

Datasheet

Pneumatic actuators

Si-503 EN

Edition: 2017-03

Type A - DA

Double acting actuator

Type A - SC

Single acting actuator (spring to close)

Type A - SO

Single acting actuator (spring to open)

- **Compact design**
- **Patented backlash-free torque transmission**
- **Low friction seals**
- **Optimized torque curve**
- **Standardised connections between valve and accessories**

SOMAS actuators are designed for optimal function in control and on/off applications. The type A pneumatic actuators are specifically made to fit the SOMAS range of valves. They can also be used with most 90° rotary valves. The A-DA actuator is double acting and the A-SC and A-SO actuators are single acting spring return for fail safe operation. SOMAS offer a patented backlash-free transmission friction coupling (valid for $D \leq 50$) to optimize control performance and eliminate backlash. The actuators are designed to fit valves and accessories with the ISO 5211 and VDI/VDE 3845.

SOMAS actuators have a torque curve corresponding to the torque demand for ball segment, butterfly, and ball valves. Low-friction seals allow for a low starting torque. Single or dual- cylinder units are used depending on the required torque and air supply pressure.

Single acting actuators are optimised according to compact dimensions. The springs are supplied in a cartridge to reduce the risk of injury and to simplify maintenance.

Adjustable travel stops are provided for both open and closed positions.





Mounting

The standard actuator mounting is perpendicular to the pipeline as shown in position A (see Fig.1).

Position B, C or D is available on request (specify when ordering).

Always specify mounting position when ordering.

The actuator is mounted in position A if the position is not stated.

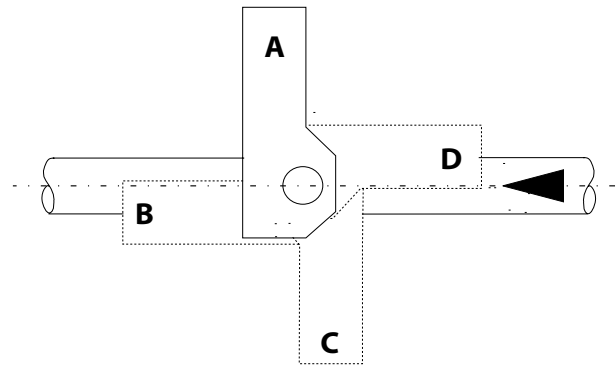


Fig.1 Mounting

Torque

The linear motion from the piston is converted into a rotary motion via a linkage mechanism. The curve shows the output torque from the actuator as a function of the actuator shaft angle (see Fig.2).

Maximum torque is achieved in the closed position which corresponds to the demand of ball segment valves, ball valves and metal seated butterfly valves.

For butterfly valves, the dynamic torque can be high in case of high differential pressure across the valve. This increased torque demand is normally covered by the actuator selection tables.

The highest specified value for each size, in the tables below, is the upper limit of permitted transfer torque.

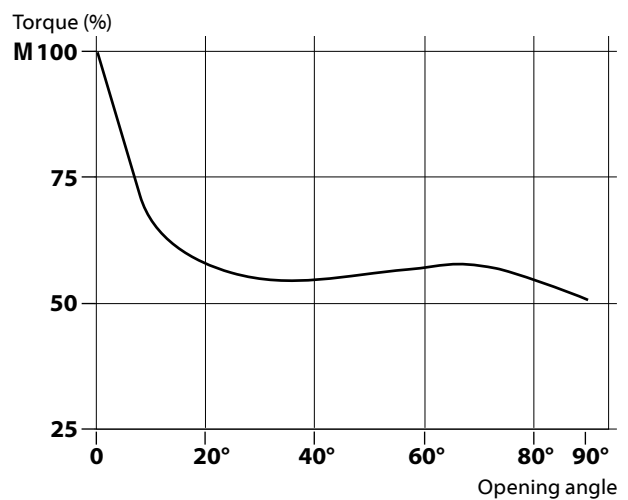


Fig.2 Double acting actuator type A



Closing torque M100 (Nm) at air supply 5,5 bar				Closing torque M100 (Nm) at air supply 4 bar				Cylinder volume (litre)			
Type	DA	SC (Spring to close)	SO (Spring to open)	Type	DA	SC (Spring to close)	SO (Spring to open)	Type	DA	SC (Spring to close)	SO (Spring to open)
A11	84			A11	61			A11	0.22		
A13	140	55	55	A13	102	45	45	A13	0.38	0.38	0.38
A21	196			A21	142			A21	0.42		
A22	413			A22	300			A22	0.8		
A23	441	150	150	A23	370	150	150	A23	1.12	1.1	1.1
A24		300	300	A24	528	300	300	A24	1.5	2.2	2.2
A31	761			A31	553			A31	1.74		
A32	1609			A32	1170			A32	3.2		
A33		600	600	A33	1500	600	600	A33	4.7	4.7	4.7
A34		1200	1200	A34	2100	1200	1200	A34	6.2	9.2	9.2
A41	2914			A41	2118			A41	6.5		
A42	6117			A42	4447			A42	12		
A43		2000	2000	A43	5750	2000	2000	A43	17.5	17.5	17.5
A44		4000	4000	A44	8000	4000	4000	A44	23	33.7	33.7
A51	9552			A51	6945			A51	22.1		
A52	19925			A52	14485			A52	40.6		



Actuator selection table for Ball segment and Butterfly Valves
Valves with differential pressure $\Delta p > 10(\text{bar})$
Air supply 5.5 bar minimum

Valve type	KVTW/KVXW	KVTF/KVXF	KVTF/KVXF	KVTF/KVXF	KVT/KVX	VSS	VSS	MTV,MTVL,MTVF
Valve body	-A, -D	-C	-B	-B	-A	-A,-F	-A,-F,-L	-A,-F,-L
Rating	PN25-40	PN25-40	PN25	PN50	PN100	PN25	PN50	PN25
Data sheet	Si-113,114	Si-112	Si-110	Si-111	Si-	Si-203	Si-204	Si-205
Actuator type	DN	DN	DN	DN	DN	DN	DN	DN
Double acting (DA)								
A11-DA	25/2-40	25/2-40						
A13-DA	50	50			25/5-40			
A21-DA	65-100	65-100	80-100		50	80-100	80-100	80-100
A22-DA	150	150	125	80-100	80	125-200	80-150	125-200
A23-DA					100	250		250
A31-DA	200-250	200-250	150-200	150		300	200-250	300
A32-DA		300	250	200	150	350-400	300	350-400
A41-DA		350-400	300-350	250		450-600	350-400	500
A42-DA			400-600			700-800	500	
A51-DA			700			900-1200	600	
A52-DA								
Single acting (SC/SO)								
A13-SC/SO	25/2-50	25/2-50						
A23-SC/SO	65-100	65-100	80-100		25/5-50	80		80
A24-SC/SO	150	150	125	80-100	80	100-200	80-100	100-200
A33-SC/SO	200-250	200-250	150-200	150	100	250-300	150-200	250-300
A34-SC/SO		300	250	200		350	250-300	350
A43-SC		350-400	300-350	250		400-450	350-400	400
A43-SO			300-350	250	150	400-450	350-400	400
A44-SC			400			500-600	500	500
A44-SO			400			500-700	500	500



Actuator selection table for Ball segment and Butterfly Valves

Valves with differential pressure $\Delta p \leq 10(\text{bar})$

Air supply 5.5 bar minimum

Valve type	KVTW/KVXW	KVTF/KVXF	VSS	MTV,MTVL,MTVF
Valve body	-A, -D	-C	-A,-F	-A,-F,-L
Rating	PN25-40	PN25-40	PN25	PN25
Data sheet	Si-113,114	Si-112	Si-203	Si-205
Actuator type	DN	DN	DN	DN
Double acting (DA)				
A11-DA	25/2-50	25/2-40		
A13-DA	65-100	65-100		
A21-DA	150	150	80-150	80-150
A22-DA	200	200	200-250	200-250
A23-DA			250	250
A31-DA	250	-	300-350	300-350
A32-DA		-	400	400
A41-DA		-	-	500
A42-DA			-	
A51-DA			-	
A52-DA				
Single acting (SC/SO)				
A13-SC/SO	25/2-50	25/2-50		
A23-SC/SO	65-100	65-100	80	80
A24-SC/SO	150-200 ¹⁾	150-200 ¹⁾	100-200	100-200
A33-SC/SO	250	250	250-300	250-300
A34-SC/SO		-	350	350
A43-SC		-	400-450	400
A43-SO			400-450	400
A44-SC			-	500
A44-SO			-	500

1) = No HiCo seats, for valves with HiCo seats use table for $\Delta p > 10(\text{bar})$

Accessories

To achieve certain functions, the actuators can be fitted with different types of accessories; such as positioners, solenoid valves and limit switches.

SOMAS offer many alternative solutions including mechanical micro switches and different types of solid state proximity switches.

Solenoid valves for on/off applications can be mounted on the actuator.

See data sheet Si-805EN and Si-811EN below section 4 in the SOMAS product catalogue for codes for positioners.

Design options

In addition to the standard design the actuators are available in different optional designs according to the information below.

- E = ATEX design
- H = High temperature design
- HM = Hand operated
- LC = Locking device (closed position)
- V = Larger air connections
- X = Special design
- B = Bronze bushing in lever

Standard actuators will be delivered if there are no option codes stated when ordering.



Actuator selection table for Ball segment and Butterfly Valves
Valves with differential pressure $\Delta p > 10$ (bar)
Air supply 4 bar minimum

Valve type	KVTW/KVXW	KVTF/KVXF	KVTF/KVXF	KVTF/KVXF	KVT/KVX	VSS	VSS	MTV,MTVL,MTVF
Valve body	-A, -D	-C	-B	-B	-A	-A,-F	-A,-F,-L	-A,-F,-L
Rating	PN25-40	PN25-40	PN25	PN50	PN100	PN25	PN50	PN25
Data sheet	Si-113,114	Si-112	Si-110	Si-111	Si-	Si-203	Si-204	Si-205
Actuator type	DN	DN	DN	DN	DN	DN	DN	DN
Double acting (DA)								
A11-DA	25/2-40	25/2-40						
A13-DA	50	50			25/5-25			
A21-DA					40	80		80
A22-DA	65-100	65-100	80-100	80	50	100-200	80-100	100-200
A23-DA	150	150	125		80		150	
A24-DA	200			100				
A31-DA		200	150		100	250	200	250
A32-DA	250	250-300	200-250	150	150	300-350	250-300	300-350
A33-DA				200		400		400
A34-DA						450		
A41-DA		350	300	250			350-400	
A42-DA		400	350-400			500-750	500	500
A43-DA			500-600			800		
A44-DA								
A51-DA						900	600	
A52-DA			700			1000-1200		
Single acting (SC/SO)								
A13-SCL/SOL	25/2-40	25/2-40						
A23-SC/SOL	50-100	50-100	80-100		25/5-50	80-100		80
A24-SC/SOL	150	150	125	80-100	80	125-200	80-100	100-200
A33-SC/SOL	200-250	200-250	150-200	150	100	250-300	150-200	250-300
A34-SC/SOL		300	250	200	150	350	250-300	350
A43-SC/SOL		350	300-350	250		400-450	350-400	400
A44-SC		400	400			500-600	500	500
A44-SOL			400			500-600	500	500



Actuator selection table for Ball segment and Butterfly Valves
Valves with differential pressure $\Delta p \leq 10$ (bar)
Air supply 4 bar minimum

Valve type	KVTW/KVXW	KVTF/KVXF	VSS	MTV,MTVL,MTVF
Valve body	-A, -D	-C	-A,-F	-A,-F,-L
Rating	PN25-40	PN25-40	PN25	PN25
Data sheet	Si-113,114	Si-112	Si-203	Si-205
Actuator type	DN	DN	DN	DN
Double acting (DA)				
A11-DA	25/2-50	25/2-50		
A13-DA				
A21-DA	65-100 ¹⁾	65-100 ¹⁾	80-100	80-100
A22-DA	150	150	125-200	125-200
A23-DA	200	200		
A24-DA	200 ¹⁾	200 ¹⁾	250	250
A31-DA	250 ¹⁾	250 ¹⁾	300	300
A32-DA		-	350-400	350-400
A33-DA			400	400
A34-DA			450	
A41-DA		-	500	500
A42-DA		-	-	
A43-DA			-	
A44-DA				
A51-DA			-	
A52-DA			-	
Single acting (SC/SO)				
A13-SCL/SOL	25/2-40	25/2-40		
A23-SC/SOL	50-100	50-100	80-100	80-100
A24-SC/SOL	150-200	150-200	125-200	125-200
A33-SC/SOL	250 ¹⁾	250 ¹⁾	250-300	250-300
A34-SC/SOL		-	350-400	350-400
A43-SC/SOL		-	450-500	500
A44-SC		-	-	
A44-SOL			-	

1) = No HiCo seats, for valves with HiCo seats use table for $\Delta p > 10$ (bar)

Designation for low air supply (4 bar)

The following actuators will have an additional code (L) as the return spring is not the same as in the actuators for 5.5 bar.

SC (Spring closes)

A13-SCL.

SO (Spring opens)

A13-SOL, A23-SOL, A24-SOL, A33-SOL, A34-SOL, A43-SOL, A44-SOL.

The code for low air supply design has to be specified when ordering.



Actuator selection table for ball valves type SKV (air supply min. 5.5 bar)

Double acting actuator type DA							Double acting actuator type DA						
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	A11-DA	A11-DA	A11-DA	A11-DA	A11-DA	25	15	A11-DA	A11-DA	A11-DA	A11-DA	A13-DA
40	15	A11-DA	A11-DA	A11-DA	A11-DA	A13-DA	40	15	A11-DA	A11-DA	A11-DA	A13-DA	A13-DA
50	20	A11-DA	A11-DA	A13-DA	A13-DA	A21-DA	50	20	A13-DA	A13-DA	A13-DA	A21-DA	A21-DA

Double acting actuator type DA							Double acting actuator type DA						
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A21-DA	A21-DA	A22-DA	A22-DA	A22-DA	80	25	A22-DA	A22-DA	A22-DA	A22-DA	A22-DA
100	30	A22-DA	A22-DA	A22-DA	A23-DA	A31-DA	100	30	A22-DA	A23-DA	A31-DA	A31-DA	A32-DA
125	35	A31-DA	A31-DA	A31-DA	A31-DA	A32-DA	125	35	A31-DA	A31-DA	A32-DA	A32-DA	A32-DA
150	40	A31-DA	A31-DA	A32-DA	A32-DA	A32-DA	150	40	A32-DA	A32-DA	A41-DA	A41-DA	A41-DA
200	50	A32-DA	A32-DA	A41-DA	A41-DA	A42-DA	200	50	A32-DA	A41-DA	A42-DA	A42-DA	A42-DA
250	70	A41-DA	A41-DA	A42-DA	A42-DA	A42-DA	250	70	A42-DA	A42-DA	A51-DA	A51-DA	A52-DA
300	80	A41-DA	A42-DA	A42-DA	A51-DA	A51-DA	300	80	A42-DA	A51-DA	A52-DA	A52-DA	A52-DA
350	90	A51-DA	A51-DA	A51-DA	A51-DA	A52-DA	350	90	A51-DA	A52-DA	A52-DA	A52-DA	A52-DA ¹
400	100	A51-DA	A51-DA	A51-DA	A52-DA	A52-DA	400	100	A51-DA	A52-DA	A52-DA	-	-

¹ Air supply = 6 bar

The information will also be found in the data sheet for the actual valve type.



Single acting actuator type SC/SO

Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)				
		10	20	30	40	50
25	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO
40	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO	A23-SC/SO
50	20	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO

Single acting actuator type SC/SO

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		10	20	30	40	50
25	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO
40	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A23-SC/SO	A23-SC/SO
50	20	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO

Single acting actuator type SC/SO

Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)				
		5	10	15	20	25
80	25	A23-SC/SO	A23-SC/SO	A23-SC/SO	A24-SC/SO	A24-SC/SO
100	30	A23-SC/SO	A24-SC/SO	A24-SC/SO	A24-SC/SO	A33-SC/SO
125	35	A33-SC/SO	A33-SC/SO	A33-SC/SO	A33-SC/SO	A34-SC/SO
150	40	A33-SC/SO	A33-SC/SO	A34-SC/SO	A34-SC/SO	A34-SC/SO
200	50	A34-SC/SO	A34-SC/SO	A43-SC/SO	A43-SC/SO	A43-SC/SO
250	70	A43-SC/SO	A43-SC/SO	A44-SC/SO	A44-SC/SO	A44-SC/SO
300	80	A43-SC/SO	A44-SC/SO	A44-SC/SO	-	-

Single acting actuator type SC/SO

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		5	10	15	20	25
80	25	A24-SC/SO	A24-SC/SO	A24-SC/SO	A24-SC/SO	A24-SC/SO
100	30	A24-SC/SO	A33-SC/SO	A33-SC/SO	A33-SC/SO	A34-SC/SO
125	35	A33-SC/SO	A34-SC/SO	A34-SC/SO	A34-SC/SO	A34-SC/SO
150	40	A34-SC/SO	A34-SC/SO	A43-SC/SO	A43-SC/SO	A43-SC/SO
200	50	A34-SC/SO	A43-SC/SO	A44-SC/SO	A44-SC/SO	A44-SC/SO
250	70	A44-SC/SO	A44-SC/SO	-	-	-
300	80	A44-SC/SO	-	-	-	-

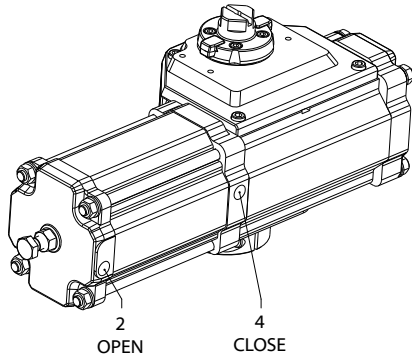
The information will also be found in the data sheet for the actual valve type.

SC = Spring to close

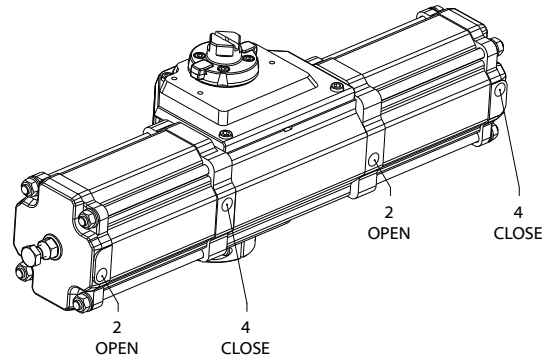
SO = Spring to open

Air connections

Type A size A11, A21 and s.o. has one cylinder.



Type A size A22, A32 and s.o. has two cylinders.





Actuator selection table for ball valves type SKV (air supply min. 4 bar)

Double acting actuator type DA							Double acting actuator type DA						
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	A11-DA	A11-DA	A11-DA	A11-DA	A11-DA	25	15	A11-DA	A11-DA	A11-DA	A13-DA	A13-DA
40	15	A11-DA	A11-DA	A11-DA	A13-DA	A13-DA	40	15	A11-DA	A11-DA	A13-DA	A13-DA	A13-DA
50	20	A21-DA	A21-DA	A21-DA	A21-DA	A22-DA	50	20	A21-DA	A21-DA	A21-DA	A22-DA	A22-DA

Double acting actuator type DA							Double acting actuator type DA						
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A21-DA	A22-DA	A22-DA	A22-DA	A22-DA	80	25	A22-DA	A22-DA	A23-DA	A24-DA	A24-DA
100	30	A22-DA	A22-DA	A23-DA	A23-DA	A31-DA	100	30	A23-DA	A24-DA	A24-DA	A32-DA	A33-DA
125	35	A31-DA	A31-DA	A31-DA	A32-DA	A32-DA	125	35	A31-DA	A32-DA	A32-DA	A33-DA	A33-DA
150	40	A31-DA	A32-DA	A32-DA	A33-DA	A41-DA	150	40	A32-DA	A33-DA	A41-DA	A42-DA	A43-DA
200	50	A32-DA	A33-DA	A41-DA	A42-DA	A42-DA	200	50	A41-DA	A42-DA	A42-DA	A44-DA	A44-DA
250	70	A41-DA	A42-DA	A42-DA	A43-DA	A43-DA	250	70	A42-DA	A43-DA	A51-DA	A52-DA	-
300	80	A42-DA	A42-DA	A43-DA	A44-DA	A52-DA	300	80	A43-DA	A44-DA	A52-DA	A52-DA	-
350	90	A51-DA	A51-DA	A51-DA	A52-DA	A52-DA	350	90	A52-DA	A52-DA	-	-	-
400	100	A51-DA	A52-DA	A52-DA	A52-DA	-	400	100	A52-DA	-	-	-	-

¹ Air supply = 6 bar

The information will also be found in the data sheet for the actual valve type.

Single acting actuator type SC/SO							Single acting actuator type SC/SO						
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO	25	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A13-SC/SO	A23-SC/SO
40	15	A13-SC/SO	A13-SC/SO	A13-SC/SO	A23-SC/SO	A23-SC/SO	40	15	A13-SC/SO	A13-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO
50	20	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO	50	20	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO	A23-SC/SO

Single acting actuator type SC/SO							Single acting actuator type SC/SO						
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53 seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A23-SC/SO	A23-SC/SO	A23-SC/SO	A24-SC/SO	A24-SC/SO	80	25	A24-SC/SO	A24-SC/SO	A24-SC/SO	A24-SC/SO	A24-SC/SO
100	30	A23-SC/SO	A24-SC/SO	A24-SC/SO	A24-SC/SO	A33-SC/SO	100	30	A24-SC/SO	A33-SC/SO	A33-SC/SO	A33-SC/SO	A34-SC/SO
125	35	A33-SC/SO	A33-SC/SO	A33-SC/SO	A33-SC/SO	A34-SC/SO	125	35	A33-SC/SO	A33-SC/SO	A34-SC/SO	A34-SC/SO	A34-SC/SO
150	40	A33-SC/SO	A33-SC/SO	A34-SC/SO	A34-SC/SO	A34-SC/SO	150	40	A34-SC/SO	A34-SC/SO	A43-SC/SO	A43-SC/SO	A43-SC/SO
200	50	A34-SC/SO	A34-SC/SO	A43-SC/SO	A43-SC/SO	A43-SC	200	50	A34-SC/SO	A43-SC/SO	A44-SC/SO	A44-SC/SO	-
200	50					A44-SO	250	70	A44-SC/SO	A44-SC/SO	-	-	-
250	70	A43-SC/SO	A43-SC/SO	A44-SC/SO	A44-SC/SO	A44-SC/SO	300	80	A44-SO	-	-	-	-
300	80	A43-SC/SO	A44-SC/SO	A44-SC	-	-							

The information will also be found in the data sheet for the actual valve type.

SC = Spring to close

SO = Spring to open

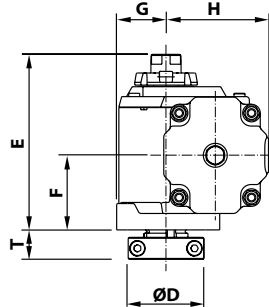
See the information at page 4 for codes for actuators for the low air supply design.

Accessories

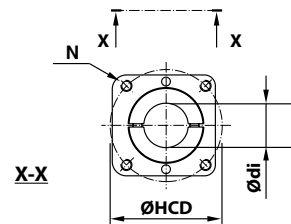




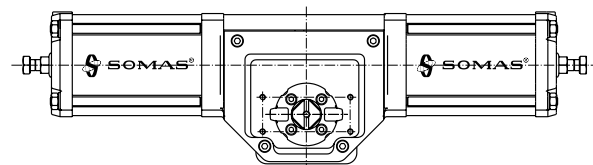
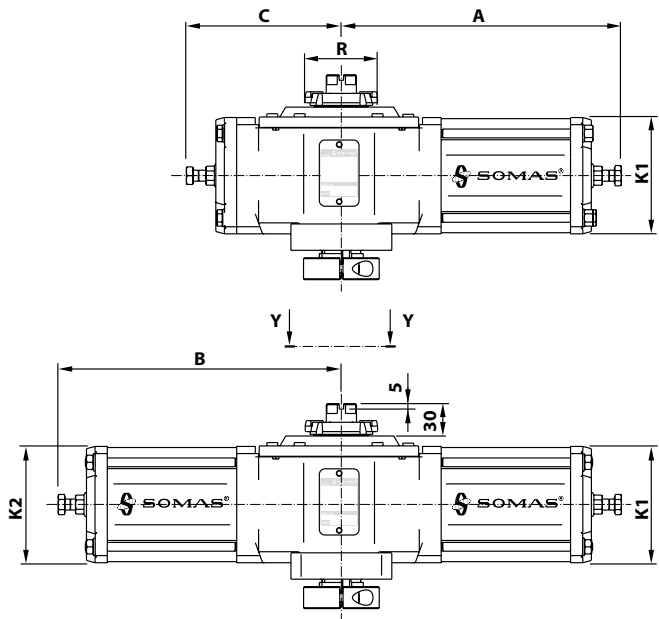
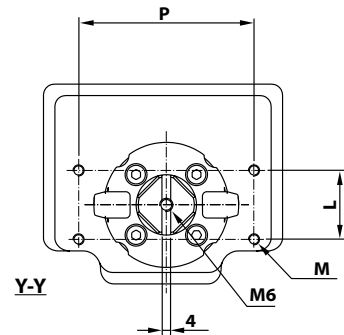
Measure T and
ØD is valid
only for Ødi
15-50



Mounting pattern
according to
ISO 5211



VDI/VDE



Actuator type A (DA) double acting

Type	A	B	C	Ødi	ØD	E	F	G	H	K1	K2	L	M	N	P	R	T	ØHCD	Air-conn.	Weight
A11-F07	215	-	90	15-20	48	128	50	37	73	84	-	30	M5	M8	80	56	14	70	1/4"	3
A13-F07	250	-	90	15-20	48	128	50	37	83	106	-	30	M5	M8	80	56	14	70	1/4"	5
A21-F10	255	-	140	20-30	69	160	68	45	94	106	-	30	M5	M10	80	66	27	102	1/4"	7,5
A22-F10	255	260	-	20-30	69	160	68	45	94	106	106	30	M5	M10	80	66	27	102	1/4"	9
A23-F10	305	-	140	20-30	69	160	68	45	117	152	-	30	M5	M10	80	66	27	102	1/4"	11
A24-F10	305	310	-	20-30	69	160	68	45	117	152	106	30	M5	M10	80	66	27	102	1/4"	15
A31-F14	380	-	215	30-50	98	225	107,5	69	144	152	-	30	M5	M16	130	66	40	140	1/4"	23
A32-F14	380	395	-	30-50	98	225	107,5	69	144	152	152	30	M5	M16	130	66	40	140	1/4"	29
A33-F14	470	-	215	30-50	98	225	107,5	69	183	228	-	30	M5	M16	130	66	40	140	3/8"	36
A34-F14	470	485	-	30-50	98	225	107,5	69	183	228	152	30	M5	M16	130	66	40	140	1/4"+3/8"	53
A41-F16	550	-	315	40-80	98	309	153	97	211	228	-	50	M6	M20	200	66	40	165	3/8"	70
A42-F16	545	560	-	40-80	98	309	153	97	211	228	228	50	M6	M20	200	66	40	165	3/8"	85
A43-F16	680	-	315	40-80	98	309	153	97	279	354	-	50	M6	M20	200	66	40	165	1/2"	142
A44-F16	680	695	-	40-80	98	309	153	97	279	354	228	50	M6	M20	200	66	40	165	3/8"+1/2"	157
A51-F30	745	-	370	70-100	-	412	198	130	314	354	-	50	M6	M20	200	66	-	298	1/2"	198
A52-F30	745	760	-	70-100	-	412	198	130	314	354	354	50	M6	M20	200	66	-	298	1/2"	234

Actuator type A (SC/SO) single acting

Type	A	B	C	Ødi	ØD	E	F	G	H	K1	K2	L	M	N	P	R	T	ØHCD	Air-conn.	Weight
A13-F07	325	-	90	15-20	48	128	50	37	83	106	-	30	M5	M8	80	56	14	70	1/4"	7
A23-F10	415	-	140	20-30	69	160	68	45	117	152	-	30	M5	M10	80	66	27	102	1/4"	15
A24-F10	415	420	-	20-30	69	160	68	45	117	152	152	30	M5	M10	80	66	27	102	1/4"	24,5
A33-F14	660	-	215	30-50	98	225	107,5	69	183	228	-	30	M5	M16	130	66	40	140	3/8"	56
A34-F14	665	680	-	30-50	98	225	107,5	69	183	228	228	30	M5	M16	130	66	40	140	3/8"	84
A43-F16	920	-	315	40-80	98	309	153	97	279	354	-	50	M6	M20	200	66	40	165	1/2"	156
A44-F16	925	935	-	40-80	98	309	153	97	279	354	354	50	M6	M20	200	66	40	165	1/2"	210

Weight = Weight for actuator without mounting kit



Ordering example

Pneumatic double acting actuator type A32-DA. Mounting position A.

When ordering actuators separately, please specify also the mounting kit you require for the actual valve type.

Material specification

Housing, cover, end cover:	Aluminium (painted)
Cylinder:	Aluminium (painted)
Tie rod:	EN 1.4305
Piston seal:	Carbon filled PTFE + O-ring made of cold-resistant nitrile rubber
Screws/nuts:	Acidproof steel
Connection: (between actuator and accessories)	Plastic tubing (standard) Acidproof steel tubing (option)

Technical specification

Air supply:	4 - 8 bar, clean and dry instrument air acc. to ISO 8573-1
Rotary motion:	Max 95° adjustable travel stops
Ambient temperature:	- 40 to + 90 °C (standard) (+ 120 °C Option O-ring made of Viton)

Type designation, actuator type A

A 32 - DA - H - D50 - F14

1 Type of actuator

2 Acuator size acc. to the selection table

3 Function

DA = Double acting actuator
SC = Single acting actuator (spring to close)
SO = Single acting actuator (spring to open)
SCL = Single acting actuator (spring to close) low air supply design
SOL = Single acting actuator (spring to open) low air supply design

4 Option

E = ATEX design
H = High temperature design
HM = Hand operated
LC = Locking device (closed position)
V = Larger air connections
X = Special design
B = Bronze bushing in lever

5 Shaft diameter

6 Mounting pattern for valve attachment (acc. to ISO 5211)

