**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

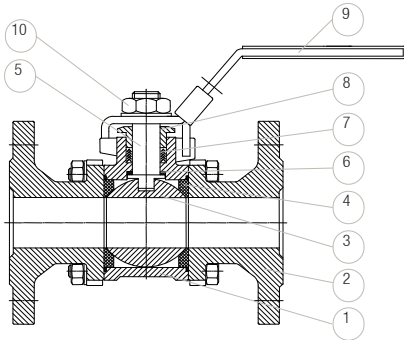
**Range of application:**

- 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.

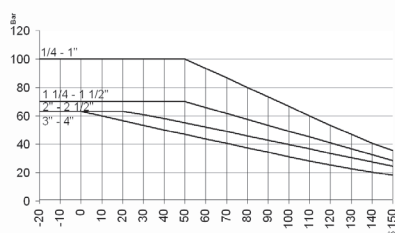
- PS: positioning indicator

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

For 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.

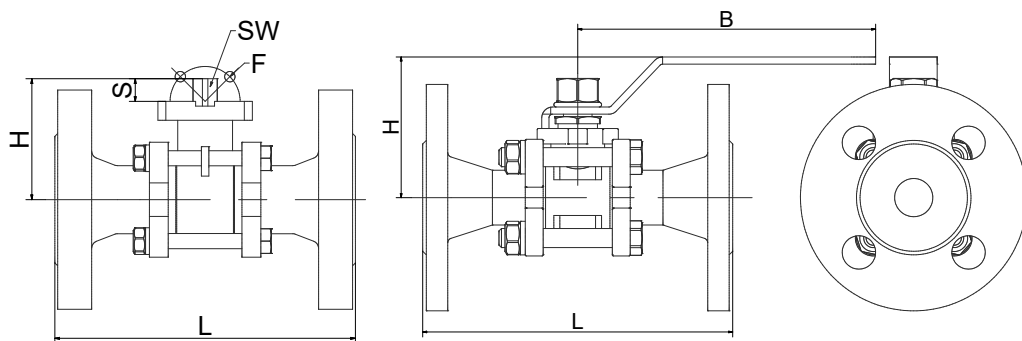
**For electric actuated valves only:**

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

**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.

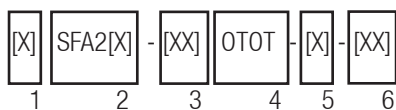


match code	size	nominal pressure	nominal size [mm]	L [mm]	H [mm]	B [mm]	F	SW* [mm]	S [mm]	CV** [m <sup>3</sup> /h]	breakaway torque*** [Nm]	weight [kg]
SFA20-52-30TOT	DN15	PN40	16	130	84	146.5	-	-	-	19.4	-	2.5
SFA20-53-30TOT	DN20	PN40	20	150	87	146.5	-	-	-	45.6	-	3.5
SFA20-54-30TOT	DN25	PN40	25	160	93	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  $\Delta p$  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**

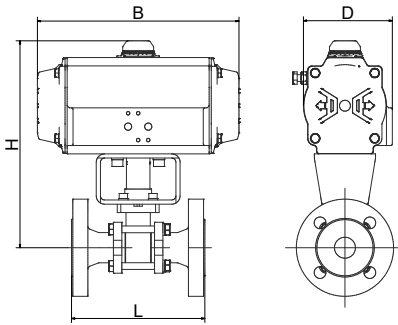
High quality pneumatic actuator made of alloy with air connection according to NAMUR and positioning indicator. The actuator works with the rack/bevel method. For further details see the technical data sheet "DR/SC".

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.

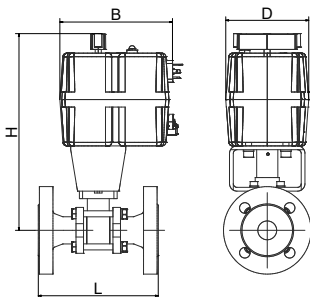
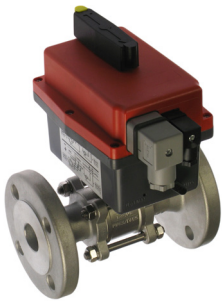
match code	double acting: DSFA21					single acting: SSFA21				
	actuator	H [mm]	B [mm]	D [mm]	weight [kg]	actuator	H [mm]	B [mm]	D [mm]	weight [kg]
xSFA21-52-30T0T-x	DR010	126	118	62	2.95	SC030-G	145	153.5	84.5	4
xSFA21-53-30T0T-x	DR015	133	136	72	4.5	SC030-H	149	153.5	84.5	5.2
xSFA21-54-30T0T-x	DR015	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**

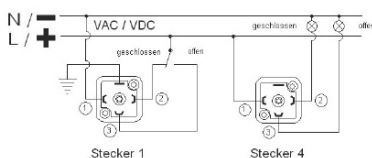
High-quality electric actuator in compact design with a body made of high-strength plastics. It has a high-performance motor and a gear drive made of metal. A central control room heater and an electronic torque limiter are equipped as standard. For further details see the technical data sheet "J".

**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	J420	243	177	110	5.15
ESFA21-54-30T0T-x	J420	251	177	110	5.2
ESFA21-55-30T0T-x	J435	229	177	110	8.6
ESFA21-56-30T0T-x	J435	239	177	110	9.5
ESFA21-57-30T0T-x	J455	273	177	110	13.6
ESFA21-58-30T0T-x	J485	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