G (100 mm) and H (125 mm):** Remove outer spring only ㉙, inner spring ㉘ remains in the actuator.

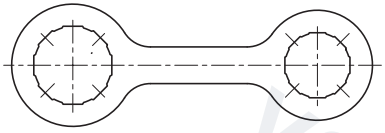
→ **For actuator size G (100 mm) and H (125 mm):** Insert washer ㊵.

→ Mount cover ㉛ and screw tightly with special wrench.

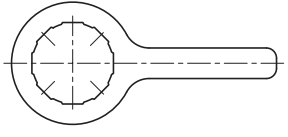
→ Check the valve for function and leaks.

Note changed direction of flow and changed pressure range!

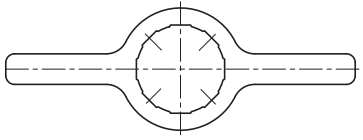
INSTALLATION TOOLS



Installation wrench for actuator C (40 mm) and D (50 mm)		
Actuator	ø (mm)	Order no.
C	40	639 175
D	50	639 175



Installation wrench for actuator E (63 mm)		
Actuator	ø (mm)	Order no.
E	63	639 170



Installation wrench for actuator F (80 mm), G (100 mm) and H (125 mm)		
Actuator	ø (mm)	Order no.
F	80	639 171
G	100	639 172
H	125	639 173

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