**Description:**

- 2-way flanged ball valve
- 3-pieces body construction
- full passageway
- flange acc. to EN1092 - PN40
- face-to-face length acc. to EN 558-1
- SFA20: stainless steel hand lever
- SFA21: automatable with top flange acc. to ISO 5211
- blow out safe, spindle mounted from inside
- any installation position

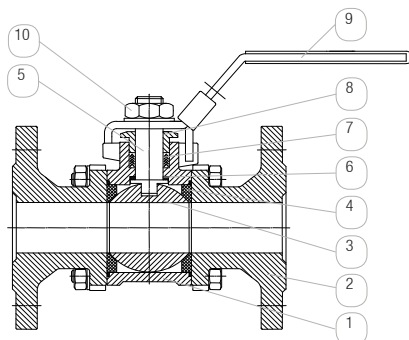
Range of application:

- standardized length of body permits easy replacement in existing applications
- Dismounting the center piece is possible without removing the valve from the pipeline.
- working pressure PN40 (see pressure-temperature-diagram)
- temperature range: -10°C up to +200°C (see pressure temperature diagram)

Comments:

The ball valves SFA21 can be directly automated (actuator crosswise to the piping).

Better protection against unintended disengagement of the spindle and the sealing by a blow out protection. No accidental damage possible from outside.



| pos. | part | standard material | | optional material | |
|------|---------------------|-------------------|---|-------------------|--|
| 1 | body | 1.4408 | 0 | - | |
| 2 | connector | 1.4408 | | - | |
| 3 | ball | 1.4401 | 0 | - | |
| 4 | seat sealing | PTFE | T | - | |
| 5 | spindle | 1.4401 | | - | |
| 6 | thrust ring | PTFE | T | - | |
| 7 | o-ring | FKM | | - | |
| 8 | packing for spindle | PTFE | | - | |
| 9 | gland | 1.4301 | | - | |
| 10 | nut | 1.4301 | | - | |
| | lock device | 1.4301 | | - | |

options:

- SV: spindle extension
- DB: through hole
- ZG: certificate
- OF: free of oil and grease

For pneumatic actuated valves only:

- SD: sound absorber
- AD: exhaust air regulator
- PV: pilot valve

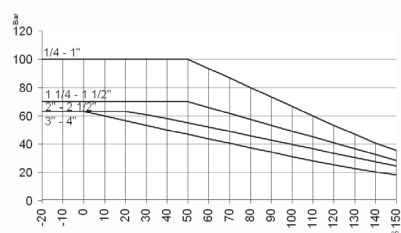
For details see data sheet "GMV3197", "GMV3163" (3/2 way) and "MVA01" (5/2 way). Other types on request.

- PS: positioning indicator
- For details see data sheet "MCM2" (mechanical), "MCN2" (inductive, with ATEX 94/9/EC) and "MCS2" (inductive). Other types on request.

For electric actuated valves only:

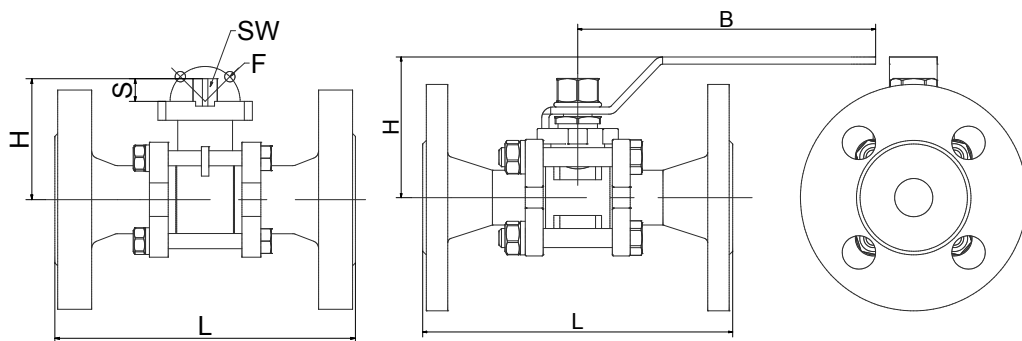
- AP: accumulator security pack
- PT: potentiometer
- PO: positioning system

For details about the order code see "Order information". An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

**Pressure temperature diagram**

The pressure temperature diagram shows the max. permissible working pressure in relation of the media temperature. If your application has strong temperature variations, you may need additional options like a relief well, to meet the figures.

Please tell us your temperature variations with your order.

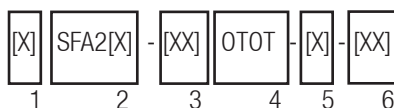


| match code | size | nominal pressure | nominal size [mm] | L [mm] | H [mm] | B [mm] | F | SW* [mm] | S [mm] | CV** [m ³ /h] | breakaway torque*** [Nm] | weight [kg] |
|----------------|-------|------------------|-------------------|--------|--------|--------|-----------|----------|--------|--------------------------|--------------------------|-------------|
| SFA20-52-30TOT | DN15 | PN40 | 16 | 130 | 84 | 146.5 | - | - | - | 19.4 | - | 2.5 |
| SFA20-53-30TOT | DN20 | PN40 | 20 | 150 | 87 | 146.5 | - | - | - | 45.6 | - | 3.5 |
| SFA20-54-30TOT | DN25 | PN40 | 25 | 160 | 93 | 153.5 | - | - | - | 71.5 | - | 4.7 |
| SFA20-55-30TOT | DN32 | PN40 | 32 | 180 | 99 | 153.5 | - | - | - | 105 | - | 5.9 |
| SFA20-56-30TOT | DN40 | PN40 | 38.1 | 200 | 114 | 217.5 | - | - | - | 170 | - | 7.8 |
| SFA20-57-30TOT | DN50 | PN40 | 50.8 | 230 | 122 | 217.5 | - | - | - | 275 | - | 11.3 |
| SFA20-58-30TOT | DN65 | PN40 | 65 | 290 | 150 | 251.5 | - | - | - | 507 | - | 16.9 |
| SFA20-59-30TOT | DN80 | PN40 | 80 | 310 | 161 | 251.5 | - | - | - | 905 | - | 23.9 |
| SFA20-60-30TOT | DN100 | PN40 | 100 | 350 | 180 | 291.5 | - | - | - | 1414 | - | 34.9 |
| SFA21-52-30TOT | DN15 | PN40 | 16 | 130 | 40 | - | F03 / F04 | 9 | 7 | 19.4 | 10 | 2.2 |
| SFA21-53-30TOT | DN20 | PN40 | 20 | 150 | 44 | - | F03 / F04 | 9 | 9 | 45.6 | 14 | 3.5 |
| SFA21-54-30TOT | DN25 | PN40 | 25 | 160 | 52 | - | F04 / F05 | 11 | 12 | 71.5 | 17 | 3.8 |
| SFA21-55-30TOT | DN32 | PN40 | 32 | 180 | 58 | - | F04 / F05 | 11 | 12 | 105 | 24 | 6.9 |
| SFA21-56-30TOT | DN40 | PN40 | 40 | 200 | 68 | - | F05 / F07 | 14 | 16 | 170 | 29 | 7.8 |
| SFA21-57-30TOT | DN50 | PN40 | 50 | 230 | 77 | - | F05 / F07 | 14 | 16 | 275 | 44 | 11.3 |
| SFA21-58-30TOT | DN65 | PN40 | 65 | 290 | 98 | - | F07 / F10 | 17 | 19 | 507 | 78 | 16.9 |
| SFA21-59-30TOT | DN80 | PN40 | 80 | 310 | 110 | - | F07 / F10 | 17 | 19 | 905 | 112 | 23.9 |
| SFA21-60-30TOT | DN100 | PN40 | 100 | 350 | 128 | - | F10 | 22 | 24 | 1414 | 140 | 35.8 |

* Spindle as square (standard).

**CV value: The nominal flow rate CVs acc. to VDI/VDE 2173 shows the water quantity in cubic meter per hour with the valve fully opened, $\Delta p=1$ and the water temperature between 5°C and 30°C.

***Breakaway torque: all data is determined with water at max Δp and normal ambient temperature. Multiplier for frictional media is 1.3. If your configuration has special sealing material or your application has critical media consultation is obligatory.



Order information:

1: automation:

- no specification: manually operated (SFA20) free spindle (SFA21)
- D: pneumatic double acting
- S: pneumatic single acting
- E: electric actuated

2: type: SFA20 / SFA21

3: connection size: 52-60 (see table)

4: materials:

- 1. digit: body material (stainless steel)
- 2. digit: sealing for spindle (PTFE)
- 3. digit: ball material (stainless steel)
- 4. digit: seat sealing (PTFE)

5: actuator:

- no specification: hand lever stainless steel (SFA20) free spindle (SFA21)
- automated: see column "actuator" (only SFA21)

6: options (see "options")

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!

**DSFA21 / SSFA21**

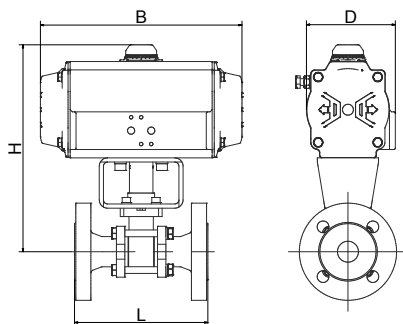
High quality pneumatic actuator made of alloy with air connection according to NAMUR and positioning indicator. The actuator works with the rack/bevel method. For further details see the technical data sheet "DR/SC".

Types double acting (the actuator opens and closes with compressed air) and single acting (the actuator opens with compressed air and closes with spring pressure).

The actuators are configured for use with fluid, gas and antifriction medium. **For critical media it is strictly recommended to inform us!**

Description:

- working pressure: 0 - 16 bar
- medium temperature: -20°C up to +100°C (at max. ambient temperature 40°C)
- pilot pressure: 6 - 8 bar

**Attention!**

To avoid corrosion inside the spring chamber for single acting actuators caused by aggressive ambient air we recommend pilot valves with integrated air recirculation.

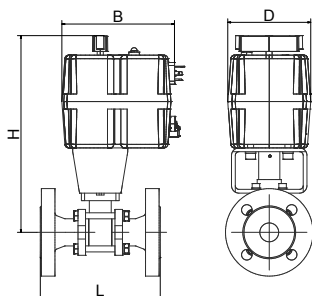
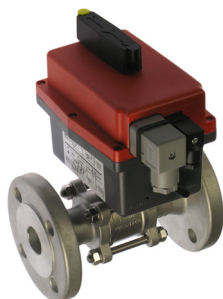
| match code | double acting: DSFA21 | | | | | single acting: SSFA21 | | | | |
|-------------------|-----------------------|--------|--------|--------|-------------|-----------------------|--------|--------|--------|-------------|
| | actuator | H [mm] | B [mm] | D [mm] | weight [kg] | actuator | H [mm] | B [mm] | D [mm] | weight [kg] |
| xSFA21-52-30T0T-x | DR010 | 126 | 118 | 62 | 2.95 | SC030-G | 145 | 153.5 | 84.5 | 4 |
| xSFA21-53-30T0T-x | DR015 | 133 | 136 | 72 | 4.5 | SC030-H | 149 | 153.5 | 84.5 | 5.2 |
| xSFA21-54-30T0T-x | DR015 | 141 | 136 | 72 | 4.8 | SC030-J | 157 | 153.5 | 84.5 | 5.5 |
| xSFA21-55-30T0T-x | DR030 | 163 | 153.5 | 84.5 | 8.5 | SC060-H | 180 | 203.5 | 93 | 10 |
| xSFA21-56-30T0T-x | DR030 | 173 | 153.5 | 84.5 | 9.4 | SC060-J | 190 | 203.5 | 93 | 10.9 |
| xSFA21-57-30T0T-x | DR060 | 199 | 203.5 | 93 | 14 | SC100-I | 212 | 241 | 106 | 15.6 |
| xSFA21-58-30T0T-x | DR100 | 233 | 241 | 106 | 20.6 | SC150-K | 245 | 259 | 118 | 23 |
| xSFA21-59-30T0T-x | DR100 | 245 | 241 | 106 | 27.6 | SC220-K | 285 | 304 | 136 | 33.2 |
| xSFA21-60-30T0T-x | DR150 | 275 | 259 | 118 | 41 | SC300-K | 301 | 333 | 146.5 | 47.8 |

ESFA21

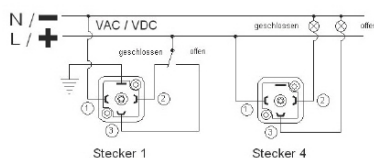
High-quality electric actuator in compact design with a body made of high-strength plastics. It has a high-performance motor and a gear drive made of metal. A central control room heater and an electronic torque limiter are equipped as standard. For further details see the technical data sheet "J".

Description:

- working pressure: 0 - 16 bar
- medium temperature: -20°C up to +70°C (at max. ambient temperature of 40°C)



| match code | actuator | H [mm] | B [mm] | D [mm] | weight [kg] |
|-------------------|----------|--------|--------|--------|-------------|
| ESFA21-52-30T0T-x | J210 | 166.5 | 169 | 104 | 3.2 |
| ESFA21-53-30T0T-x | J320 | 243 | 177 | 110 | 5.15 |
| ESFA21-54-30T0T-x | J320 | 251 | 177 | 110 | 5.2 |
| ESFA21-55-30T0T-x | J335 | 229 | 177 | 110 | 8.6 |
| ESFA21-56-30T0T-x | J335 | 239 | 177 | 110 | 9.5 |
| ESFA21-57-30T0T-x | J355 | 273 | 177 | 110 | 13.6 |
| ESFA21-58-30T0T-x | J385 | 294 | 177 | 110 | 19.7 |
| ESFA21-59-30T0T-x | J2140 | 374 | 235 | 214 | 29.1 |
| ESFA21-60-30T0T-x | J2140 | 392 | 235 | 214 | 41 |

AC/DC Beschaltung
(3 Draht):**connection voltage type:**

- 19: 24V AC/DC up to 240V AC/ DC
- other voltages on request