Quarter turn actuators DAPS

Characteristics

General information → Page 9, 24

DAPS

- Size
  0008 ... 8000
- Torque
  8 ... 8000 Nm
- Swivel angle
  0 ... 90°

The quarter turn actuators DAPS are specially tailored to the requirements of the process industry. The torque is generated via a scotch yoke mechanism, which helps to overcome the valve's high breakaway torques. Given their robustness and graduated torques, the quarter turn actuators DAPS are predominantly used to control valves through which various media flow and whose rotation angle is limited to 90°, e.g. ball valves and butterfly valves.

- Compact design
- Torque characteristics adapted to process valves
- The single-acting actuator has half the torque of the double-acting actuator for the same housing size
- Low wear thanks to the simple and robust mechanical system
- Adjustable swivel angle
- Selected types in accordance with the ATEX directive for potentially explosive atmospheres
- → www.festo.com/en/ex
- Connection pattern to NAMUR VDI/VDE 3845 for mounting solenoid valves

High-temperature version → Page 9, 24

DAPS T4

- Size
  0015 ... 0960
- Torque
  15 ... 960 Nm
- Swivel angle
  0 ... 90°
- Temperature range
  -20 ... +150°

The high-temperature version of the quarter turn actuator DAPS-T4 is specifically designed for the requirements for controlling process valves used with hot media flows.

- Compact design
- Torque characteristics adapted to process valves
- The single-acting actuator has half the torque of the double-acting actuator for the same housing size
- Low wear thanks to the simple and robust mechanical system
- Adjustable swivel angle
- Selected types in accordance with the ATEX directive for potentially explosive atmospheres
- → www.festo.com/en/ex
- Connection pattern to NAMUR VDI/VDE 3845 for mounting solenoid valves

Stainless-steel version → Page 41

DAPS CR

- Size
  0015 ... 0480
- Torque
  15 ... 480 Nm
- Swivel angle
  0 ... 90°

Single-acting and double-acting quarter turn actuators DAPS in stainless steel are used for automating valves with a 90° swivel angle. The single-acting variant has different spring forces for different supply pressures.

- Low wear thanks to the simple and robust mechanical system
- Torque characteristics adapted to process valves
- Selected types in accordance with the ATEX directive for potentially explosive atmospheres
- → www.festo.com/en/ex
- Connection pattern to NAMUR VDI/VDE 3845 for mounting solenoid valves

Version with handwheel → Page 54

DAPS MW

- Size
  0106 ... 1920
- Torque
  106 ... 1920 Nm
- Swivel angle
  0 ... 90°

When the supply pressure is switched off, the handwheel can be used to manually change the position of the valve or actuator. The handwheel therefore acts as a manual emergency override.

- Low wear thanks to the simple and robust mechanical system
- Torque characteristics adapted to process valves
- Selected types in accordance with the ATEX directive for potentially explosive atmospheres
- → www.festo.com/en/ex
- Connection pattern to NAMUR VDI/VDE 3845 for mounting solenoid valves

Product range overview

Flange hole pattern – Connection dimensions to DIN ISO 5211 and NAMUR VDI/VDE 3845										
Connection	F03	F03	F04	F04	F05	F05	F05	F07	F07	Shaft
Square	T11	T11	T11	T14	T11	T14	T17	T14	T17	height
DAPS-0008-...-F03	■	–	–	–	–	–	–	–	–	**20**
DAPS-0015-...-F03	–	■	–	–	–	–	–	–	–	**20**
DAPS-0015-...-F04	–	–	■	–	–	–	–	–	–	**20**
DAPS-0030-...-F0305	–	■	–	–	■	–	–	–	–	**20**
DAPS-0030-...-F04	–	–	■	–	–	–	–	–	–	**20**
DAPS-0060-...-F04	–	–	–	■	–	–	–	–	–	**20**
DAPS-0060-...-F0507	–	–	–	–	–	■	–	■	–	**20**
DAPS-0106-...-F0507	–	–	–	–	–	–	■	–	■	**20**
Hole pattern for NAMUR	30	30	30	30	30	30	30	30	30	
accessories	30	80	80	80	80	80	80	80	80	

Flange hole pattern – Connection dimensions to DIN ISO 5211 and NAMUR VDI/VDE 3845													
Connection	F07	F10	F10	F12	F10	F12	F12	F14	F14	F16	F16	F25	Shaft
Square	T22	T22	T27	T27	T36	T36	T46	T36	T46	T46	T46	T55	height
DAPS-0180-...-F0710	■	■	–	–	–	–	–	–	–	–	–	–	**30**
DAPS-0240-...-F0710	■	■	–	–	–	–	–	–	–	–	–	–	**30**
DAPS-0360-...-F0710	■	■	–	–	–	–	–	–	–	–	–	–	**30**
DAPS-0480-...-F1012	–	–	■	■	–	–	–	–	–	–	–	–	**30**
DAPS-0720-...-F1012	–	–	■	■	–	–	–	–	–	–	–	–	**30**
DAPS-0960-...-F1012	–	–	–	–	■	■	–	–	–	–	–	–	**30**
DAPS-0960-...-F12	–	–	–	–	–	■	–	–	–	–	–	–	**30**
DAPS-0960-...-F14	–	–	–	–	–	–	–	■	–	–	–	–	**30**
DAPS-1440-...-F12	–	–	–	–	–	■	–	–	–	–	–	–	**30**
DAPS-1440-...-F14	–	–	–	–	–	–	–	■	–	–	–	–	**30**
DAPS-1920-...-F14	–	–	–	–	–	–	–	–	■	–	–	–	**30**
DAPS-1920-...-F1216	–	–	–	–	–	–	■	–	–	■	–	–	**30**
DAPS-2880-...-F16	–	–	–	–	–	–	–	–	–	–	■	–	**30**
DAPS-3840-...-F16	–	–	–	–	–	–	–	–	–	–	■	–	**30**
DAPS-5760-...-F25	–	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-8000-...-R-F25	–	–	–	–	–	–	–	–	–	–	–	■	**30**
Hole pattern for NAMUR	30	30	30	30	30	30	30	30	30	30	30	30	
accessories	80	80	80	80	80	80	80	80	80	80	130	130	

Product range overview

Flange hole pattern – Connection dimensions to DIN ISO 5211 and NAMUR VDI/VDE 3845

Connection	F03	F04	F04	F05	F05	F05	F07	F07	Shaft
Square	T11	T11	T14	T11	T14	T17	T14	T17	height
DAPS-0015-...-F0305	■	–	–	■	–	–	–	–	**20**
DAPS-0015-...-F04	–	■	–	–	–	–	–	–	**20**
DAPS-0030-...-F04	–	–	■	–	–	–	–	–	**20**
DAPS-0030-...-F0507	–	–	–	–	■	–	■	–	**20**
DAPS-0053-...-F0507	–	–	–	–	–	■	–	■	**20**
Hole pattern for NAMUR accessories	30	30	30	30	30	30	30	30	
	80	80	80	80	80	80	80	80	

Flange hole pattern – Connection dimensions to DIN ISO 5211 and NAMUR VDI/VDE 3845

Connection	F07	F10	F10	F12	F10	F12	F12	F14	F14	F16	F16	Shaft
Square	T22	T22	T27	T27	T36	T36	T46	T36	T46	T46	T46	height
DAPS-0090-...-F0710	■	■	–	–	–	–	–	–	–	–	–	**30**
DAPS-0120-...-F0710	■	■	–	–	–	–	–	–	–	–	–	**30**
DAPS-0180-...-F0710	■	■	–	–	–	–	–	–	–	–	–	**30**
DAPS-0240-...-F1012	–	–	■	■	–	–	–	–	–	–	–	**30**
DAPS-0360-...-F1012	–	–	■	■	–	–	–	–	–	–	–	**30**
DAPS-0480-...-F1012	–	–	–	–	■	■	–	–	–	–	–	**30**
DAPS-0480-...-F12	–	–	–	–	–	■	–	–	–	–	–	**30**
DAPS-0480-...-F14	–	–	–	–	–	–	–	■	–	–	–	**30**
DAPS-0720-...-F12	–	–	–	–	–	■	–	–	–	–	–	**30**
DAPS-0720-...-F14	–	–	–	–	–	–	–	■	–	–	–	**30**
DAPS-0960-...-F14	–	–	–	–	–	–	–	–	■	–	–	**30**
DAPS-0960-...-F1216	–	–	–	–	–	–	■	–	–	■	–	**30**
DAPS-1440-...-F16	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-1920-...-F16	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-2880-...-F16	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-4000-...-RS1-F25	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-4000-...-RS2-F25	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-4000-...-RS3-F25	–	–	–	–	–	–	–	–	–	–	■	**30**
DAPS-4000-...-RS4-F25	–	–	–	–	–	–	–	–	–	–	■	**30**
Hole pattern for NAMUR accessories	30	30	30	30	30	30	30	30	30	30	30	
	80	80	80	80	80	80	80	80	80	80	130	

Product range overview

DAPS CR, double-acting

Flange hole pattern – Connection dimensions to DIN ISO 5211 and NAMUR VDI/VDE 3845

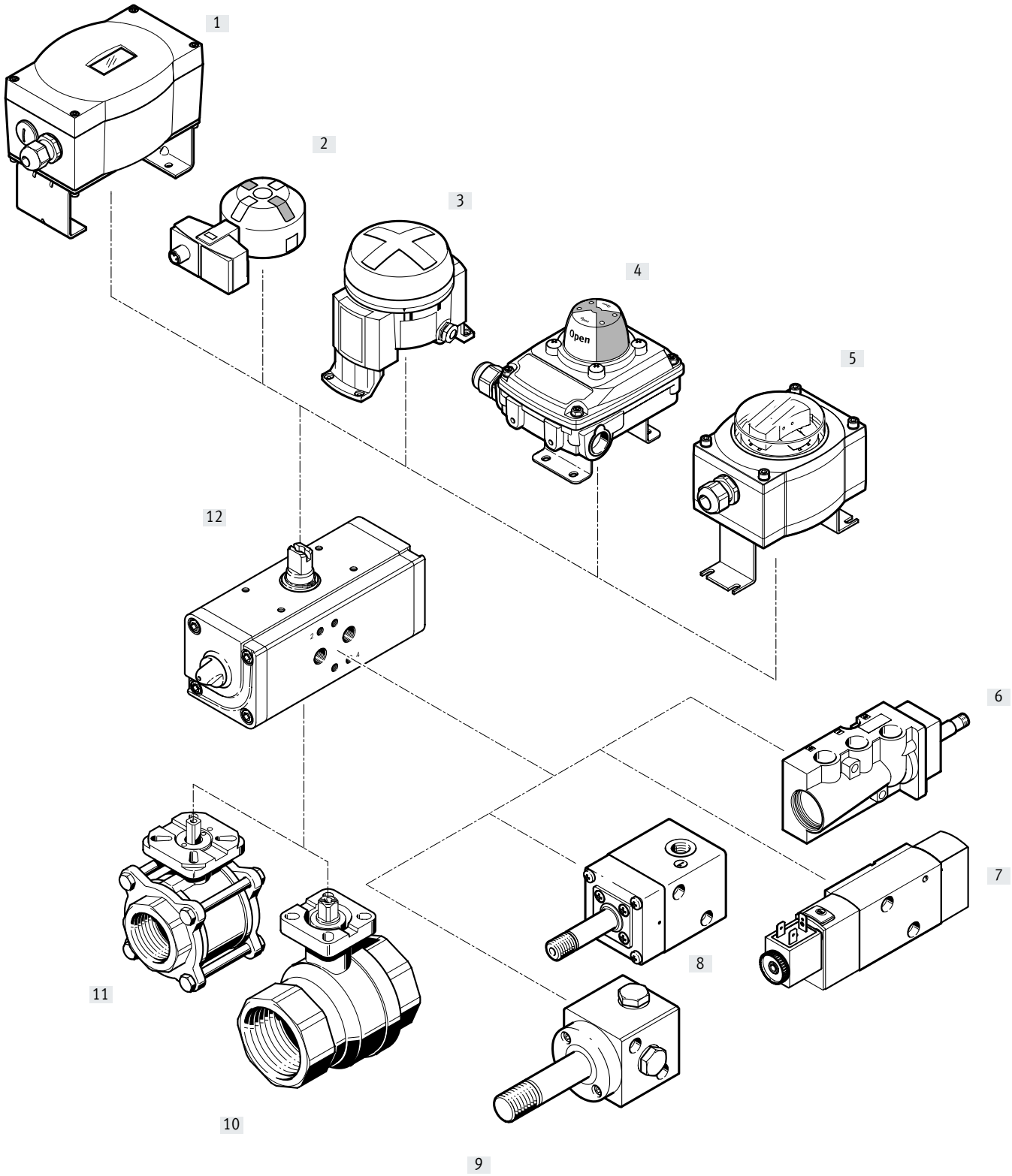
Connection	F03	F03	F05	F05	F05	F07	F07	F07	F10	F10	Shaft height
Square	T09	T11	T11	T14	T17	T14	T17	T22	T17	T22	
DAPS-0015-...-R-F03-CR	■	–	–	–	–	–	–	–	–	–	**20 mm**
DAPS-0030-...-R-F03-CR	■	–	–	–	–	–	–	–	–	–	**20 mm**
DAPS-0060-...-R-F0305-CR	–	■	■	–	–	–	–	–	–	–	**20 mm**
DAPS-0120-...-R-F0507-CR	–	–	–	■	–	■	–	–	–	–	**30 mm**
DAPS-0240-...-R-F0507-CR	–	–	–	–	■	–	■	–	–	–	**30 mm**
DAPS-0480-...-R-F0710-CR	–	–	–	–	–	–	–	■	–	■	**30 mm**
Hole pattern for NAMUR accessories	25	25	25	30	30	30	30	30	30	30	
	50	50	50	80	80	80	80	80	80	80	

DAPS CR, single-acting

Flange hole pattern – Connection dimensions to DIN ISO 5211 and NAMUR VDI/VDE 3845

Connection	F03	F03	F05	F05	F05	F07	F07	F07	F10	F10	Shaft height
Square	T09	T11	T11	T14	T17	T14	T17	T22	T17	T22	
DAPS-0015-...-RS1-F03-CR	■	–	–	–	–	–	–	–	–	–	**20 mm**
DAPS-0015-...-RS2-F03-CR	■	–	–	–	–	–	–	–	–	–	**20 mm**
DAPS-0015-...-RS3-F03-CR	■	–	–	–	–	–	–	–	–	–	**20 mm**
DAPS-0015-...-RS4-F03-CR	■	–	–	–	–	–	–	–	–	–	**20 mm**
DAPS-0030-...-RS1-F03-CR	–	■	■	–	–	–	–	–	–	–	**20 mm**
DAPS-0030-...-RS2-F03-CR	–	■	■	–	–	–	–	–	–	–	**20 mm**
DAPS-0030-...-RS3-F03-CR	–	■	■	–	–	–	–	–	–	–	**20 mm**
DAPS-0030-...-RS4-F03-CR	–	■	■	–	–	–	–	–	–	–	**20 mm**
DAPS-0060-...-RS1-F0305-CR	–	–	–	■	–	■	–	–	–	–	**30 mm**
DAPS-0060-...-RS2-F0305-CR	–	–	–	■	–	■	–	–	–	–	**30 mm**
DAPS-0060-...-RS3-F0305-CR	–	–	–	■	–	■	–	–	–	–	**30 mm**
DAPS-0060-...-RS4-F0305-CR	–	–	–	■	–	■	–	–	–	–	**30 mm**
DAPS-0120-...-RS1-F0507-CR	–	–	–	–	■	–	■	–	–	–	**30 mm**
DAPS-0120-...-RS2-F0507-CR	–	–	–	–	■	–	■	–	–	–	**30 mm**
DAPS-0120-...-RS3-F0507-CR	–	–	–	–	■	–	■	–	–	–	**30 mm**
DAPS-0120-...-RS4-F0507-CR	–	–	–	–	■	–	■	–	–	–	**30 mm**
DAPS-0240-...-RS1-F0507-CR	–	–	–	–	–	–	–	■	–	■	**30 mm**
DAPS-0240-...-RS1-F0507-CR	–	–	–	–	–	–	–	■	–	■	**30 mm**
DAPS-0240-...-RS1-F0507-CR	–	–	–	–	–	–	–	■	–	■	**30 mm**
DAPS-0240-...-RS1-F0507-CR	–	–	–	–	–	–	–	■	–	■	**30 mm**
Hole pattern for NAMUR accessories	25	25	25	30	30	30	30	30	30	30	
	50	50	50	80	80	80	80	80	80	80	

Peripherals overview



Peripherals overview

Mounting components and accessories			
		Brief description	→ Page/Internet
[1]	Positioner CMSX	For controlling the position of quarter turn actuators in process automation systems	cmsx
[2]	Sensor boxes SRBG	For electrical feedback and position monitoring of process valves which are actuated with quarter turn actuators	srbg
[3]	Limit switch attachments DAPZ	Round design, variant AR Electrical, inductive or inductive and explosion-proof sensing	dapz
[4]	Sensor boxes SRBC	For electrical feedback and position monitoring of process valves which are actuated with quarter turn actuators	srbc
[5]	Sensor boxes SRAP	Analogue sensor box continuously senses the entire swivel range and reports this back to the controller	srap
[6]	Solenoid valves NVF3[1)]	For F solenoid coil and explosion-proof F solenoid coil	nvf3
[7]	Solenoid valves VSNC	For single-acting and double-acting quarter turn actuators with a connection pattern to VDI/VDE 3845	vsnc
[8]	Solenoid valves VOFC	Solenoid valve with solenoid coil, connection pattern to NAMUR	vofc
[9]	Solenoid valves VOFD	Solenoid valve with solenoid coil, connection pattern to NAMUR	vofd
[10]	Ball valves VAPB	2-way, brass, pipe thread to EN 10226-1	vapb
[11]	Ball valves VZBA	2-way, stainless steel, optionally with pipe thread to EN 10226-1 or with welding ends	vzba
[12]	Quarter turn actuators DAPS	Connection pattern to VDI/VDE 3845 for mounting solenoid valves	9

1) Only solenoid valves from size 0015 upwards can be directly mounted

Type codes for DAPS

001	Series	
DAPS	Semi-rotary drive	

002	Size of valve actuator	
0008	0008	
0015	0015	
0030	0030	
0053	0053	
0060	0060	
0090	0090	
0106	0106	
0120	0120	
0180	0180	
0240	0240	
0360	0360	
0480	0480	
0720	0720	
0960	0960	
1440	1440	
1920	1920	
2880	2880	
3840	3840	
4000	4000	
5760	5760	
8000	8000	

003	Swivel angle	
90	90	

004	Closing direction	
R	Closes to the right	

005	Function	
	Double-acting	
S	Single-acting, pushing	

006	Spring force	
	None	
1	For connecting pressure of 2.8 bar	
2	For connecting pressure of 3.5 bar	
3	For connecting pressure of 4.2 bar	
4	For connecting pressure of 5.6 bar	

007	Flange pattern 1	
F03	Hole pattern F03	
F04	Hole pattern F04	
F05	Hole pattern F05	
F07	Hole pattern F07	
F10	Hole pattern F10	
F12	Hole pattern F12	
F14	Hole pattern F14	
F16	Hole pattern F16	
F25	Hole pattern F25	

008	Flange pattern 2	
	None	
F05	Hole pattern F05	
F07	Hole pattern F07	
F10	Hole pattern F10	
F12	Hole pattern F12	
F16	Hole pattern F16	

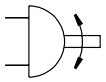
009	Manual override	
	None	
MW	Handwheel	

010	Corrosion protection	
	Standard	
CR	Stainless steel	

011	Temperature range	
	Standard	
T4	0 ... +150°C	
T6	-50 ... +60°C	

Data sheet

Function



Swivel angle
0 ... 90°

Sets of wearing parts
→ Page 22

Size
0008 ... 8000

Torque
8 ... 8000 Nm

General technical data							
Size		0008	0015 ... 0360	0480 ... 0960	1440 ... 1920	2880 ... 5760	8000
Pneumatic connection		G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Design		Scotch yoke system					
Mode of operation		Double-acting					
Mounting position		Any					
Position sensing		Without					
Cushioning		No cushioning					
Swivel angle	[°]	90					
End-position adjusting range at 0°							
DAPS ... R- ...	[°]	–	−1 ... +9			±5	
DAPS ... R- ... T4	[°]	–	−1 ... +9		–		
DAPS ... R- ... T6	[°]	–	−1 ... +9			±5	–
End-position adjusting range at 90°							
DAPS ... R- ...	[°]	–				85 ... 95	
DAPS ... R- ... T4	[°]	–					
DAPS ... R- ... T6	[°]	–				85 ... 95	–
Closing direction		Closes to the right					

Operating and environmental conditions							
Size		0008	0015 ... 0360	0480 ... 0960	1440 ... 1920	2880 ... 5760	8000
Nominal operating pressure	[bar]	5.6					
Operating pressure							
DAPS ... R- ...	[bar]	1 ... 8.4					1 ... 7
DAPS ... R- ... T4	[bar]	3 ... 8.4			–		
DAPS ... R- ... T6	[bar]	3 ... 8.4					–
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)					
Ambient temperature							
DAPS ... R- ...	[°C]	−20 ... +80					
DAPS ... R- ... T4	[°C]	–	−20 ... +150		–		
DAPS ... R- ... T6	[°C]	–	−50 ... +60				–
Corrosion resistance class CRC[1)]		3					
Process valve connection to standard		ISO 5211					
Valve connection conforms to standard		VDI/VDE 3845 (NAMUR)					
Safety integrity level (SIL)		Up to SIL 2 high demand mode					
		Up to SIL 2 low demand mode					

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Data sheet

ATEX		
ATEX category for gas		II 2G
Type of ignition protection for gas		Ex h IIC T6 ... T3 Gb X
ATEX category for dust		II 2D
Type of ignition protection for dust		Ex h IIIC T85°C ... T200°C Db X
Explosion-proof ambient temperature	Standard	–20°C ≤ Ta ≤ +60°C
	Version T4	–20°C <= Ta <= +150°C
	Version T6	–50°C <= Ta <= +60°C
CE marking (see declaration of conformity)		To EU Explosion Protection Directive (ATEX)

Air consumption [l/cycle 0°-nominal swivel angle-0°] at 6 bar

Size		Size	
DAPS-0008	0.24	DAPS-0720	32.2
DAPS-0015	0.56	DAPS-0960	42.35
DAPS-0030	1.05	DAPS-1440	67.9
DAPS-0060	2.1	DAPS-1920	90.3
DAPS-0106	3.85	DAPS-2880	140
DAPS-0180	8.40	DAPS-3840	179.2
DAPS-0240	11.55	DAPS-5760	266
DAPS-0360	16.1	DAPS-8000	350
DAPS-0480	22.4		

Weight [g]

Size		Size	
DAPS-0008	300	DAPS-0720	12000
DAPS-0015	750	DAPS-0960	17400
DAPS-0030	1000	DAPS-1440	23000
DAPS-0060	1600	DAPS-1920	32000
DAPS-0106	2500	DAPS-2880	56000
DAPS-0180	4600	DAPS-3840	49000
DAPS-0240	5400	DAPS-5760	86000
DAPS-0360	6500	DAPS-8000	106000
DAPS-0480	9600		

Materials

Quarter turn actuators			Material number
Housing		Wrought aluminium alloy	–
Cover		Wrought aluminium alloy	–
Shaft		High-alloy steel	1.4305
External screws		High-alloy steel	–
Seals	Standard	FPM, NBR, PUR	–
	T4	FPM, reinforced PTFE	–
	T6	FVMQ, reinforced PTFE	–
Note on materials	Standard	RoHS-compliant	–
	T4	Contains paint-wetting impairment substances, RoHS-compliant	–
	T6	Contains paint-wetting impairment substances, RoHS-compliant	–

Actual torque [Nm] as a function of operating pressure [bar] and swivel angle [°]

Size	Swivel angle	Operating pressure [bar]							
	[°]	2.5	3	4	5	5.6	6	7	8
DAPS-0008	0	3.1	3.8	5	6.3	7	7.5	8.8	10
	50	1.6	1.9	2.5	3.1	3.5	3.8	4.4	5
	90	3.1	3.8	5	6.3	7	7.5	8.8	10
DAPS-0015	0	6.7	8	10.7	13.4	15	16.1	18.8	21.4
	50	3.3	4	5.4	6.7	7.5	8	9.4	10.7
	90	5	6	8.1	10.1	11.3	12.1	14.1	16.1

Data sheet

Actual torque [Nm] as a function of operating pressure [bar] and swivel angle [°]

Size	Swivel angle	Operating pressure [bar]							
	[°]	2.5	3	4	5	5.6	6	7	8
DAPS-0030	0	13.4	16.1	21.4	26.8	30	32.1	37.5	42.9
	50	6.7	8	10.7	13.4	15	16.1	18.8	21.4
	90	10	12	16.1	20.1	22.5	24.1	28.1	32.1
DAPS-0060	0	26.8	32.1	42.9	53.6	60	64.3	75	85.7
	50	13.4	16.1	21.4	26.8	30	32.1	37.5	42.9
	90	20.1	24.1	32.1	40.2	45	48.2	56.3	64.3
DAPS-0106	0	47.5	57	76	95	106	114	133	151
	50	23.5	28	38	47	53	57	66	76
	90	35.5	43	57	71	80	86	100	114
DAPS-0180	0	80.4	96	128.4	160.8	180	193.2	225.6	264.8
	50	40.2	48	64.8	80.4	90	96	112.8	128.4
	90	60.6	72	97.2	121.2	135	145.2	169.2	193.2
DAPS-0240	0	107.1	128.6	171.4	214.3	240	257.1	300	342.9
	50	53.5	64.3	85.7	107.1	120	128.6	150	171.4
	90	80.3	96.4	128.6	160.7	180	192.9	225	257.1
DAPS-0360	0	160.8	192	256.8	321.6	360	386.4	451.2	513.6
	50	80.4	96	129.6	160.8	180	192	225.6	264.8
	90	121.2	144	194.4	242.4	270	290.4	338.4	386.4
DAPS-0480	0	214.3	257.1	342.9	428.6	480	514.3	600	685.7
	50	107.1	128.6	171.4	214.3	240	257.1	300	342.9
	90	160.7	192.9	257.1	321.4	360	358.7	450	514.3
DAPS-0720	0	321.4	384	513.6	643.2	720	772.8	902.4	1027.2
	50	160.7	192	259.2	321.6	360	384	451.2	529.6
	90	241	288.1	388.8	484.8	540	580.8	676.8	772.8
DAPS-0960	0	428.6	514.3	685.7	857.1	960	1028.6	1200	1371.4
	50	214.3	257.1	342.9	428.6	480	514.3	600	685.7
	90	321.4	385.7	514.3	642.9	720	771.4	900	1028.6
DAPS-1440	0	642.8	768	1027.2	1286.4	1440	1545.6	1804.8	2057.4
	50	321.4	384	518.4	643.2	720	768	902.4	1059.2
	90	482.1	576	777.6	969.9	1080	1161.6	1353.6	1545.6
DAPS-1920	0	857.1	1028.6	1371.4	1714.3	1920	2057.1	2400	2742.9
	50	428.6	514.3	685.8	857.1	960	1028.6	1200	1371.4
	90	642.9	771.4	1028.6	1285.7	1440	1542.9	1800	2057.1
DAPS-2880	0	1285	1542	2057	2571	2880	3085	3600	4114
	50	642	771	1028	1285	1440	1542	1800	2057
	90	856	1028	1371	1741	1920	2056	2400	2742
DAPS-3840	0	1714	2057	2743	3428	3840	4114	4800	5485
	50	857	1028	1371	1714	1920	2057	2400	2742
	90	1285	1543	2057	2571	2880	3085	3600	4114
DAPS-5760	0	2571	3085	4114	5142	5760	6171	7200	8228
	50	1285	1542	2057	2571	2880	3085	3600	4141
	90	1928	2313	3085	3856	4320	4628	5400	6171
DAPS-8000	0	3571.4	4285.7	5714.3	7142.9	8000	8571.4	10000	–
	50	1785.7	2142.9	2857.1	3571.4	4000	4285.7	5000	–
	90	2678.6	3214.3	4285.7	5357.1	6000	6428.6	7500	–

Torque for size at 5.6 bar and swivel angle 0°

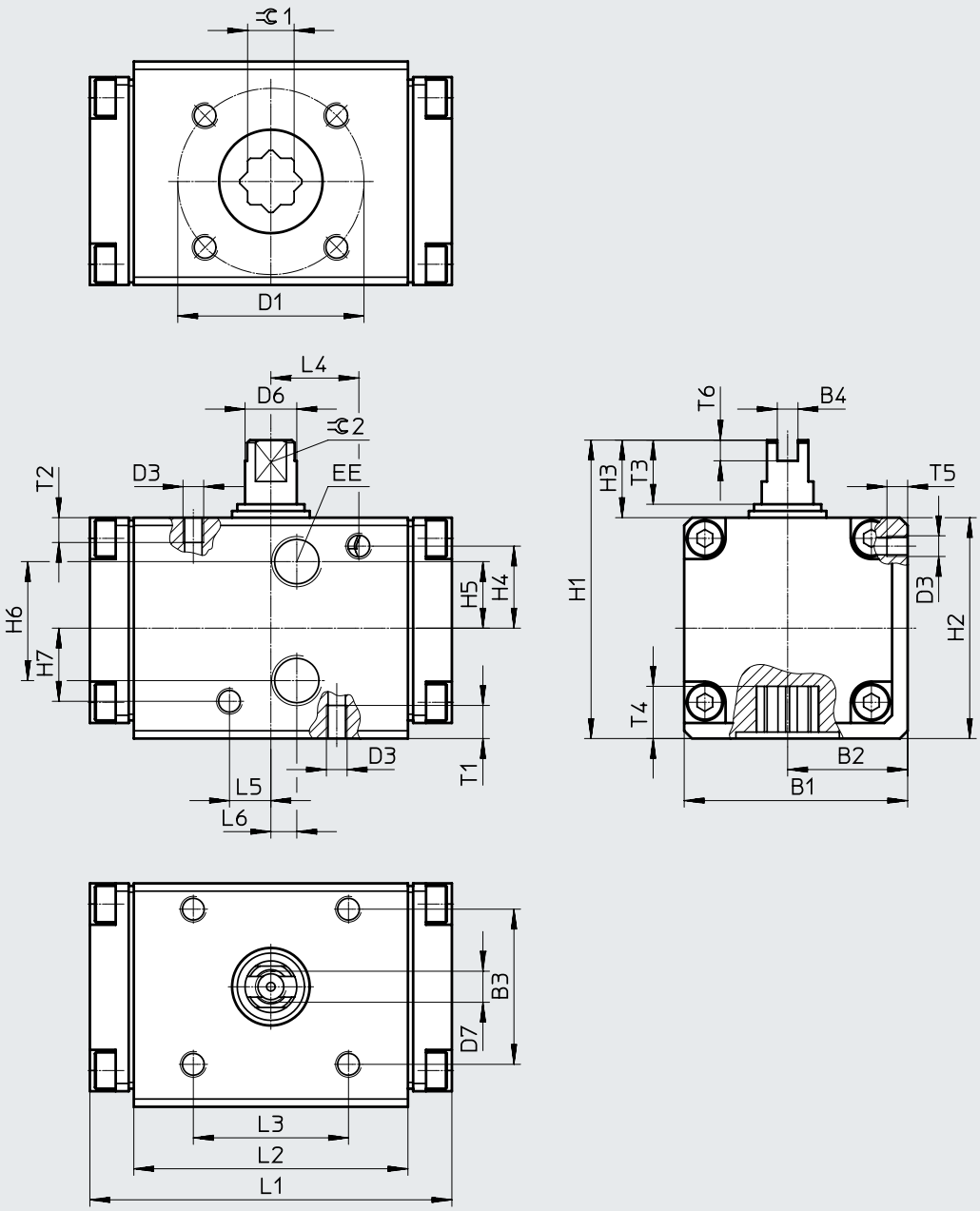
Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 0008



Data sheet

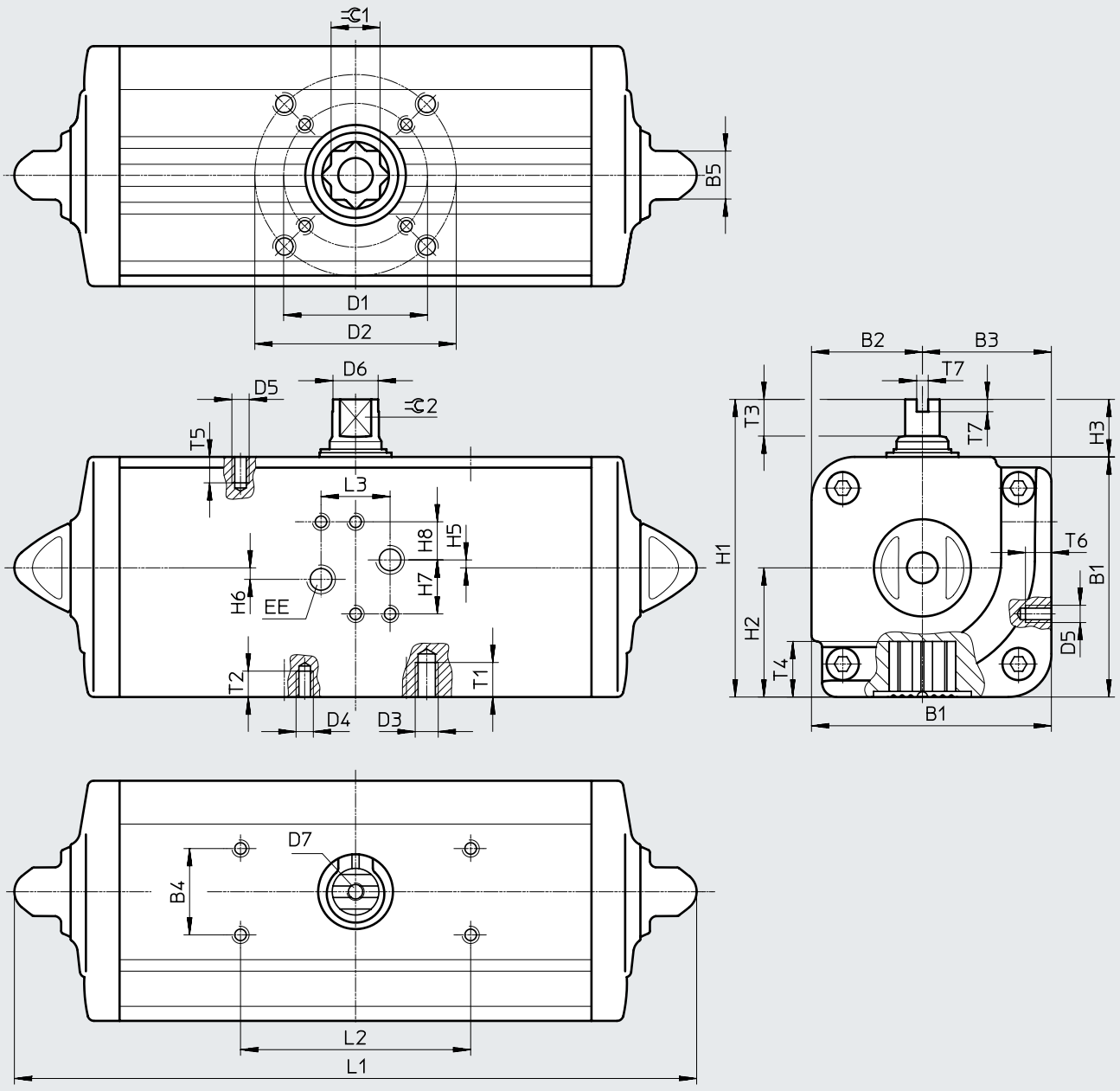
Size	B1	B2	B3	B4 +0.1	D1 ø	D3	D6 ø	D7	EE	H1	H2	H3	H4	H5	H6
DAPS-008-...	43.2	23.2	30	4	36	M5	10	M6	G1/8	57.7	42.7	15	14.5	11.5	23

Size	H7	L1	L2	L3	L4	L5	L6	T1	T2	T3	T4	T5	T6 +0.5	⌯ 1 H11	⌯ 2 h11
DAPS-008-...	15.5	70	53	30	17	8	5	8	6	12.4	10.1	5	4.5	9	8

Data sheet

Dimensions Download CAD data ➔ www.festo.com

DAPS-0015-090-...-T4



Data sheet

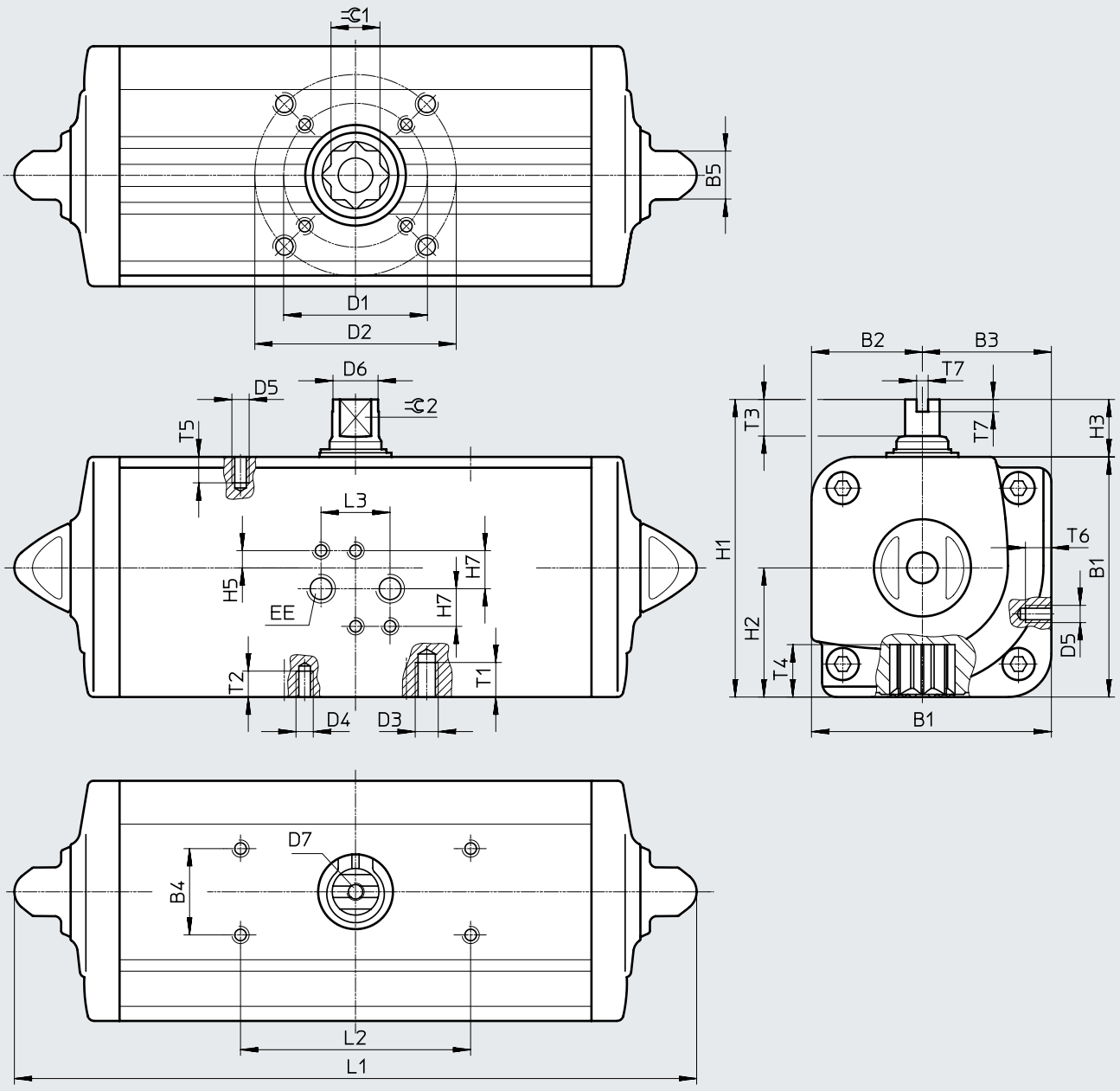
Size	B1	B2	B3	B4	B5	D1 ø ±0.1	D2 ø ±0.1	D3	D4	D5	D6 ø	D7	EE	H1	H2	H3
DAPS-0015-...-F03	52.2	24.2	28	30	13	36	–	–	M5	M5	9.2	M6	G1/8	72.2	28	20
DAPS-0015-...-F04						42										
DAPS-0030-...-F0305	59.2	27.7	31.5		13	36	50	M6	M5		10.9			79.2	31.5	20
DAPS-0030-...-F04						42	–	–								
DAPS-0060-...-F04	70.4	32.7	37.7		13	42	–	–	M5		14.5			90.4	37.7	20
DAPS-0060-...-F0507						50	70	M8	M6							
DAPS-0106-...-F0507	83.3	38.5	44.8		17	50	70	M8	M6		16.2			103.3	44.8	20
DAPS-0180-...-F0710	107.5	51	56.5		22	70	102	M10	M8		20.2			137.5	56.5	30
DAPS-0240-...-F0710	111.1	51	60.1		22	70	102	M10	M8		22.5			141.1	60.1	30
DAPS-0360-...-F0710	118	56	62		22	70	102	M10	M8		25.5			148	62	30

Size	H5	H6	H7	H8	L1 ±2	L2	L3	T1	T2	T3	T4	T5	T6	T7	⌀ 1	⌀ 2
DAPS-0015-...-F03	0.8	3.2	18	14	159	80	24	–	8	10	13.2	6	7	4	11	8
DAPS-0015-...-F04																
DAPS-0030-...-F0305	0.8	3.2			174			9	8	10	13.2				11	9
DAPS-0030-...-F04								–								
DAPS-0060-...-F04	–	4			198			–	8	13	16.5				14	10
DAPS-0060-...-F0507								12	9							
DAPS-0106-...-F0507	–	4			237.1			12	9	13	19.3				17	12
DAPS-0180-...-F0710	–	4			289.9			15	12	16	24.8				22	15
DAPS-0240-...-F0710	–	4			313.6			15	12	17	24.8				22	15
DAPS-0360-...-F0710	–	4			339.3			15	12	19	24.3				22	19

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 0015 ... 1920



Data sheet

Size	B1	B2	B3	B4	B5	D1 Ø ±0.1	D2 Ø ±0.1	D3	D4	D5	D6 Ø	D7	EE	H1	H2
DAPS-0015-...-F03	52.2	24.2	28	30	13	36	–	–	M5	M5	9.2	M6	G1/8	72.2	28
DAPS-0015-...-F04						42			M5						
DAPS-0030-...-F0305	59.2	27.7	31.5		13	36	50	M6	M5		10.9			79.2	31.5
DAPS-0030-...-F04						42	–	–	M5						
DAPS-0060-...-F04	70.4	32.7	37.7		13	42	–	–	M5		14.5			90.4	37.7
DAPS-0060-...-F0507						50	70	M8	M6						
DAPS-0106-...-F0507	83.3	38.5	44.8		17	50	70	M8	M6		16.2			103.3	44.8
DAPS-0180-...-F0710	107.5	51	56.5		22	70	102	M10	M8		20.2			137.5	56.5
DAPS-0240-...-F0710	111.1	51	60.1		22	70	102	M10	M8		22.5			141.1	60.1
DAPS-0360-...-F0710	118	56	62		22	70	102	M10	M8		25.5			148	62

Size	H3	H5	H7	L1 ±2	L2	L3	T1	T2	T3	T4	T5	T6	T7	⊂ 1	⊂ 2
DAPS-0015-...-F03	20	28.8	32	159	80	24	–	8	10	13.2	6	7	4	11	8
DAPS-0015-...-F04								8							
DAPS-0030-...-F0305	20	32.3		174			9	8	10	13.2				11	9
DAPS-0030-...-F04							–	8							
DAPS-0060-...-F04	20	37.7		198			–	8	13	16.5				14	10
DAPS-0060-...-F0507							12	9							
DAPS-0106-...-F0507	20	44.8		237.1			12	9	13	19.3				17	12
DAPS-0180-...-F0710	30	56.5		289.9			15	12	16	24.8				22	15
DAPS-0240-...-F0710	30	60.1		313.6			15	12	17	24.8				22	15
DAPS-0360-...-F0710	30	62		339.3			15	12	19	24.3				22	19

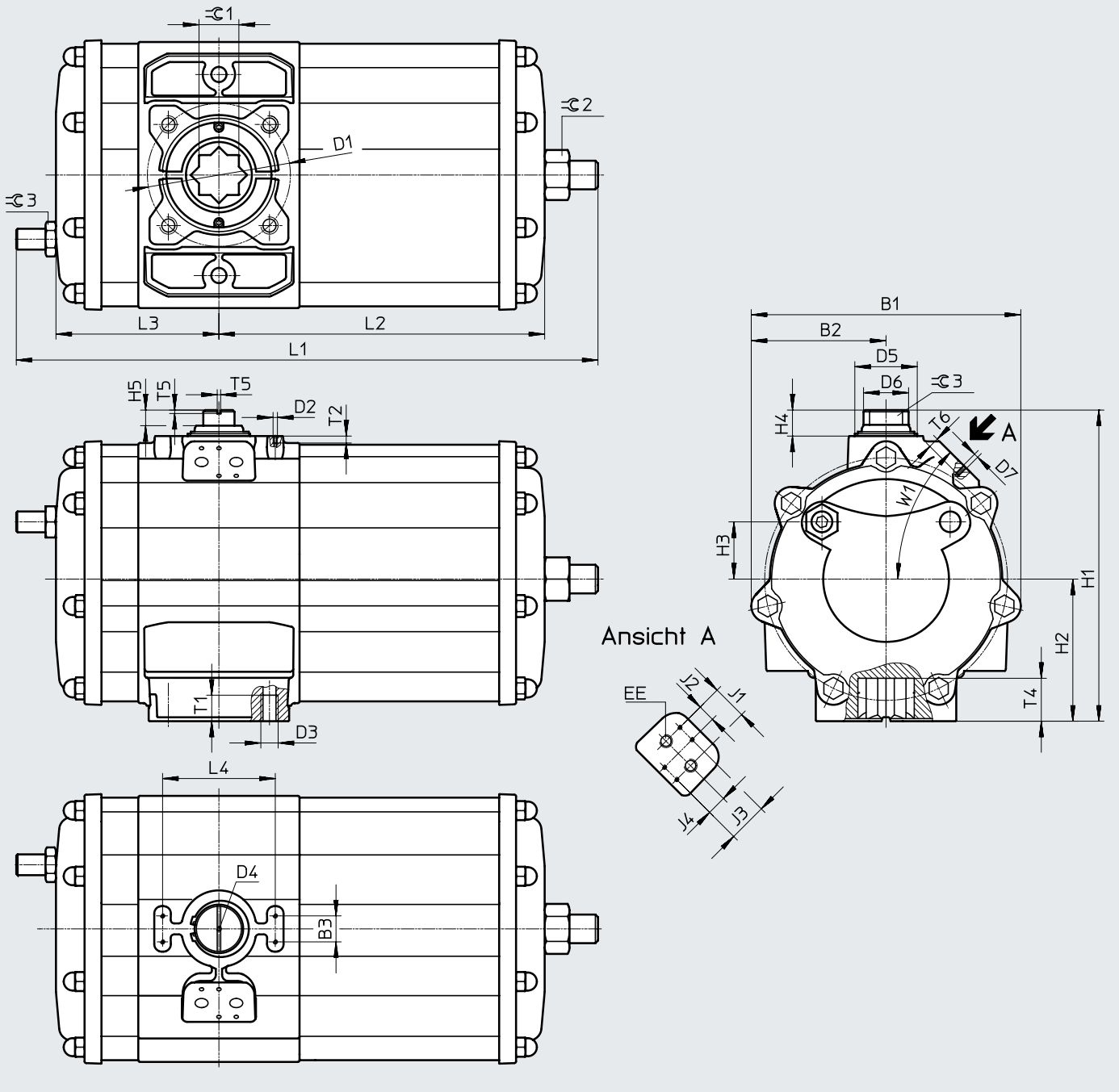
Size	B1	B2	B3	B4	B5	D1 Ø ±0.1	D2 Ø ±0.1	D3	D4	D5	D6 Ø	D7	EE	H1	H2
DAPS-0480-...-F1012	134.9	62	72.9	30	27	102	125	M12	M10	M5	29	M6	G1/4	164.9	72.9
DAPS-0720-...-F1012	148	69.5	78.5		27	102	125	M12	M10		31.8			178	78.5
DAPS-0960-...-F12	168	74.5	93.5		27	102	125	M12	M10		36.5			198	93.5
DAPS-0960-...-F14					27	140	–	–	M16						
DAPS-1440-...-F12	186	84.5	101.5		36	125	–	–	M12		41			216	101.5
DAPS-1440-...-F14					36	140			M16						
DAPS-1920-...-F14	207.7	93	114.7		36	140	–	–	M16		46			237.7	114.7
DAPS-1920-...-F1216					36	125	165	M20	M12						

Size	H3	H5	H7	L1	L2	L3	T1	T2	T3	T4	T5	T6	T7	⊂ 1	⊂ 2
DAPS-0480-...-F1012	30	57.4	32	387.7	80	24	18	15	19	29.5	6	7	4	27	19
DAPS-0720-...-F1012		61.5		433			18	15	19.5	29.5				27	22
DAPS-0960-...-F12		78		479.4			18	15	19.5	38.5				36	24
DAPS-0960-...-F14							–	24							
DAPS-1440-...-F12		86.5		567			–	18	19.5	38.5				36	27
DAPS-1440-...-F14								24							
DAPS-1920-...-F14		99.2		601			–	24	18.5	48.5				46	32
DAPS-1920-...-F1216							30	18							

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 2880



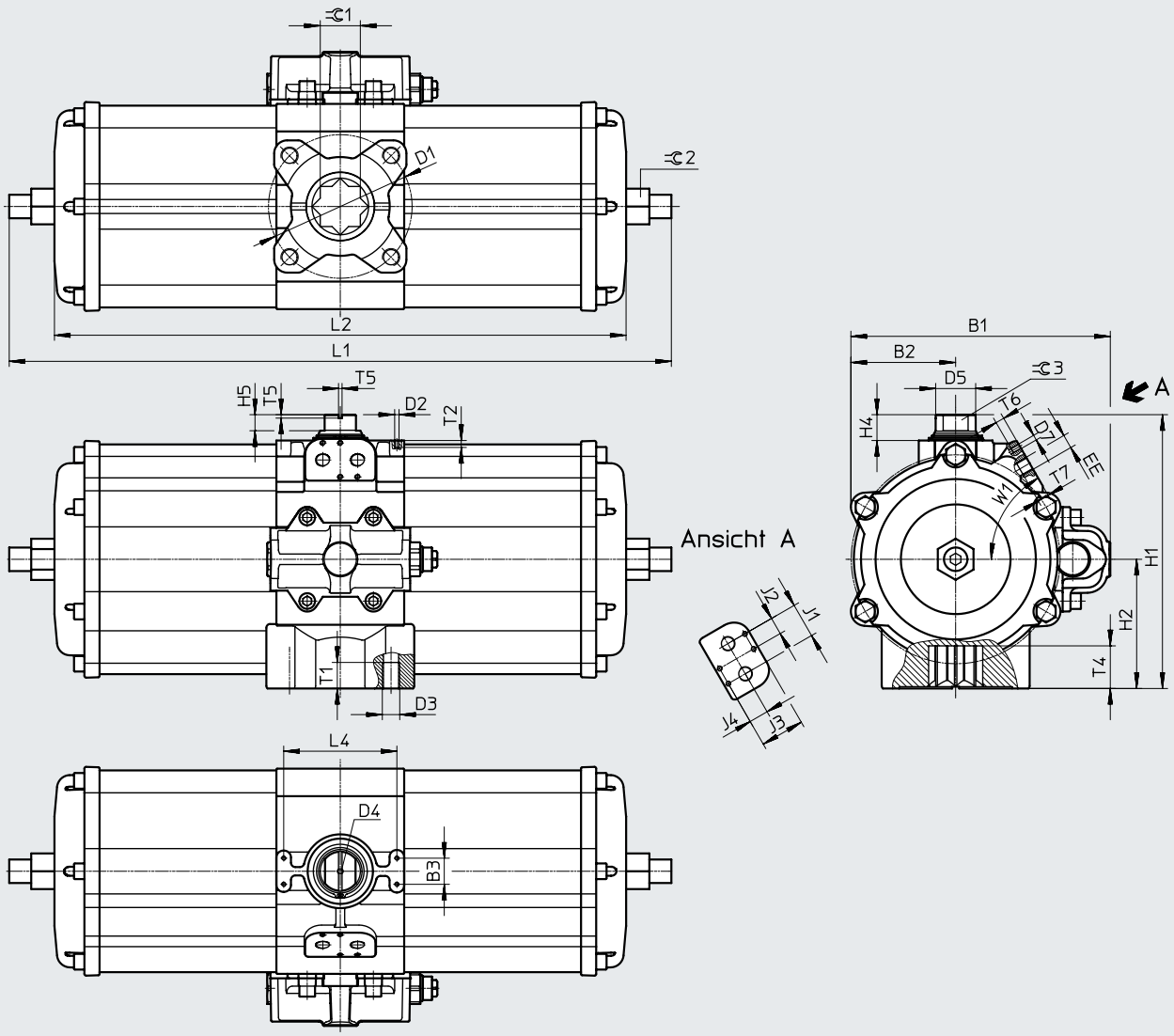
Size	B1	B2	B3	D1 ø	D2	D3	D4	D5 ø	D6 ø	D7	EE	H1	H2	H3	H4	H5	J1
DAPS-2880-...	311	155	30	165	M5	M20	M6	72	52	M6	G3/8	359	164	66	30	18	40

Size	J2	J3	J4	L1 ±2	L2	L3	L4	T1	T2	T4 ±0.8	T5	T6	W1	⌀1	⌀2	⌀3
DAPS-2880-...	20	45	22.5	667	372	188	130	30	8	49.5	4	10	45°	46	50	36

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 3840



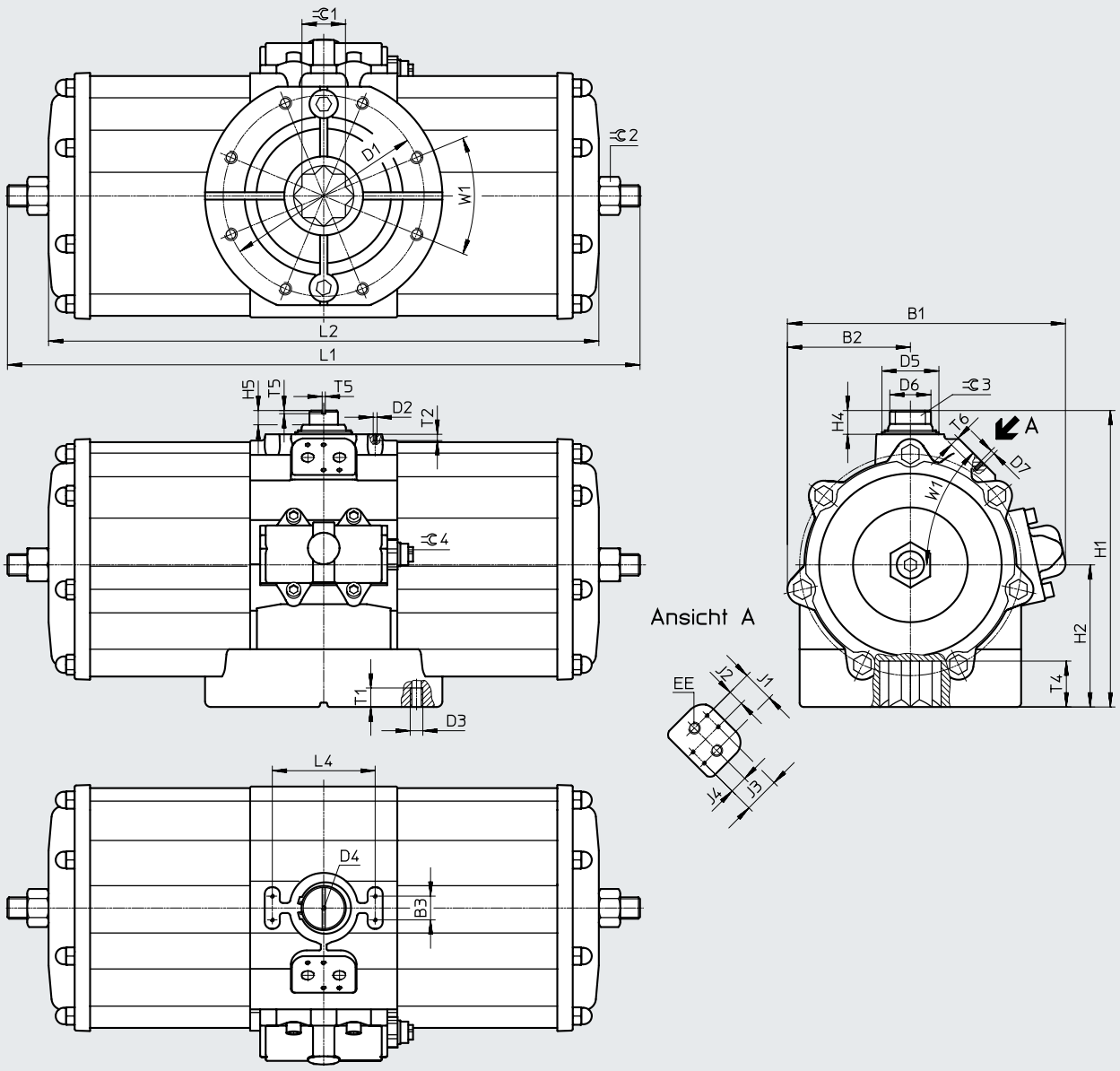
Size	B1	B2	B3	D1 ø	D2	D3	D4	D5 ø	D7	EE	H1	H2	H4	H5	J1	J2
DAPS-3840-...	298	120	30	165	M5	M20	M6	46	M6	G3/8	314	148.5	30	18.5	40	20

Size	J3	J4	L1 ±2	L2	L4	T1	T2	T4 ±1	T5	T6	T7	W1	=C 1	=C 2	=C 3
DAPS-3840-...	45	22.5	765	614	130	30	8	49	4	10	13	60°	46	41	32

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 5760



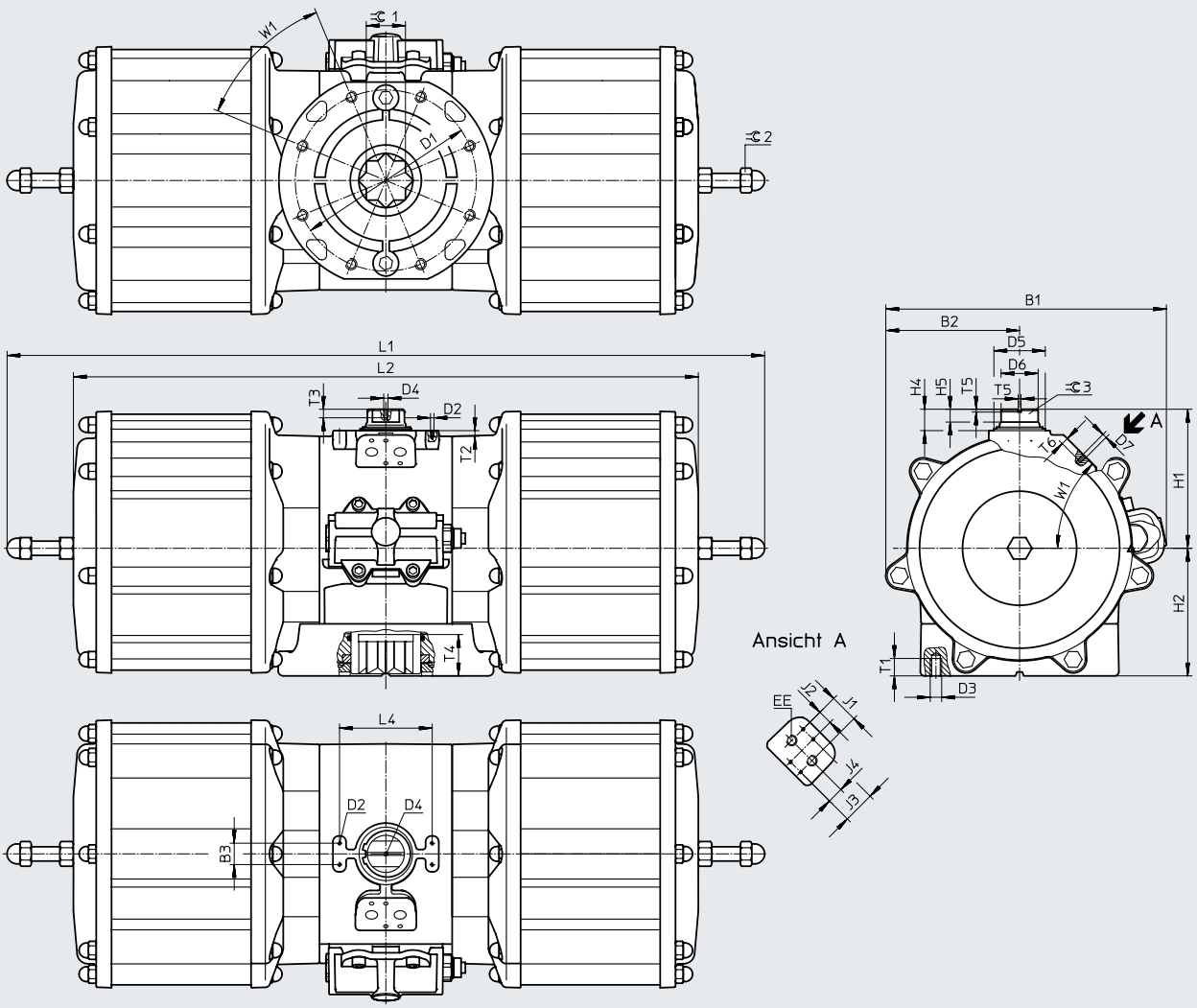
Size	B1	B2	B3	D1 ø	D2	D3	D4	D5 ø	D6	D7	EE	H1	H2	H4	H5	J1
DAPS-5760-...	361	155	30	254	M5	M16	M6	72	52	M6	G3/8	374	179	30	18	40

Size	J2	J3	J4	L1 ±2	L2	L4	T1	T2	T4 ±0.8	T5	T6	W1	⌯1	⌯2	⌯3	⌯4
DAPS-5760-...	20	45	22.5	885	744	130	24	8	58	4	10	45°	55	50	36	15

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 8000



Size	B1	B2	B3	D1 ⌀	D2	D3	D4	D5 ⌀	D6 ⌀	D7	EE	H1	H2	H4	H5	J1
DAPS-8000-...	394	188	30	254	M5	M16	M6	72	52	M6	G3/8	195	179	30	18	40

Size	J2	J3	J4	L1	L2	L4	T1	T2	T3	T4	T5	T6	W1	⌀1	⌀2	⌀3
DAPS-8000-...	20	45	22.5	1044	877	130	24	8	12	58	4	10	45°	55	30	36

Data sheet

Ordering data – Actuators

Part no.	Type	Part no.	Type
Size 0008		**Size 0720**	
549666	**DAPS-0008-090-R-F03**	**549667**	**DAPS-0720-090-R-F1012**
Size 0015		**Size 0960**	
533417	**DAPS-0015-090-R-F03**	**533425**	**DAPS-0960-090-R-F1012**
533475	**DAPS-0015-090-R-F04**	**533478**	**DAPS-0960-090-R-F14**
Size 0030		**Size 1440**	
533418	**DAPS-0030-090-R-F0305**	**549668**	**DAPS-1440-090-R-F12**
533476	**DAPS-0030-090-R-F04**	**549669**	**DAPS-1440-090-R-F14**
Size 0060		**Size 1920**	
533419	**DAPS-0060-090-R-F04**	**533426**	**DAPS-1920-090-R-F14**
533477	**DAPS-0060-090-R-F0507**	**533479**	**DAPS-1920-090-R-F1216**
Size 0106		**Size 2880**	
533420	**DAPS-0106-090-R-F0507**	**549670**	**DAPS-2880-090-R-F16**
Size 0180		**Size 3840**	
533421	**DAPS-0180-090-R-F0710**	**549671**	**DAPS-3840-090-R-F16**
Size 0240		**Size 5760**	
533422	**DAPS-0240-090-R-F0710**	**549672**	**DAPS-5760-090-F25**
Size 0360		**Size 8000**	
533423	**DAPS-0360-090-R-F0710**	**560855**	**DAPS-8000-090-R-F25**
Size 0480			
533424	**DAPS-0480-090-R-F1012**		

Ordering data – Sets of wearing parts

Part no.	Type	Part no.	Type
Size 0015		**Size 0240**	
397470	**DAPS-0015**	**397475**	**DAPS-0240/S0120**
Size 0030		**Size 0360**	
397471	**DAPS-0030/S0015**	**397476**	**DAPS-0360/S0180**
Size 0060		**Size 0480**	
397472	**DAPS-0060/S0030**	**397477**	**DAPS-0480/S0240**
Size 0106		**Size 0960**	
397473	**DAPS-0106/S0053**	**397478**	**DAPS-0960/S0480**
Size 0180		**Size 1920**	
397474	**DAPS-0180/S0090**	**397479**	**DAPS-1920/S0960**

Data sheet

Ordering data – Actuators for variant T4

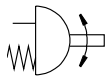
Part no.	Type
Size 0015	
8030599	**DAPS-0015-090-R-F03-T4**
8030600	**DAPS-0015-090-R-F04-T4**
Size 0030	
8030601	**DAPS-0030-090-R-F0305-T4**
8030602	**DAPS-0030-090-R-F04-T4**
Size 0060	
8030603	**DAPS-0060-090-R-F04-T4**
8030604	**DAPS-0060-090-R-F0507-T4**
Size 0106	
8030605	**DAPS-0106-090-R-F0507-T4**
Size 0180	
8030606	**DAPS-0180-090-R-F0710-T4**
Size 0240	
8030607	**DAPS-0240-090-R-F0710-T4**
Size 0360	
8030608	**DAPS-0360-090-R-F0710-T4**
Size 0480	
8030609	**DAPS-0480-090-R-F1012-T4**
Size 0720	
8030610	**DAPS-0720-090-R-F1012-T4**
Size 0960	
8030611	**DAPS-0960-090-R-F1012-T4**
8030612	**DAPS-0960-090-R-F14-T4**

Ordering data – Actuators for variant T6

Part no.	Type
Size 0015	
553170	**DAPS-0015-090-R-F03-T6**
553171	**DAPS-0015-090-R-F04-T6**
Size 0030	
553172	**DAPS-0030-090-R-F0305-T6**
553173	**DAPS-0030-090-R-F04-T6**
Size 0060	
553174	**DAPS-0060-090-R-F04-T6**
553175	**DAPS-0060-090-R-F0507-T6**
Size 0106	
553176	**DAPS-0106-090-R-F0507-T6**
Size 0180	
553177	**DAPS-0180-090-R-F0710-T6**
Size 0240	
553178	**DAPS-0240-090-R-F0710-T6**
Size 0360	
553179	**DAPS-0360-090-R-F0710-T6**
Size 0480	
553180	**DAPS-0480-090-R-F1012-T6**
Size 0720	
553181	**DAPS-0720-090-R-F1012-T6**
Size 0960	
553182	**DAPS-0960-090-R-F12-T6**
553183	**DAPS-0960-090-R-F14-T6**
Size 1440	
553184	**DAPS-1440-090-R-F12-T6**
553185	**DAPS-1440-090-R-F14-T6**
Size 1920	
553186	**DAPS-1920-090-R-F14-T6**
553187	**DAPS-1920-090-R-F1216-T6**
Size 2880	
553188	**DAPS-2880-090-R-F16-T6**
Size 3840	
553189	**DAPS-3840-090-R-F16-T6**
Size 5760	
553190	**DAPS-5760-090-R-F25-T6**

Data sheet

Function

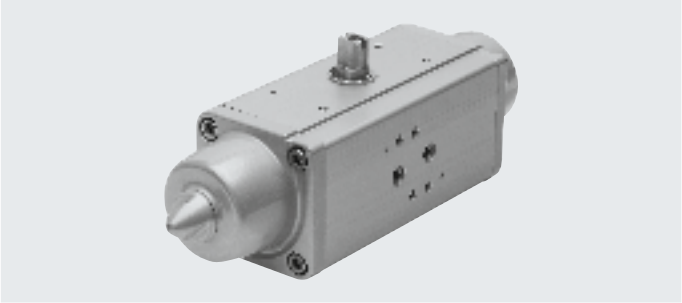


Swivel angle
0 ... 90°

Sets of wearing parts
➔ Page 39

Size
0015 ... 4000

Torque
15 ... 4000 Nm



General technical data					
Size		0015 ... 0180	0240 ... 0960	1440 ... 2880	4000
Pneumatic connection		G1/8	G1/4	G3/8	G3/8
Design		Scotch yoke system			
Mode of operation		Single-acting			
Mounting position		Any			
Position sensing		Without			
Cushioning		No cushioning			
Swivel angle	[°]	90			
End-position adjusting range at 0°					
DAPS ... RS- ...	[°]	One adjustable end position, –1 ... +9		±5	
DAPS ... RS- ... T4	[°]			–	
DAPS ... RS- ... T6	[°]			±5	–
End-position adjusting range at 90°					
DAPS ... RS- ...	[°]	One adjustable end position, 81 ... +91		85 ... 95	
DAPS ... RS- ... T4	[°]			–	
DAPS ... RS- ... T6	[°]			85 ... 95	–
Note on the end-position adjusting range		One optionally adjustable end position			
Closing direction		Closes to the right			

Operating and environmental conditions				
Size		0015 ... 0480	0720 ... 2880	4000
Nominal operating pressure	[bar]	5.6		
Operating pressure[1]				
DAPS ... RS1- ...	[bar]	2.8 ... 8.4		
DAPS ... RS2- ...	[bar]	3.5 ... 8.4		
DAPS ... RS3- ...	[bar]	4.2 ... 8.4		
DAPS ... RS4- ...	[bar]	5.6 ... 8.4		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]		
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)		
Ambient temperature				
DAPS ... RS- ...	[°C]	–20 ... +80		
DAPS ... RS- ... T4	[°C]	–20 ... +150	–	
DAPS ... RS- ... T6	[°C]	–50 ... +60		–
Corrosion resistance class CRC[2]		3		
Process valve connection to standard		ISO 5211		
Valve connection conforms to standard		VDI/VDE 3845 (NAMUR)		
Safety integrity level (SIL)		Up to SIL 2 high demand mode		
		Up to SIL 2 low demand mode		

1) Minimum operating pressures vary for single-acting quarter turn actuators depending on spring quantity

2) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Data sheet

ATEX		
ATEX category for gas		II 2G
Type of ignition protection for gas		Ex h IIC T6 ... T3 Gb X
ATEX category for dust		II 2D
Type of ignition protection for dust		Ex h IIIC T85°C ... T200°C Db X
Explosion-proof ambient temperature	Standard	−20°C ≤ Ta ≤ +60°C
	Version T4	−20°C <= Ta <= +150°C
	Version T6	−50°C <= Ta <= +60°C
CE marking (see declaration of conformity)		To EU Explosion Protection Directive (ATEX)

Air consumption [l/cycle 0°-nominal swivel angle-0°] at 6 bar Size	
DAPS-0015	0.63
DAPS-0030	1.19
DAPS-0053	2.1
DAPS-0090	3.85
DAPS-0120	5.6
DAPS-0180	7
DAPS-0240	10.5
DAPS-0360	14
DAPS-0480	19.6
DAPS-0720	29.4
DAPS-0960	41.3
DAPS-1440	77
DAPS-1920	91.7
DAPS-2880	147
DAPS-4000	203.7

Weight [g] Size	
DAPS-0015	1200
DAPS-0030	1950
DAPS-0053	3000
DAPS-0090	5900
DAPS-0120	6800
DAPS-0180	8900
DAPS-0240	11800
DAPS-0360	16500
DAPS-0480	22700
DAPS-0720	33000
DAPS-0960	42000
DAPS-1440	74000
DAPS-1920	67000
DAPS-2880	117000
DAPS-4000	183000

Materials			
Quarter turn actuators			Material number
Housing		Wrought aluminium alloy	–
Cover		Wrought aluminium alloy	–
Shaft		High-alloy steel	1.4305
External screws		High-alloy steel	–
Seals	Standard	FPM, NBR, PUR	–
	T4	FPM, reinforced PTFE	–
	T6	FVMQ, reinforced PTFE	–
Note on materials	Standard	RoHS-compliant	–
	T4	Contains paint-wetting impairment substances, RoHS-compliant	–
	T6	Contains paint-wetting impairment substances, RoHS-compliant	–

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				2.5			2.8			3			3.5			4.2		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0015																		
1	5.0	3.7	7.5	6.2	2.9	3.7	7.5	3.7	5	8.4	4.2	5.9	10.6	5.6	8.1	13.8	7.4	11.3
2	6.3	4.7	9.4	–			–			7.2	3.3	4	9.4	4.7	6.3	12.6	6.5	9.4
3	7.5	5.6	11.3	–			–			–			8.2	3.7	4.4	11.3	5.6	7.5
4	10.0	7.5	15	–			–			–			–			–		
DAPS-0030																		
1	10.0	7.5	15	12.3	5.9	7.3	15	7.5	10	16.8	8.6	11.8	21.3	11.3	16.3	27.5	15	22.5
2	12.5	9.4	18.8	–			–			14.3	6.7	8	18.8	9.4	12.5	25.1	13.2	18.8
3	15.0	11.3	22.5	–			–			–			16.3	7.5	8.8	22.5	11.3	15
4	20.0	15	30	–			–			–			–			–		
DAPS-0053																		
1	17.5	13	26.5	21.8	10.2	12.8	26.5	13	17.5	29.6	14.9	20.6	37.5	19.5	28.5	48.5	26	39.5
2	22	16.5	33	–			–			25.1	11.8	14.1	33	16.5	22	44	23.1	33
3	26	19.5	40	–			–			–			29	13	15	40	19.5	26
4	35	26	53	–			–			–			–			–		
DAPS-0090																		
1	30	22.5	45	37	17.7	22	45	22.5	30	50.4	25.7	35.4	63.8	33.8	48.8	82.5	45	67.5
2	37.5	28.1	56.3	–			–			42.9	20.1	24.1	56.3	28.1	37.5	75.1	39.4	56.3
3	45	33.9	67.5	–			–			–			48.8	22.6	26.3	67.5	33.9	45
4	60	45	90	–			–			–			–			–		
DAPS-0120																		
1	40	30	60	49.3	23.6	29.3	60	30	40	67.1	34.3	47.1	85	45	65	110	60	90
2	50	37.5	75	–			–			57.1	26.8	32.1	75	37.5	50	100	52.5	75
3	60	45	90	–			–			–			65	30	35	90	45	60
4	80	60	120	–			–			–			–			–		
DAPS-0180																		
1	60	45	90	73.9	35.4	43.9	90	45	60	100.7	51.4	70.7	127.5	67.5	97.5	165	90	135
2	75	56.3	112.5	–			–			85.7	40.2	48.2	112.5	56.3	75	150	78.8	112.5
3	90	67.5	135	–			–			–			97.5	45	52.5	135	67.5	90
4	120	90	180	–			–			–			–			–		
DAPS-0240																		
1	80	60	120	98.6	47.1	58.6	120	60	80	134.3	68.6	94.3	170	90	130	220	120	180
2	100	75	150	–			–			114.3	53.6	64.3	150	75	100	200	105	150
3	120	90	180	–			–			–			130	60	70	180	90	120
4	160	120	240	–			–			–			–			–		
DAPS-0360																		
1	120	90	180	147.9	70.7	87.9	180	90	120	201.4	102.9	141.1	255	135	195	330	180	270
2	150	112.5	225	–			–			171.4	80.4	96.4	225	112.5	150	300	157.5	225
3	180	135	270	–			–			–			195	90	105	270	135	180
4	240	180	360	–			–			–			–			–		

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Operating pressure [bar]														
	5			5.6			6			7			8		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0015															
1	–			–			–			–			–		
2	16.1	8.7	13	18.8	10.3	15.7	–			–			–		
3	14.9	7.7	11.1	17.6	9.3	13.8	19.4	10.4	15.6	23.8	13.1	20	28.3	15.7	24.5
4	12.3	5.9	7.3	15	7.5	10	16.8	8.6	11.8	21.3	11.3	16.3	25.7	13.9	20.7
DAPS-0030															
1	–			–			–			–			–		
2	32.2	17.5	25.9	37.6	20.7	31.3	–			–			–		
3	29.6	15.6	22.1	35	18.8	27.5	38.6	21	31.1	47.5	26.4	40	56.4	31.7	48.9
4	24.6	11.8	14.6	30	15	20	33.6	17.1	23.6	42.5	22.5	32.5	51.4	27.9	41.4
DAPS-0053															
1	–			–			–			–			–		
2	56.6	30.6	45.6	66	36.3	55	–			–			–		
3	52.6	26.9	38.6	62	32.5	48	68.3	36.2	54.3	84	45.5	70	99.7	54.8	85.7
4	43.6	20.4	25.6	53	26	35	59.3	29.7	41.3	75	39	57	90	48.3	72.7
DAPS-0090															
1	–			–			–			–			–		
2	96.5	52.2	77.7	112.6	61.9	93.8	–			–			–		
3	88.9	46.8	66.4	105	56.5	82.5	115.7	63	93.2	142.5	79.1	120	169.3	95.2	146.8
4	73.9	35.4	43.9	90	45	60	100.7	51.4	70.7	127.5	67.5	97.5	154.3	83.6	124.3
DAPS-0120															
1	–			–			–			–			–		
2	128.6	69.6	103.6	150	82.5	125	–			–			–		
3	118.6	62.1	88.6	140	75	110	154.3	83.6	124.3	190	105	160	225.7	126.4	195.7
4	98.6	47.1	58.6	120	60	80	134.4	68.6	94.3	170	90	130	205.7	111.4	165.7
DAPS-0180															
1	–			–			–			–			–		
2	192.9	104.5	155.4	225	123.8	187.5	–			–			–		
3	177.9	93.2	132.9	210	112.5	165	231.4	125.4	186.4	285	157.5	240	338.6	189.6	293.6
4	147.9	707.7	87.9	180	90	120	201.4	102.9	141.4	255	135	195	308.6	167.6	284.6
DAPS-0240															
1	–			–			–			–			–		
2	257.1	139.3	207.1	300	165	250	–			–			–		
3	237.1	124.3	177.1	280	150	220	308.6	167.1	248.6	380	210	320	451.4	252.9	391.4
4	197.1	94.3	117.1	240	120	160	268.6	137.1	188.6	340	180	260	411.4	222.9	331.4
DAPS-0360															
1	–			–			–			–			–		
2	385.7	208.9	310.7	450	247.5	375	–			–			–		
3	355.7	186.4	265.7	420	225	330	462.9	250.7	372.9	570	315	480	677.1	379.3	587.1
4	295.7	141.4	175.7	360	180	240	402.9	205.7	282.9	510	270	390	617.1	334.3	497.1

Torque for size at 5.6 bar and swivel angle 0°

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				2.5			2.8			3			3.5			4.2		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0480																		
1	160	120	240	197.1	94.3	117.1	240	120	160	268.6	137.1	188.6	340	180	260	440	240	360
2	200	150	300	–			–			228.6	107.1	128.6	300	150	200	400	210	300
3	240	180	360	–			–			–			260	120	140	360	180	240
4	320	240	480	–			–			–			–			–		
DAPS-0720																		
1	240	180	360	295.7	141.4	175.7	360	180	240	402.9	205.7	282.9	510	270	390	660	360	540
2	300	225	450	–			–			342.9	160.7	192.9	450	225	300	600	315	450
3	360	270	540	–			–			–			390	180	210	540	270	360
4	480	360	720	–			–			–			–			–		
DAPS-0960																		
1	320	240	480	394.3	188.6	234.3	480	240	320	537.1	274.3	377.1	680	360	520	880	480	720
2	400	300	600	–			–			457.1	214.3	257.1	600	300	400	800	420	600
3	480	360	720	–			–			–			520	240	280	720	360	480
4	640	480	960	–			–			–			–			–		
DAPS-1440																		
1	480	360	720	591	282	351	720	360	480	805	411	565	1020	540	780	1320	720	1080
2	600	450	900	–			–			685	321	385	900	450	600	1200	630	900
3	720	540	1080	–			–			–			780	360	420	1080	540	720
4	960	720	1440	–			–			–			–			–		
DAPS-1920																		
1	640	480	960	778	377	468	960	480	640	1074	548	754	1360	720	1040	1760	960	1440
2	800	600	1200	–			–			914	428	514	1200	600	800	1600	840	1200
3	960	720	1440	–			–			–			1040	480	560	1440	720	960
4	1280	960	1920	–			–			–			–			–		
DAPS-2880																		
1	960	720	1440	1183	566	703	1440	720	960	1611	823	1131	2040	1080	1560	2640	1440	2160
2	1200	900	1800	–			–			1370	643	771	1800	900	1200	2400	1260	1800
3	1440	1080	2160	–			–			–			1560	720	840	2160	1080	1440
4	1920	1440	2880	–			–			–			–			–		
DAPS-4000																		
1	1333	1000	2000	1524	714	857	2000	1000	1333	2238	1143	1571	2833	1500	2166	3666	2000	2999
2	1666	1250	2500	–			–			1905	893	1071	2500	1250	1666	3333	1750	2499
3	1999	1500	3000	–			–			–			2167	1000	1166	3000	1500	1999
4	2666	2000	4000	–			–			–			–			–		

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Operating pressure [bar]														
	5			5.6			6			7			8		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0480															
1	–			–			–			–			–		
2	514.3	278.6	414.3	600	330	500	–			–			–		
3	474.3	248.6	354.3	560	300	440	617.1	334.3	497.1	760	420	640	902.9	505.7	782.9
4	394.3	118.6	234.3	480	240	320	537.1	274.3	377.1	680	360	520	822.9	445.7	662.9
DAPS-0720															
1	–			–			–			–			–		
2	771.4	417.9	621.4	900	495	750	–			–			–		
3	711.4	372.9	531.4	840	450	660	925.7	501.4	745.7	1140	630	960	1354	758.6	1174
4	591.4	282.9	351.4	720	360	480	805.7	411.4	565.7	1020	540	780	1234	668.6	994.3
DAPS-0960															
1	–			–			–			–			–		
2	1028.6	557.1	828.6	1200	660	1000	–			–			–		
3	948.6	497.1	708.6	1120	600	880	1234.3	668.6	994.3	1520	840	1280	1805.7	1011.4	1565.7
4	788.6	377.1	468.6	960	480	640	1074.3	548.6	754.3	1360	720	1040	1645.7	891.4	1325.7
DAPS-1440															
1	–			–			–			–			–		
2	1542	835	1242	1800	990	1500	–			–			–		
3	1422	745	1062	1680	900	1320	1851	1002	1491	2280	1260	1920	2708	1517	2348
4	1182	565	702	1440	720	960	1611	822	1131	2040	1080	1560	2468	1337	1988
DAPS-1920															
1	–			–			–			–			–		
2	2057	1114	1657	2400	1320	2000	–			–			–		
3	1897	994	1417	2240	1200	1760	2468	1337	1988	3040	1680	2560	3611	2022	3131
4	1577	754	937	1920	960	1280	2148	1097	1508	2720	1440	2080	3291	1782	2651
DAPS-2880															
1	–			–			–			–			–		
2	3085	1671	2485	3600	1980	3000	–			–			–		
3	2845	1491	2125	3360	1800	2640	3702	2006	2982	4560	2520	3840	5417	3034	4697
4	2365	1131	1405	2880	1440	1920	3222	1645	2262	4080	2160	3120	4937	2674	3977
DAPS-4000															
1	–			–			–			–			–		
2	4285	2321	3451	5000	2750	4166	–			–			–		
3	3952	2071	2951	4666	2500	3665	5143	2786	4141	6333	3500	5332	7523	4214	6522
4	3286	1571	1952	4000	2000	2666	4476	2286	3142	5666	3000	4332	6857	3714	5523

Torque for size at 5.6 bar and swivel angle 0°

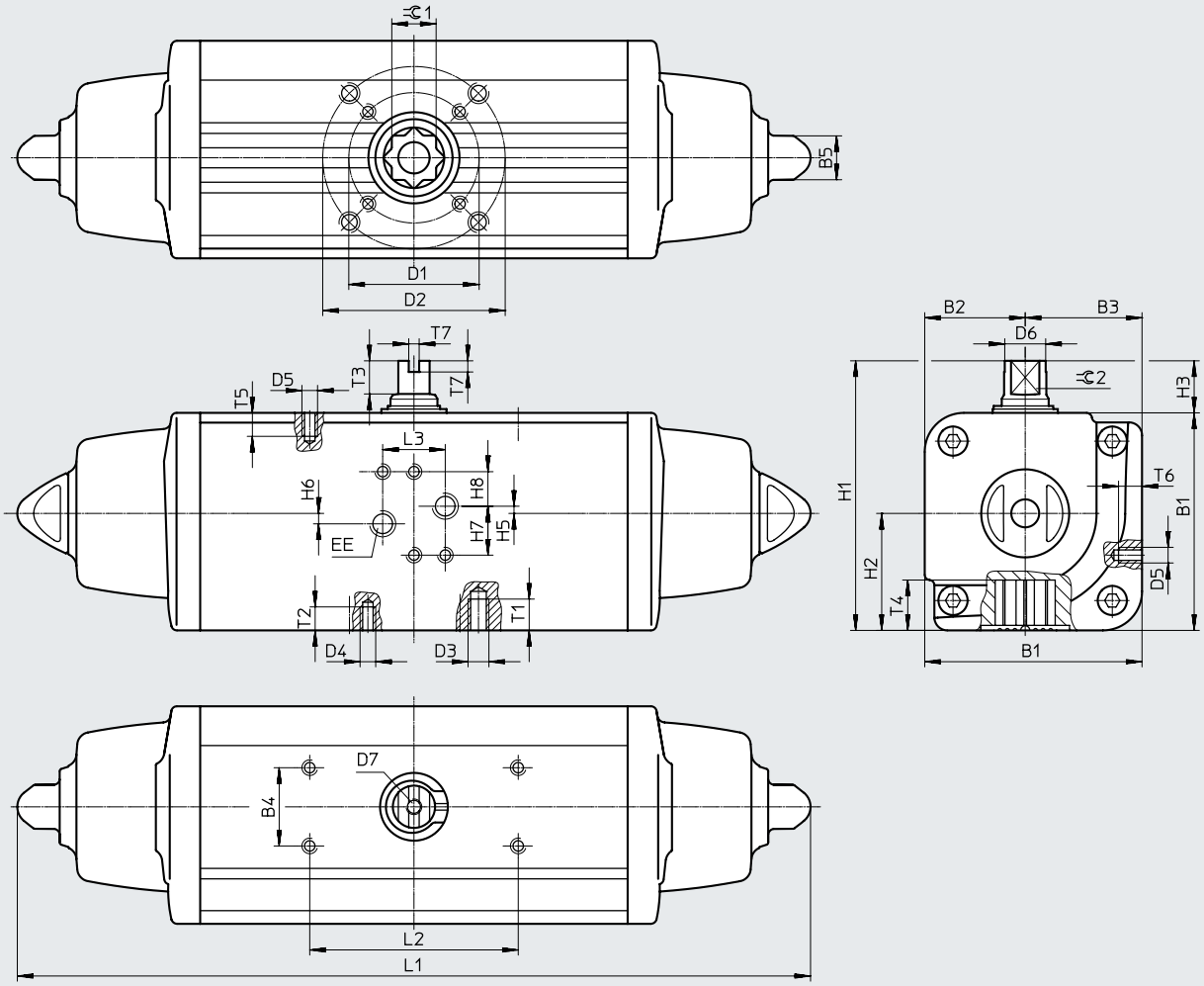
Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

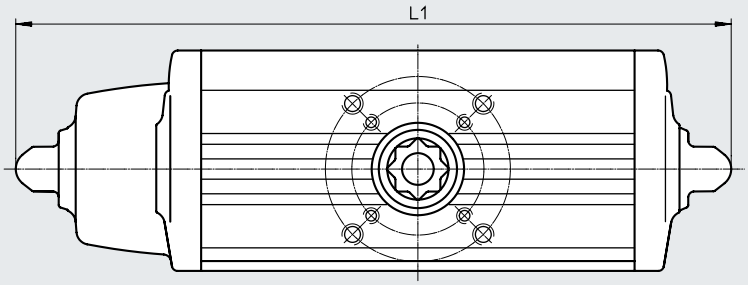
Data sheet

Dimensions Download CAD data ➔ www.festo.com

DAPS-0015-090-...-T4



RS1



Data sheet

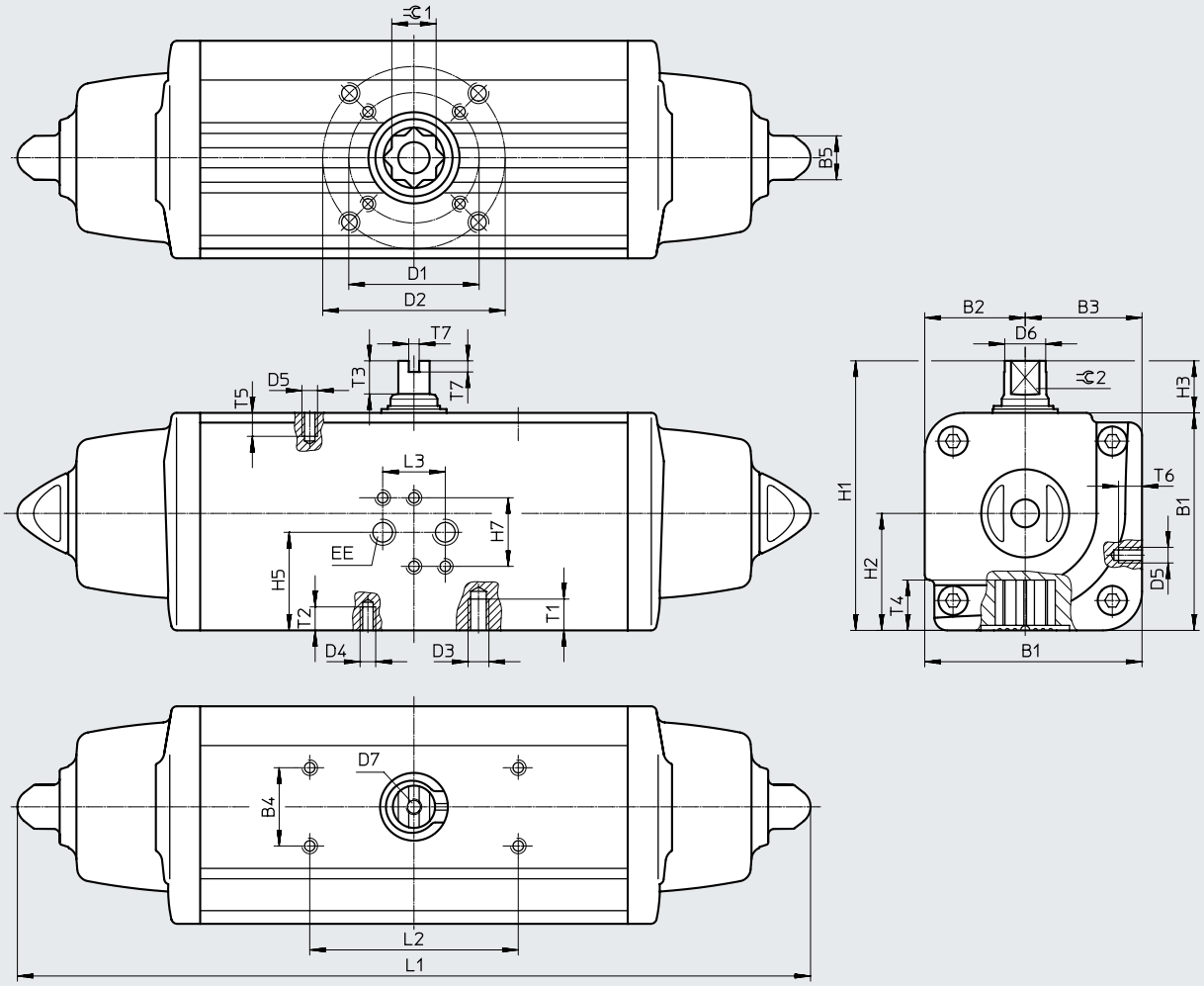
Size	B1	B2	B3	B4	B5	D1 Ø ±0.1	D2 Ø ±0.1	D3	D4	D5	D6 Ø	D7	EE	H1	H2	H3	H5
DAPS-0015-...-F0305	59.2	27.7	31.5	30	13	36	50	M6	M5	M5	10.9	M6	G1/8	79.2	31.5	20	0.8
DAPS-0015-...-F04						42	–	–									
DAPS-0030-...-F04	70.4	32.7	37.7		13	42	–	–	M5		14.5			90.4	37.7	20	–
DAPS-0030-...-F0507						50	70	M8	M6								
DAPS-0053-...-F0507	83.3	38.5	44.8		17	50	70	M8	M6		16.2			103.3	44.8	20	–
DAPS-0090-...-F0710	107.5	51	56.5		22	70	102	M10	M8		20.2			137.5	56.5	30	–
DAPS-0120-...-F0710	111.1	51	60.1		22	70	102	M10	M8		22.5			141.1	60.1	30	–
DAPS-0180-...-F0710	118	56	62		22	70	102	M10	M8		25.5			148	62	30	–

Size	H6	H7	H8	L1		L2	L3	T1	T2	T3	T4	T5	T6	T7	⇄ 1	⇄ 2
				RS1	RS ...											
DAPS-0015-...-F0305	3.2	18	14	203.8	233.3	80	24	9	8	10	13.2	6	7	4	11	9
DAPS-0015-...-F04								–								
DAPS-0030-...-F04	4			228.5	259			–	8	13	16.5				14	10
DAPS-0030-...-F0507								12	9							
DAPS-0053-...-F0507	4			270.7	304.3			12	9	13	19.3				17	12
DAPS-0090-...-F0710	4			341.8	393.7			15	12	16	24.8				22	15
DAPS-0120-...-F0710	4			361.6	409.6			15	12	17	24.8				22	15
DAPS-0180-...-F0710	4			406.6	474			15	12	19	24.3				22	19

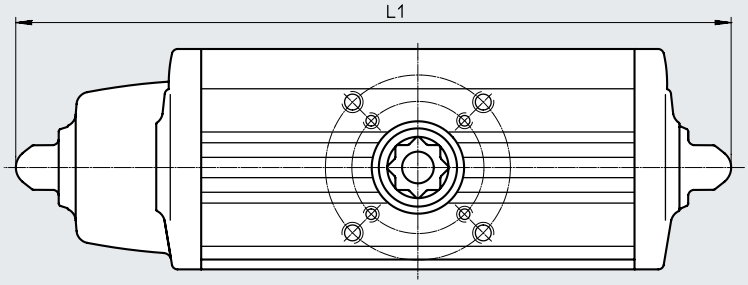
Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 0015 ... 0960



RS1



Data sheet

Size	B1	B2	B3	B4	B5	D1 ø ±0.1	D2 ø ±0.1	D3	D4	D5	D6 ø	D7	EE	H1	H2	H3
DAPS-0015-...-F0305	59.2	27.7	31.5	30	13	36	50	M6	M5	M5	10.9	M6	G1/8	79.2	31.5	20
DAPS-0015-...-F04						42	–	–								
DAPS-0030-...-F04	70.4	32.7	37.7		13	42	–	–	M5		14.5			90.4	37.7	20
DAPS-0030-...-F0507						50	70	M8	M6							
DAPS-0053-...-F0507	83.3	38.5	44.8		17	50	70	M8	M6		16.2			103.3	44.8	20
DAPS-0090-...-F0710	107.5	51	56.5		22	70	102	M10	M8		20.2			137.5	56.5	30
DAPS-0120-...-F0710	111.1	51	60.1		22	70	102	M10	M8		22.5			141.1	60.1	30
DAPS-0180-...-F0710	118	56	62		22	70	102	M10	M8		25.5			148	62	30

Size	H5	H7	L1		L2	L3	T1	T2	T3	T4	T5	T6	T7	⊂1	⊂2
			RS1	RS ...											
DAPS-0015-...-F0305	32.3	32	203.8	233.3	80	24	9	8	10	13.2	6	7	4	11	9
DAPS-0015-...-F04							–								
DAPS-0030-...-F04	37.7		228.5	259			–	8	13	16.5				14	10
DAPS-0030-...-F0507							12	9							
DAPS-0053-...-F0507	44.8		270.7	304.3			12	9	13	19.3				17	12
DAPS-0090-...-F0710	56.5		341.8	393.7			15	12	16	24.8				22	15
DAPS-0120-...-F0710	60.1		361.6	409.6			15	12	17	24.8				22	15
DAPS-0180-...-F0710	62		406.6	474			15	12	19	24.3				22	19

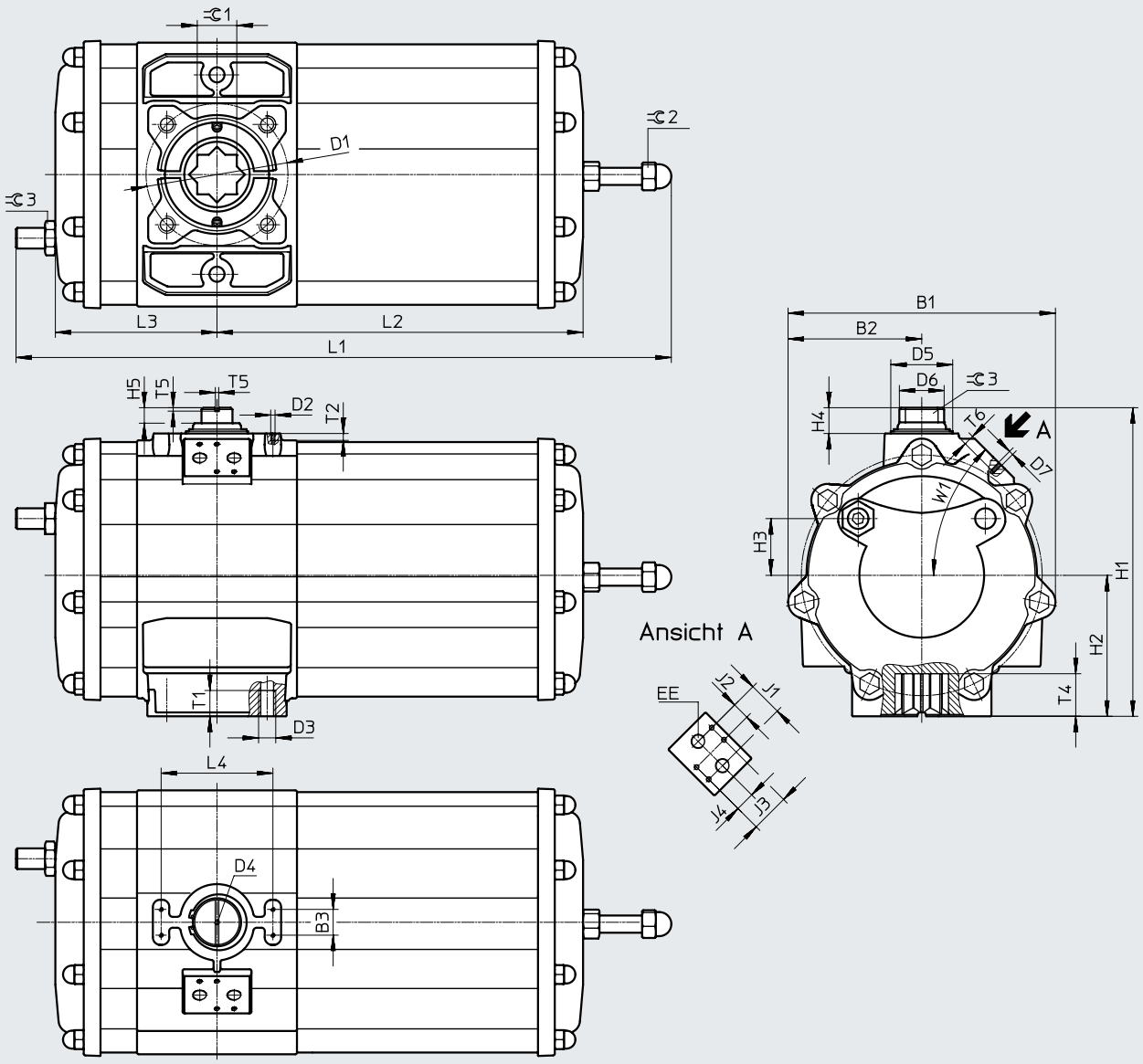
Size	B1	B2	B3	B4	B5	D1 ø	D2 ø	D3	D4	D5	D6 ø	D7	EE	H1	H2	H3
DAPS-0240-...-F1012	134.9	62	72.9	30	27	102	125	M12	M10	M5	29	M6	G1/4	164.9	72.9	30
DAPS-0360-...-F1012	148	69.5	78.5		27	102	125	M12	M10		31.8			178	78.5	
DAPS-0480-...-F1012	168	74.5	93.5		27	102	125	M12	M10		36.5			198	93.5	
DAPS-0480-...-F14						140	–	–	M16							
DAPS-0720-...-F12	186	84.5	101.5		36	125	–	–	M12		41			216	101.5	
DAPS-0720-...-F14						140			M16							
DAPS-0960-...-F14	207.7	93	114.7		36	140	–	–	M16		46			237.7	114.7	
DAPS-0960-...-F1216						125	165	M20	M12							

Size	H5	H7	L1		L2	L3	T1	T2	T3	T4	T5	T6	T7	⊂1	⊂2
			RS1	RS...											
DAPS-0240-...-F1012	57.4	32	454	520.5	80	24	18	15	19	29.5	6	7	4	27	19
DAPS-0360-...-F1012	61.5		523	613			18	15	19.5	29.5				27	22
DAPS-0480-...-F1012	78		563.8	648.2			18	15	19.5	38.5				36	24
DAPS-0480-...-F14							–	24							
DAPS-0720-...-F12	86.5		683	798			–	18	19.5	38.5				36	27
DAPS-0720-...-F14								24							
DAPS-0960-...-F14	99.2		714.4	828			–	24	18.5	48.5				46	32
DAPS-0960-...-F1216							30	18							

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 1440



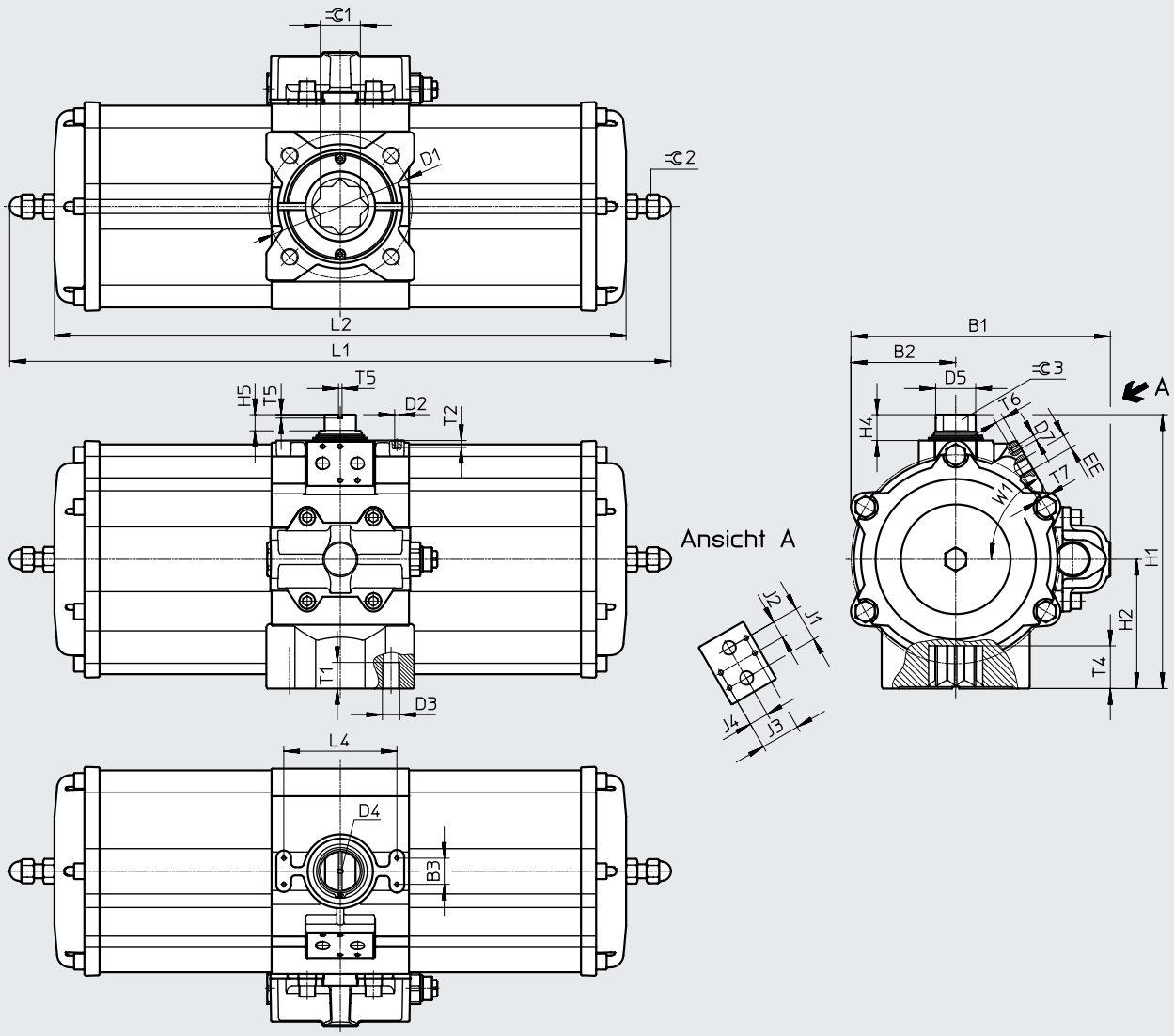
Size	B1	B2	B3	D1 ⌀	D2	D3	D4	D5 ⌀	D6 ⌀	D7	EE	H1	H2	H3	H4	H5	J1
DAPS-1440-...	311	155	30	165	M5	M20	M6	72	52	M6	G3/8	359	164	66	30	18	40

Size	J2	J3	J4	L1 ±3	L2	L3	L4	T1	T2	T4 ±0.8	T5	T6	W1	⌀1	⌀2	⌀3
DAPS-1440-...	20	45	22.5	834	498	188	130	30	8	49.5	4	10	45°	46	30	36

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 1920



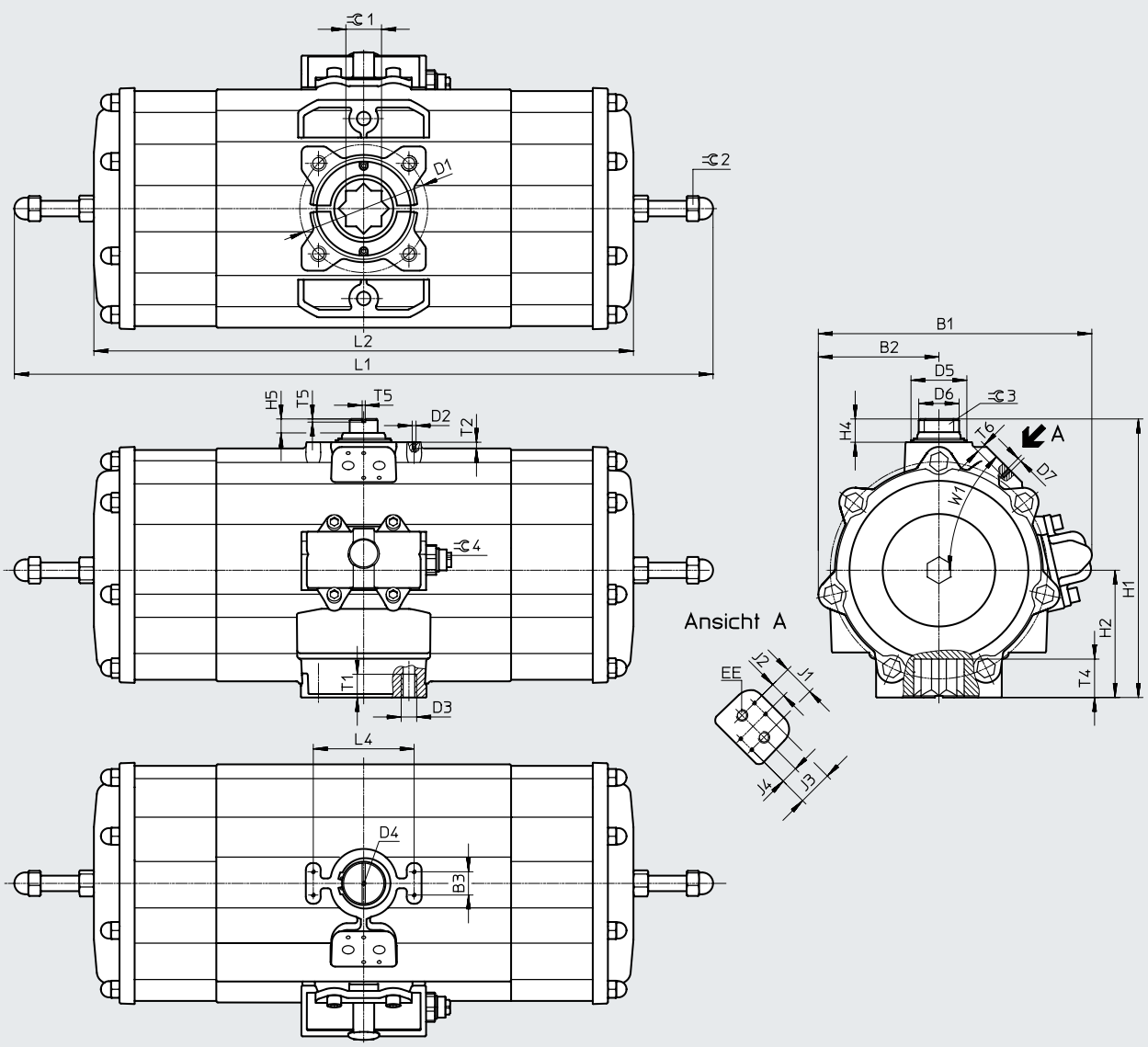
Size	B1	B2	B3	D1 ⌀	D2	D3	D4	D5 ⌀	D7	EE	H1	H2	H4	H5	J1	J2
DAPS-1920-...	298	120	30	165	M5	M20	M6	46	M6	G3/8	314	148.5	30	18.5	40	20

Size	J3	J4	L1 ±3	L2	L4	T1	T2	T4 ±1	T5	T6	T7	W1	⌀1	⌀2	⌀3
DAPS-1920-...	45	22.5	1001	857	130	30	8	49	4	10	13	60°	46	24	32

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 2880



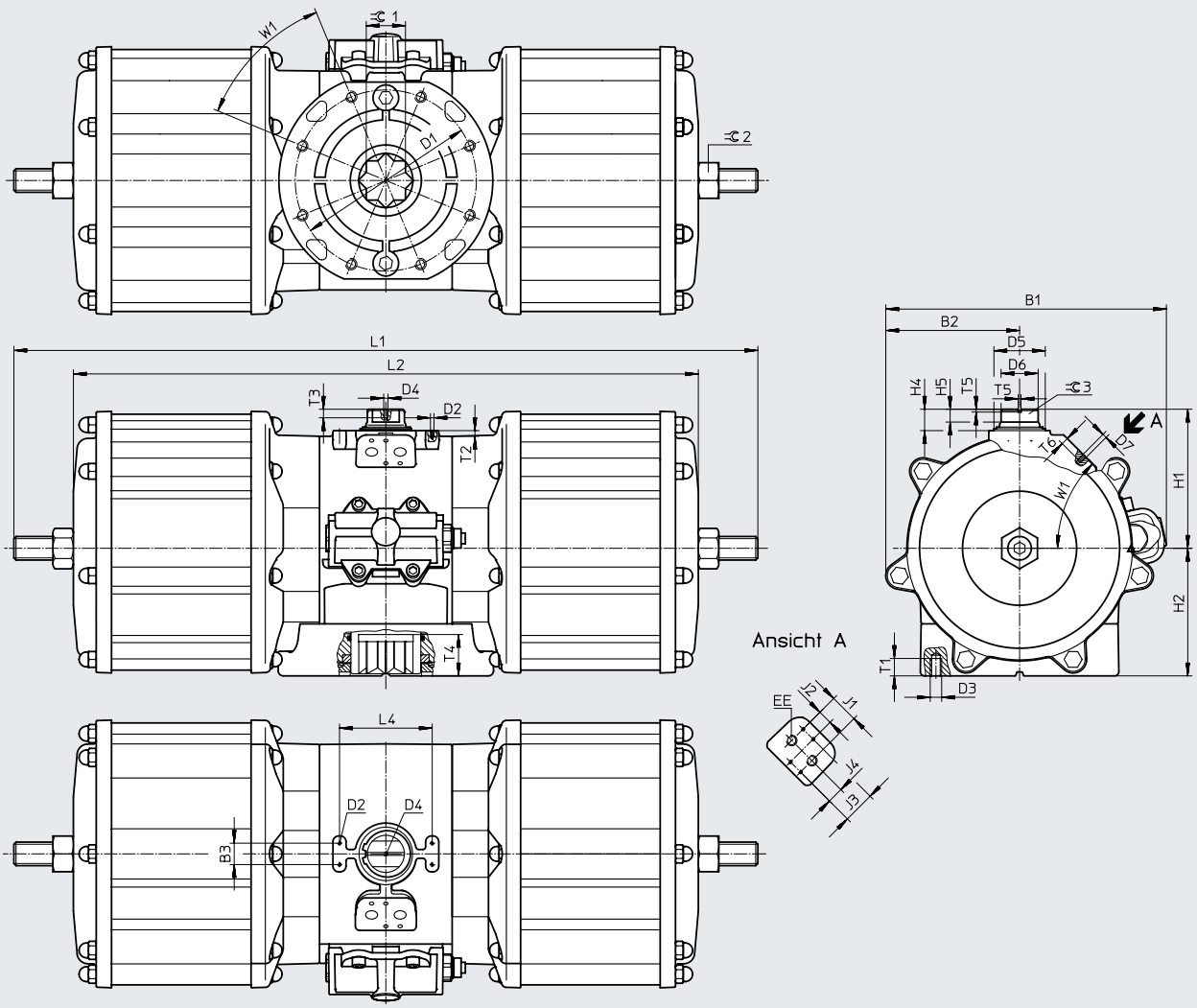
Size	B1	B2	B3	D1 ⌀	D2	D3	D4	D5 ⌀	D6 ⌀	D7	EE	H1	H2	H4	H5	J1
DAPS-2880-...	361	155	30	165	M5	M20	M6	72	52	M6	G3/8	359	164	30	18	40

Size	J2	J3	J4	L1 ±3	L2	L4	T1	T2	T4	T5	T6	W1	⌀1	⌀2	⌀3	⌀4
DAPS-2880-...	20	45	22.5	1201	996	130	30	8	49.5	4	10	45°	46	30	36	15

Data sheet

Dimensions Download CAD data ➔ www.festo.com

Size 4000



Size	B1	B2	B3	D1 ⌀	D2	D3	D4	D5 ⌀	D6 ⌀	D7	EE	H1	H2	H4	H5	J1
DAPS-4000-...	394	188	30	254	M5	M16	M6	72	52	M6	G3/8	195	179	30	18	40

Size	J2	J3	J4	L1	L2	L4	T1	T2	T3	T4	T5	T6	W1	⌀1	⌀2	⌀3
DAPS-4000-...	20	45	22.5	1370	1184	130	24	8	12	58	4	10	45°	55	50	36

Data sheet

Ordering data

Part no.	Type
Size 0015	
533427	DAPS-0015-090-RS1-F0305
533480	DAPS-0015-090-RS1-F04
533428	DAPS-0015-090-RS2-F0305
533481	DAPS-0015-090-RS2-F04
533429	DAPS-0015-090-RS3-F0305
533482	DAPS-0015-090-RS3-F04
533430	DAPS-0015-090-RS4-F0305
533483	DAPS-0015-090-RS4-F04
Size 0030	
533431	DAPS-0030-090-RS1-F04
533484	DAPS-0030-090-RS1-F0507
533432	DAPS-0030-090-RS2-F04
533485	DAPS-0030-090-RS2-F0507
533433	DAPS-0030-090-RS3-F04
533486	DAPS-0030-090-RS3-F0507
533434	DAPS-0030-090-RS4-F04
533487	DAPS-0030-090-RS4-F0507
Size 0053	
533435	DAPS-0053-090-RS1-F0507
533436	DAPS-0053-090-RS2-F0507
533437	DAPS-0053-090-RS3-F0507
533438	DAPS-0053-090-RS4-F0507
Size 0090	
533439	DAPS-0090-090-RS1-F0710
533440	DAPS-0090-090-RS2-F0710
533441	DAPS-0090-090-RS3-F0710
533442	DAPS-0090-090-RS4-F0710
Size 0120	
533443	DAPS-0120-090-RS1-F0710
533444	DAPS-0120-090-RS2-F0710
533445	DAPS-0120-090-RS3-F0710
533446	DAPS-0120-090-RS4-F0710
Size 0180	
533447	DAPS-0180-090-RS1-F0710
533448	DAPS-0180-090-RS2-F0710
533449	DAPS-0180-090-RS3-F0710
533450	DAPS-0180-090-RS4-F0710
Size 0240	
533451	DAPS-0240-090-RS1-F1012
533452	DAPS-0240-090-RS2-F1012
533453	DAPS-0240-090-RS3-F1012
533454	DAPS-0240-090-RS4-F1012
Size 0360	
549673	DAPS-0360-090-RS1-F1012
549674	DAPS-0360-090-RS2-F1012
549675	DAPS-0360-090-RS3-F1012
549676	DAPS-0360-090-RS4-F1012

Part no.	Type
Size 0480	
533455	DAPS-0480-090-RS1-F1012
533488	DAPS-0480-090-RS1-F14
533456	DAPS-0480-090-RS2-F1012
533489	DAPS-0480-090-RS2-F14
533457	DAPS-0480-090-RS3-F1012
533490	DAPS-0480-090-RS3-F14
533458	DAPS-0480-090-RS4-F1012
533491	DAPS-0480-090-RS4-F14
Size 0720	
549677	DAPS-0720-090-RS1-F12
549681	DAPS-0720-090-RS1-F14
549678	DAPS-0720-090-RS2-F12
549682	DAPS-0720-090-RS2-F14
549679	DAPS-0720-090-RS3-F12
549683	DAPS-0720-090-RS3-F14
549680	DAPS-0720-090-RS4-F12
549684	DAPS-0720-090-RS4-F14
Size 0960	
533459	DAPS-0960-090-RS1-F14
533492	DAPS-0960-090-RS1-F1216
533460	DAPS-0960-090-RS2-F14
533493	DAPS-0960-090-RS2-F1216
533461	DAPS-0960-090-RS3-F14
533494	DAPS-0960-090-RS3-F1216
533462	DAPS-0960-090-RS4-F14
533495	DAPS-0960-090-RS4-F1216
Size 1440	
549685	DAPS-1440-090-RS1-F16
549686	DAPS-1440-090-RS2-F16
549687	DAPS-1440-090-RS3-F16
549688	DAPS-1440-090-RS4-F16
Size 1920	
549689	DAPS-1920-090-RS1-F16
549690	DAPS-1920-090-RS2-F16
549691	DAPS-1920-090-RS3-F16
549692	DAPS-1920-090-RS4-F16
Size 2880	
549693	DAPS-2880-090-RS1-F16
549694	DAPS-2880-090-RS2-F16
549695	DAPS-2880-090-RS3-F16
549696	DAPS-2880-090-RS4-F16
Size 4000	
560856	DAPS-4000-090-RS1-F25
561694	DAPS-4000-090-RS2-F25
561695	DAPS-4000-090-RS3-F25
561696	DAPS-4000-090-RS4-F25

Data sheet

Ordering data – Sets of wearing parts

Part no.	Type	Part no.	Type
Size 0015		**Size 0180**	
397471	**DAPS-0030/S0015**	**397476**	**DAPS-0360/S0180**
Size 0030		**Size 0240**	
397472	**DAPS-0060/S0030**	**397477**	**DAPS-0480/S0240**
Size 0053		**Size 0480**	
397473	**DAPS-0106/S0053**	**397478**	**DAPS-0960/S0480**
Size 0090		**Size 0960**	
397474	**DAPS-0180/S0090**	**397479**	**DAPS-1920/S0960**
Size 0120			
397475	**DAPS-0240/S0120**		

Ordering data – Actuators for variant T4

Part no.	Type	Part no.	Type
Size 0015		**Size 0180**	
8030613	**DAPS-0015-090-RS4-F0305-T4**	**8030620**	**DAPS-0180-090-RS4-F0710-T4**
8030614	**DAPS-0015-090-RS4-F04-T4**	**Size 0240**	
Size 0030		**8030621**	**DAPS-0240-090-RS4-F1012-T4**
8030615	**DAPS-0030-090-RS4-F04-T4**	**Size 0360**	
8030616	**DAPS-0030-090-RS4-F0507-T4**	**8030622**	**DAPS-0360-090-RS4-F1012-T4**
Size 0053		**Size 0480**	
8030617	**DAPS-0053-090-RS4-F0507-T4**	**8030623**	**DAPS-0480-090-RS4-F1012-T4**
Size 0090		**8030624**	**DAPS-0480-090-RS4-F14-T4**
8030618	**DAPS-0090-090-RS4-F0710-T4**		
Size 0120			
8030619	**DAPS-0120-090-RS4-F0710-T4**		

Data sheet

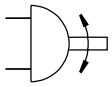
Ordering data – Actuators for variant T6

Part no.	Type
Size 0015	
553191	DAPS-0015-090-RS2-F0305-T6
553192	DAPS-0015-090-RS2-F04-T6
553210	DAPS-0015-090-RS3-F0305-T6
553211	DAPS-0015-090-RS3-F04-T6
553229	DAPS-0015-090-RS4-F0305-T6
553230	DAPS-0015-090-RS4-F04-T6
Size 0030	
553193	DAPS-0030-090-RS2-F04-T6
553194	DAPS-0030-090-RS2-F0507-T6
553212	DAPS-0030-090-RS3-F04-T6
553213	DAPS-0030-090-RS3-F0507-T6
553231	DAPS-0030-090-RS4-F04-T6
553232	DAPS-0030-090-RS4-F0507-T6
Size 0053	
553195	DAPS-0053-090-RS2-F0507-T6
553214	DAPS-0053-090-RS3-F0507-T6
553233	DAPS-0053-090-RS4-F0507-T6
Size 0090	
553196	DAPS-0090-090-RS2-F0710-T6
553215	DAPS-0090-090-RS3-F0710-T6
553234	DAPS-0090-090-RS4-F0710-T6
Size 0120	
553197	DAPS-0120-090-RS2-F0710-T6
553216	DAPS-0120-090-RS3-F0710-T6
553235	DAPS-0120-090-RS4-F0710-T6
Size 0180	
553198	DAPS-0180-090-RS2-F0710-T6
553217	DAPS-0180-090-RS3-F0710-T6
553236	DAPS-0180-090-RS4-F0710-T6
Size 0240	
553199	DAPS-0240-090-RS2-F1012-T6
553218	DAPS-0240-090-RS3-F1012-T6
553237	DAPS-0240-090-RS4-F1012-T6
Size 0360	
553200	DAPS-0360-090-RS2-F1012-T6
553219	DAPS-0360-090-RS3-F1012-T6
553238	DAPS-0360-090-RS4-F1012-T6

Part no.	Type
Size 0480	
553201	DAPS-0480-090-RS2-F1012-T6
553202	DAPS-0480-090-RS2-F14-T6
553220	DAPS-0480-090-RS3-F1012-T6
553221	DAPS-0480-090-RS3-F14-T6
553239	DAPS-0480-090-RS4-F1012-T6
553240	DAPS-0480-090-RS4-F14-T6
Size 0720	
553203	DAPS-0720-090-RS2-F12-T6
553204	DAPS-0720-090-RS2-F14-T6
553222	DAPS-0720-090-RS3-F12-T6
553223	DAPS-0720-090-RS3-F14-T6
553241	DAPS-0720-090-RS4-F12-T6
553242	DAPS-0720-090-RS4-F14-T6
Size 0960	
553205	DAPS-0960-090-RS2-F14-T6
553206	DAPS-0960-090-RS2-F1216-T6
553224	DAPS-0960-090-RS3-F14-T6
553225	DAPS-0960-090-RS3-F1216-T6
553243	DAPS-0960-090-RS4-F14-T6
553244	DAPS-0960-090-RS4-F1216-T6
Size 1440	
553207	DAPS-1440-090-RS2-F16-T6
553245	DAPS-1440-090-RS4-F16-T6
Size 1920	
553208	DAPS-1920-090-RS2-F16-T6
553227	DAPS-1920-090-RS3-F16-T6
553246	DAPS-1920-090-RS4-F16-T6
Size 2880	
553209	DAPS-2880-090-RS2-F16-T6
553228	DAPS-2880-090-RS3-F16-T6
553247	DAPS-2880-090-RS4-F16-T6

Data sheet

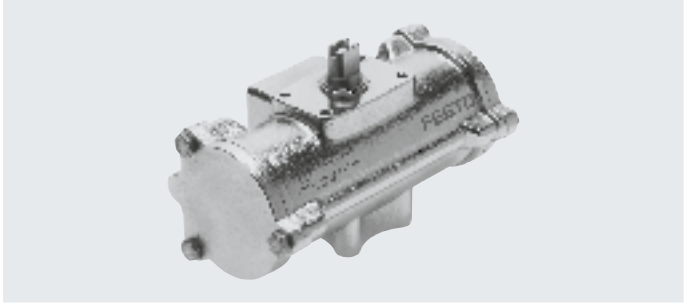
Function



Swivel angle
0 ... 90°

Size
0015 ... 0480

Torque
15 ... 480 Nm



General technical data Size		0015	0030	0060	0120	0240	0480
Pneumatic connection		G1/8					
Design		Scotch yoke system					
Mode of operation		Double-acting					
Mounting position		Any					
Position sensing		Without					
Cushioning		No cushioning					
Swivel angle	[°]	90					
Closing direction		Closes to the right					

Operating and environmental conditions Size		0015	0030	0060	0120	0240	0480
Operating pressure	[bar]	2.5 ... 8.4					
Nominal operating pressure	[bar]	5.6					
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)					
Ambient temperature	[°C]	–20 ... +80					
Corrosion resistance class CRC[1)]		3					
Process valve connection to standard		–		ISO 5211			
Valve connection conforms to standard		–		VDI/VDE 3845 (NAMUR)			
Safety integrity level (SIL)		Up to SIL 2 high demand mode					
		Up to SIL 2 low demand mode					

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex h IIC T6 ... T3 Gb X
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex h IIIC T85°C ... T200°C Db X
Explosion-proof ambient temperature	–20°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

Data sheet

Air consumption [l/cycle 0°-nominal swivel angle-0°] at 6 bar

Size		Size	
DAPS-0015	0.55	DAPS-0120	4.06
DAPS-0030	1.04	DAPS-0240	8.26
DAPS-0060	1.96	DAPS-0480	16.66

Weight [g]

Size		Size	
DAPS-0015	800	DAPS-0120	3300
DAPS-0030	1200	DAPS-0240	5600
DAPS-0060	1800	DAPS-0480	9500

Materials

Quarter turn actuators		Material number
Housing	High-alloy stainless steel	1.4408
Cover	High-alloy stainless steel	1.4408
Shaft	High-alloy stainless steel	1.4301
External screws	High-alloy stainless steel	–
Seals	FPM, NBR, PUR	–
Note on materials	RoHS-compliant	–

Actual torque [Nm] as a function of operating pressure [bar] and swivel angle [°]

Size	Swivel angle	Operating pressure [bar]							
	[°]	2.5	3	4	5	5.6	6	7	8
DAPS-0015	0	6.7	8	10.7	13.4	15	16.1	18.8	21.4
	50	3.3	4	5.4	6.7	7.5	8	9.4	10.7
	90	5	6.1	8.1	10.1	11.3	12.1	14.1	16.1
DAPS-0030	0	13.4	16.1	21.4	26.8	30	32.1	37.5	42.9
	50	6.7	8	10.7	13.4	15	16.1	18.8	21.4
	90	10	12.1	16.1	20.1	22.5	24.1	28.1	32.1
DAPS-0060	0	26.8	32.1	42.9	53.6	60	64.3	75	85.7
	50	13.4	16.1	21.4	26.8	30	32.1	37.5	42.9
	90	20.1	24.1	32.1	40.2	45	48.2	56.3	64.3
DAPS-0120	0	53.6	64.3	85.7	107.1	120	128.6	150	171.4
	50	26.8	32.1	42.9	53.6	60	64.3	75	85.7
	90	40.2	48.2	64.3	80.4	90	96.4	112.5	128.6
DAPS-0240	0	107.1	128.6	171.4	214.3	240	257.1	300	342.9
	50	53.6	64.3	85.7	107.1	120	128.6	150	171.4
	90	80.4	96.4	128.6	160.7	180	192.9	225	257.1
DAPS-0480	0	214.3	257.1	342.9	428.6	480	514.3	600	685.7
	50	107.1	128.6	171.4	214.3	240	257.1	300	342.9
	90	160.7	192.9	257.1	321.4	360	385.7	450	514.3

Torque for size at 5.6 bar and swivel angle 0°

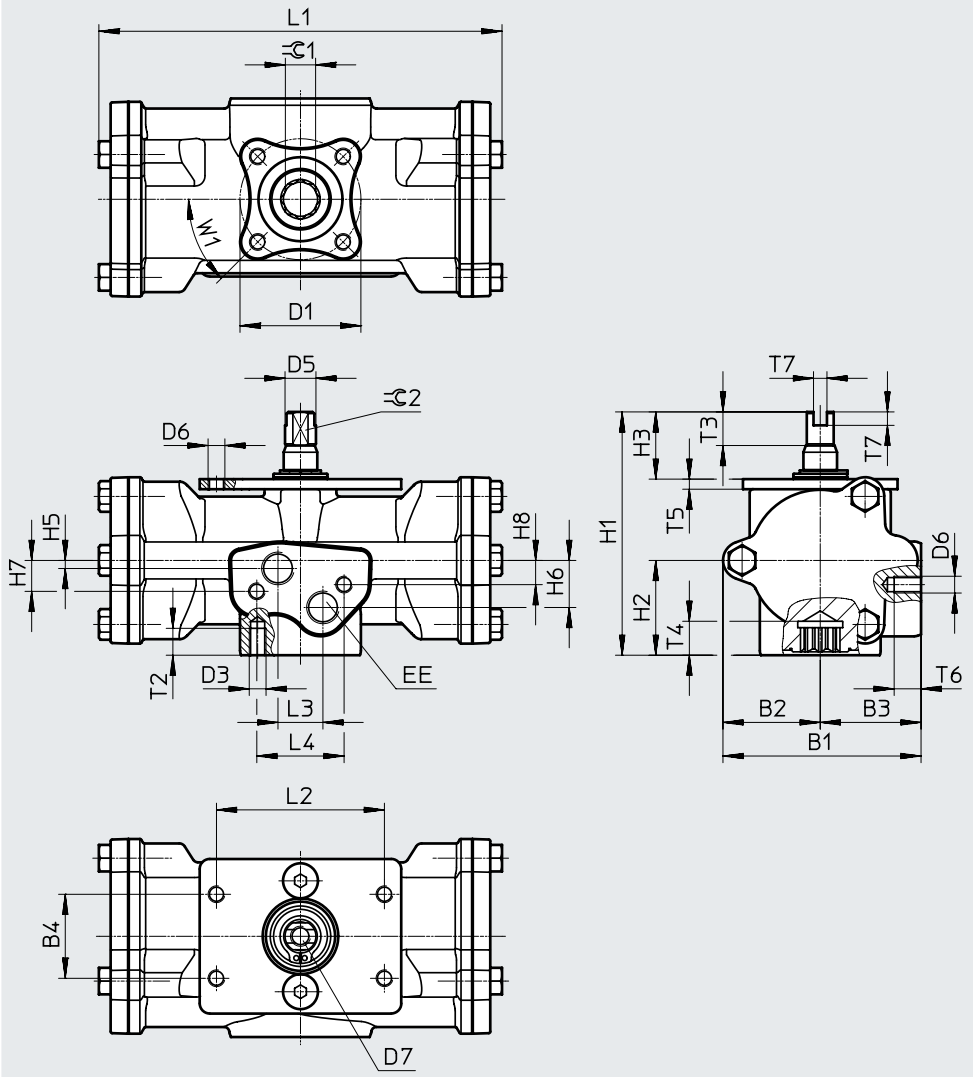
Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Dimensions Download CAD data ➔ www.festo.com

DAPS-...-090-R-F03-CR



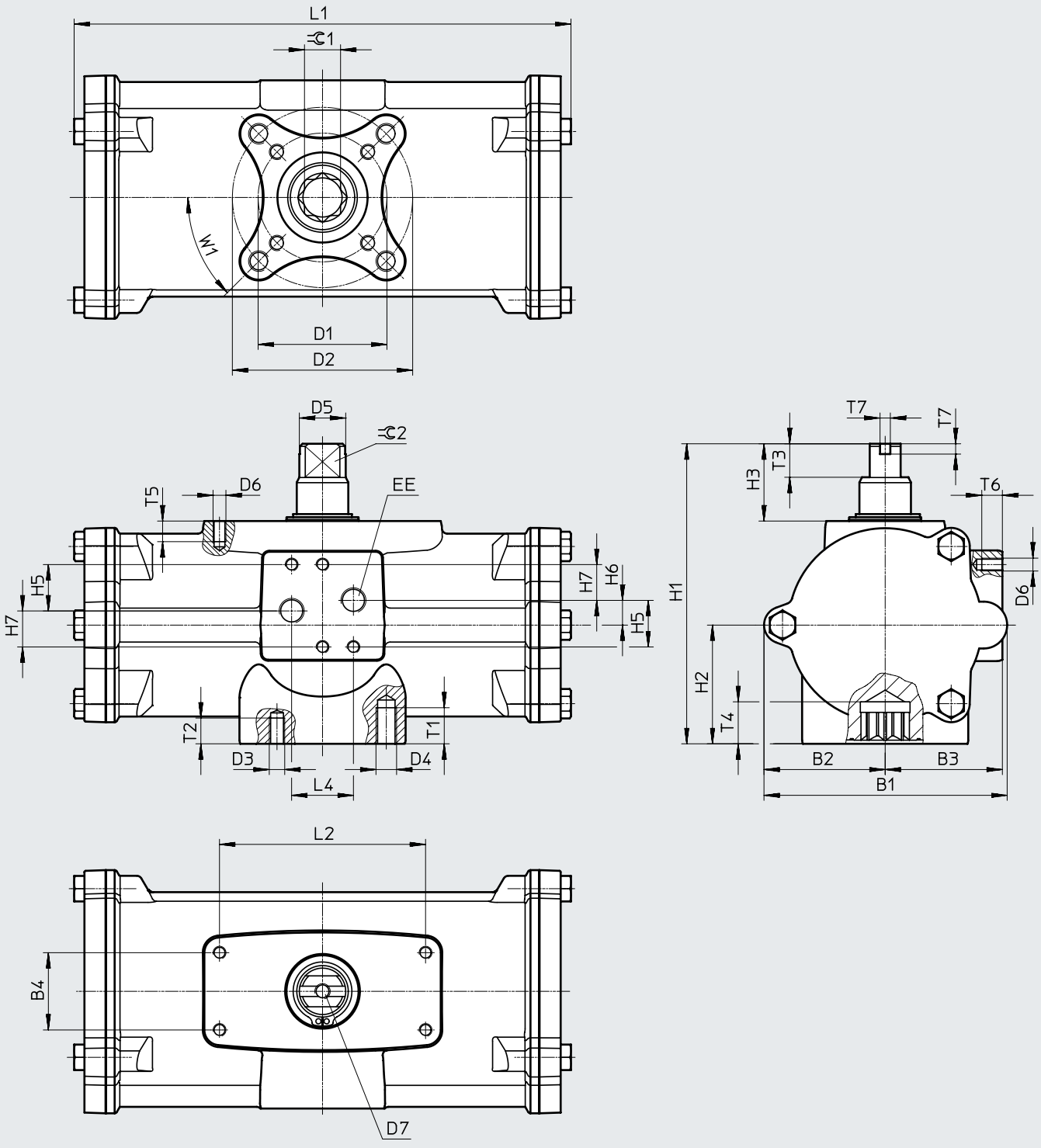
Size	B1	B2	B3	B4	D1 ø	D3	D5 ø	D6	D7	EE	H1	H2	H3	H5	H6
DAPS-0015-090-R-F03-CR	59	29	30	25	36	M5	9.2	M5	M6	G1/8	72.4	28.2	20	2.4	14
DAPS-0030-090-R-F03-CR	68.1	34.1	34	25	36	M5	10.9	M5	M6	G1/8	80.4	32.7	20	3	16

Size	H7	H8	L1 ±2	L2	L3	L4	T2	T3	T4 ±0.4	T5	T6	T7	⫩C 1 H11	⫩C 2 h11	W1
DAPS-0015-090-R-F03-CR	9.2	7.2	120	50	13.4	26	8	10	10.1	3	8	4	9	8	45°
DAPS-0030-090-R-F03-CR	10.5	8.5	134.6	50	12	26	8	10	10.2	3	8	4	9	9	45°

Data sheet

Dimensions Download CAD data ➔ www.festo.com

DAPS-...-090-R-...-CR



Data sheet

Size	B1	B2	B3	B4	D1 Ø ±0.1	D2 Ø ±0.1	D3	D4	D5 Ø	D6	D7	EE	H1	H2	H3	H5
DAPS-0060-...-R-F0305-CR	80.3	41.1	39.2	25	36	50	M5	M6	14.5	M5	M6	G1/8	92.4	37.6	20	18
DAPS-0120-...-R-F0507-CR	94.4	47	45.5	30	50	70	M6	M8	18	M5	M6	G1/8	116.5	46.1	30	18
DAPS-240-...-R-F0507-CR	117	60.2	54.5	30	50	70	M6	M8	22.5	M5	M6	G1/8	136.4	56.1	30	18
DAPS-480-...-R-F0710-CR	139.7	71	67	30	70	102	M8	M10	29	M5	M6	G1/8	160	68	30	18

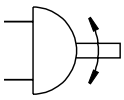
Size	H6	H7	L1 ±2	L2	L4	T1	T2	T3	T4 ±0.4	T5	T6	T7	⌯1 H11	⌯2 h11	W1
DAPS-0060-...-R-F0305-CR	9.6	14	158.4	50	24	10	8	13	12.1	8	8	4	11	10	45°
DAPS-0120-...-R-F0507-CR	9.6	14	192.9	80	24	14	10	13	16.3	8	8	4	14	12	45°
DAPS-240-...-R-F0507-CR	10	14	246.7	80	24	14	10	17	19.3	8	8	4	17	15	45°
DAPS-480-...-R-F0710-CR	10	14	298.4	80	24	16	14	19	24.3	8	8	4	22	19	45°

Ordering data

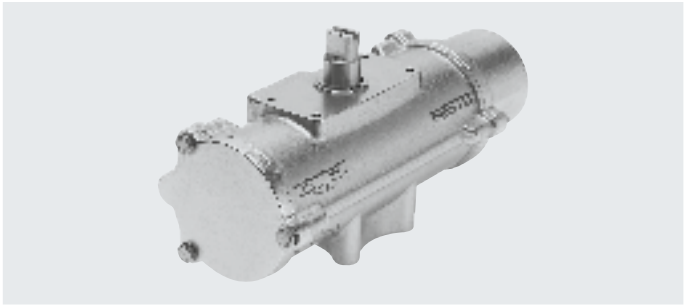
Part no.	Type
Size 0015	
552869	**DAPS-0015-090-R-F03-CR**
Size 0030	
552870	**DAPS-0030-090-R-F03-CR**
Size 0060	
552871	**DAPS-0060-090-R-F0305-CR**
Size 0120	
552872	**DAPS-0120-090-R-F0507-CR**
Size 0240	
552873	**DAPS-0240-090-R-F0507-CR**
Size 0480	
552874	**DAPS-0480-090-R-F0710-CR**

Data sheet

Function



Swivel angle
0 ... 90°



Size
0015 ... 0240

Torque
15 ... 240 Nm

General technical data						
Size		0015	0030	0060	0120	0240
Pneumatic connection		G1/8				
Design		Scotch yoke system				
Mode of operation		Single-acting				
Mounting position		Any				
Position sensing		Without				
Cushioning		No cushioning				
Swivel angle	[°]	90				
Closing direction		Closes to the right				

Operating and environmental conditions						
Size		0015	0030	0060	0120	0240
Nominal operating pressure	[bar]	5.6				
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]				
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)				
Ambient temperature	[°C]	–20 ... +80				
Corrosion resistance class CRC[1)]		3				
Process valve connection to standard		–	ISO 5211			
Valve connection conforms to standard		–	VDI/VDE 3845 (NAMUR)			
Safety integrity level (SIL)		Up to SIL 2 high demand mode				
		Up to SIL 2 low demand mode				

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex h IIC T6 ... T3 Gb X
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex h IIIC T85°C ... T200°C Db X
Explosion-proof ambient temperature	–20°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

Data sheet

Pressure ranges [bar]

Type	Connection pressure	Operating pressure
Size 0015		
DAPS-0015-090-RS1-F03-CR	2.8	2.8 ... 8.4
DAPS-0015-090-RS2-F03-CR	3.5	3.5 ... 8.4
DAPS-0015-090-RS3-F03-CR	4.2	4.2 ... 8.4
DAPS-0015-090-RS4-F03-CR	5.6	5.6 ... 8.4
Size 0030		
DAPS-0030-090-RS1-F0305-CR	2.8	2.8 ... 8.4
DAPS-0030-090-RS2-F0305-CR	3.5	3.5 ... 8.4
DAPS-0030-090-RS3-F0305-CR	4.2	4.2 ... 8.4
DAPS-0030-090-RS4-F0305-CR	5.6	5.6 ... 8.4
Size 0060		
DAPS-0060-090-RS1-F0507-CR	2.8	2.8 ... 8.4
DAPS-0060-090-RS2-F0507-CR	3.5	3.5 ... 8.4
DAPS-0060-090-RS3-F0507-CR	4.2	4.2 ... 8.4
DAPS-0060-090-RS4-F0507-CR	5.6	5.6 ... 8.4

Type	Connection pressure	Operating pressure
Size 0120		
DAPS-0120-090-RS1-F0507-CR	2.8	2.8 ... 8.4
DAPS-0120-090-RS2-F0507-CR	3.5	3.5 ... 8.4
DAPS-0120-090-RS3-F0507-CR	4.2	4.2 ... 8.4
DAPS-0120-090-RS4-F0507-CR	5.6	5.6 ... 8.4
Size 0240		
DAPS-0240-090-RS1-F0710-CR	2.8	2.8 ... 8.4
DAPS-0240-090-RS2-F0710-CR	3.5	3.5 ... 8.4
DAPS-0240-090-RS3-F0710-CR	4.2	4.2 ... 8.4
DAPS-0240-090-RS4-F0710-CR	5.6	5.6 ... 8.4

Air consumption [l/cycle 0°-nominal swivel angle-0°] at 6 bar

Size	
DAPS-0015	0.6
DAPS-0030	1.12
DAPS-0060	2.31

Size	
DAPS-0120	4.9
DAPS-0240	9.66

Weight [g]

Size	
DAPS-0015	1600
DAPS-0030	2400
DAPS-0060	4500

Size	
DAPS-0120	7600
DAPS-0240	12900

Materials

Quarter turn actuators		Material number
Housing	High-alloy stainless steel	1.4408
Cover	High-alloy stainless steel	1.4408
Shaft	High-alloy stainless steel	1.4301
External screws	High-alloy stainless steel	–
Seals	FPM, NBR, PUR	–
Note on materials	RoHS-compliant	–

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				2.5			2.8			3			3.5			4.2		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0015																		
1	5.0	3.7	7.5	6.2	2.9	3.7	7.5	3.7	5	8.4	4.2	5.9	10.6	5.6	8.1	13.8	7.4	11.3
2	6.3	4.7	9.4	–			–			7.2	3.3	4	9.4	4.7	6.3	12.6	6.5	9.4
3	7.5	5.6	11.3	–			–			–			8.2	3.7	4.4	11.3	5.6	7.5
4	10.0	7.5	15	–			–			–			–			–		
DAPS-0030																		
1	10.0	7.5	15	12.3	5.9	7.3	15	7.5	10	16.8	8.6	11.8	21.3	11.3	16.3	27.5	15	22.5
2	12.5	9.4	18.8	–			–			14.3	6.7	8	18.8	9.4	12.5	25.1	13.2	18.8
3	15.0	11.3	22.5	–			–			–			16.3	7.5	8.8	22.5	11.3	15
4	20.0	15	30	–			–			–			–			–		
DAPS-0060																		
1	20	15	30	24.6	11.8	14.6	30	15	20	33.6	17.1	23.6	42.5	22.5	32.5	55	30	45
2	25	18.8	37.5	–			–			28.6	13.4	16.1	37.5	18.8	25	50	26.3	37.5
3	30	22.5	45	–			–			–			32.5	15	17.5	45	22.5	30
4	40	30	60	–			–			–			–			–		
DAPS-0120																		
1	40	30	60	49.3	23.6	29.3	60	30	40	67.1	34.3	47.1	85	45	65	110	60	90
2	50	37.5	75	–			–			57.1	26.8	32.1	75	37.5	50	100	52.5	75
3	60	45	90	–			–			–			65	30	35	90	45	60
4	80	60	120	–			–			–			–			–		
DAPS-0240																		
1	80	60	120	98.6	47.1	58.6	120	60	80	134.3	68.6	94.3	170	90	130	220	120	180
2	100	75	150	–			–			114.3	53.6	64.3	150	75	100	200	105	150
3	120	90	180	–			–			–			130	60	70	180	90	120
4	160	120	240	–			–			–			–			–		

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				5			5.6			6			7			8		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0015																		
1	5.0	3.7	7.5	–			–			–			–			–		
2	6.3	4.7	9.4	16.1	8.7	13	18.8	10.3	15.7	–			–			–		
3	7.5	5.6	11.3	14.9	7.7	11.1	17.6	9.3	13.8	19.4	10.4	15.6	23.8	13.1	20	28.3	15.7	24.5
4	10.0	7.5	15	12.3	5.9	7.3	15	7.5	10	16.8	8.6	11.8	21.3	11.3	16.3	25.7	13.9	20.7
DAPS-0030																		
1	10.0	7.5	15	–			–			–			–			–		
2	12.5	9.4	18.8	32.2	17.5	25.9	37.6	20.7	31.3	–			–			–		
3	15.0	11.3	22.5	29.6	15.6	22.1	35	18.8	27.5	38.6	21	31.1	47.5	26.4	40	56.4	31.7	48.9
4	20.0	15	30	24.6	11.8	14.6	30	15	20	33.6	17.1	23.6	42.5	22.5	32.5	51.4	27.9	41.4
DAPS-0060																		
1	20	15	30	–			–			–			–			–		
2	25	18.8	37.5	64.3	34.9	51.8	75	41.4	62.5	–			–			–		
3	30	22.5	45	59.3	31.1	44.3	70	37.5	55	77.1	41.8	62.1	95	52.5	80	112.9	63.2	97.9
4	40	30	60	49.3	23.6	29.3	60	30	40	67.1	34.3	47.1	85	45	65	102.9	55.7	82.9
DAPS-0120																		
1	40	30	60	–			–			–			–			–		
2	50	37.5	75	128.6	69.6	103.6	150	82.5	125	–			–			–		
3	60	45	90	118.6	62.1	88.6	140	75	110	154.3	83.6	124.3	190	105	160	225.7	126.4	195.7
4	80	60	120	98.6	47.1	58.6	120	60	80	134.3	68.6	94.3	170	90	130	205.7	111.4	165.7
DAPS-0240																		
1	80	60	120	–			–			–			–			–		
2	100	75	150	257.1	139.3	207.1	300	165	250	–			–			–		
3	120	90	180	237.1	124.3	177.1	280	150	220	308.6	167.1	248.6	380	210	320	451.4	252.9	391.4
4	160	120	240	197.1	94.3	117.1	240	120	160	268.6	137.1	188.6	340	180	260	411.4	222.9	331.4

Torque for size at 5.6 bar and swivel angle 0°

Note

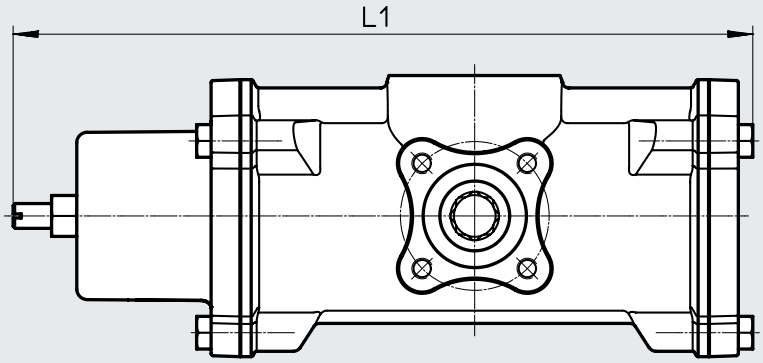
The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

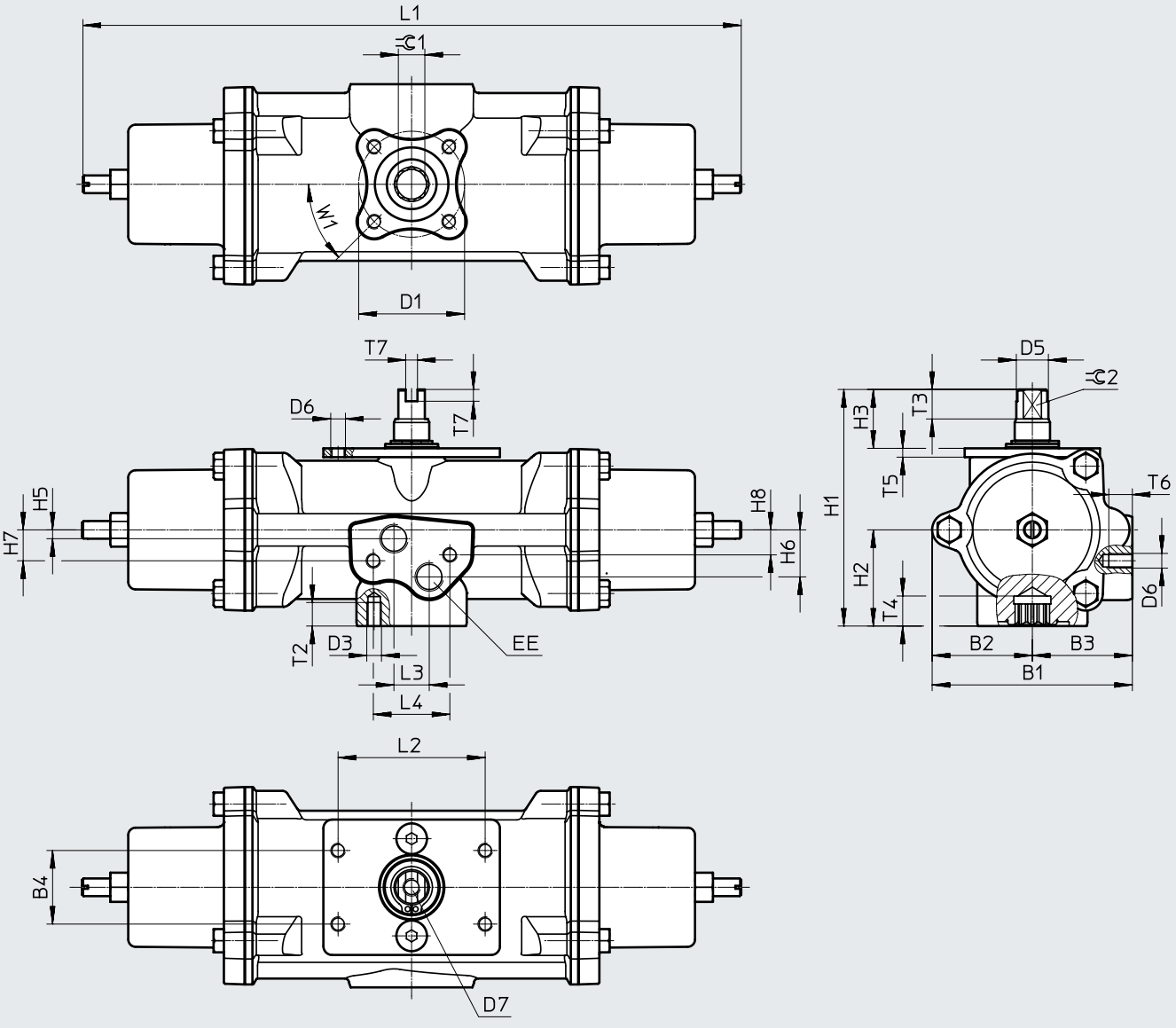
Dimensions Download CAD data ➔ www.festo.com

DAPS-0015-090-...-F03-CR

RS1



RS2 ...RS4



Data sheet

Size	B1	B2	B3	B4	D1	D3	D5	D6	D7	EE	H1	H2	H3	H5	H6	H7
					ø		ø									
DAPS-0015-090-RS-F03-CR	68.1	34.1	34	25	36	M5	10.9	M5	M6	G1/8	80.4	32.7	20	3	16	10.5

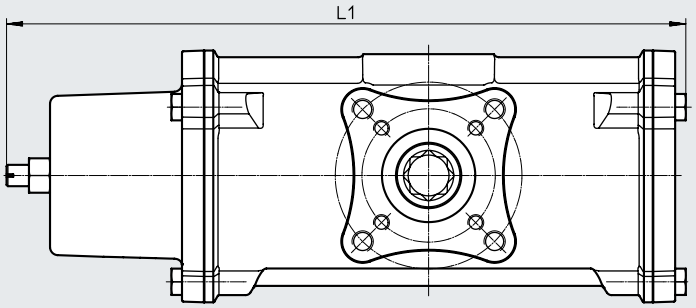
Size	H8	L1 ±2		L2	L3	L4	T2	T3	T4	T5	T6	T7	=⊂1	=⊂2	W1
		RS1	RS2...RS4						±0.4				H11	h11	
DAPS-0015-090-RS-F03-CR	8.5	179	224	50	12	26	8	10	10.2	3	8	4	9	9	45°

Data sheet

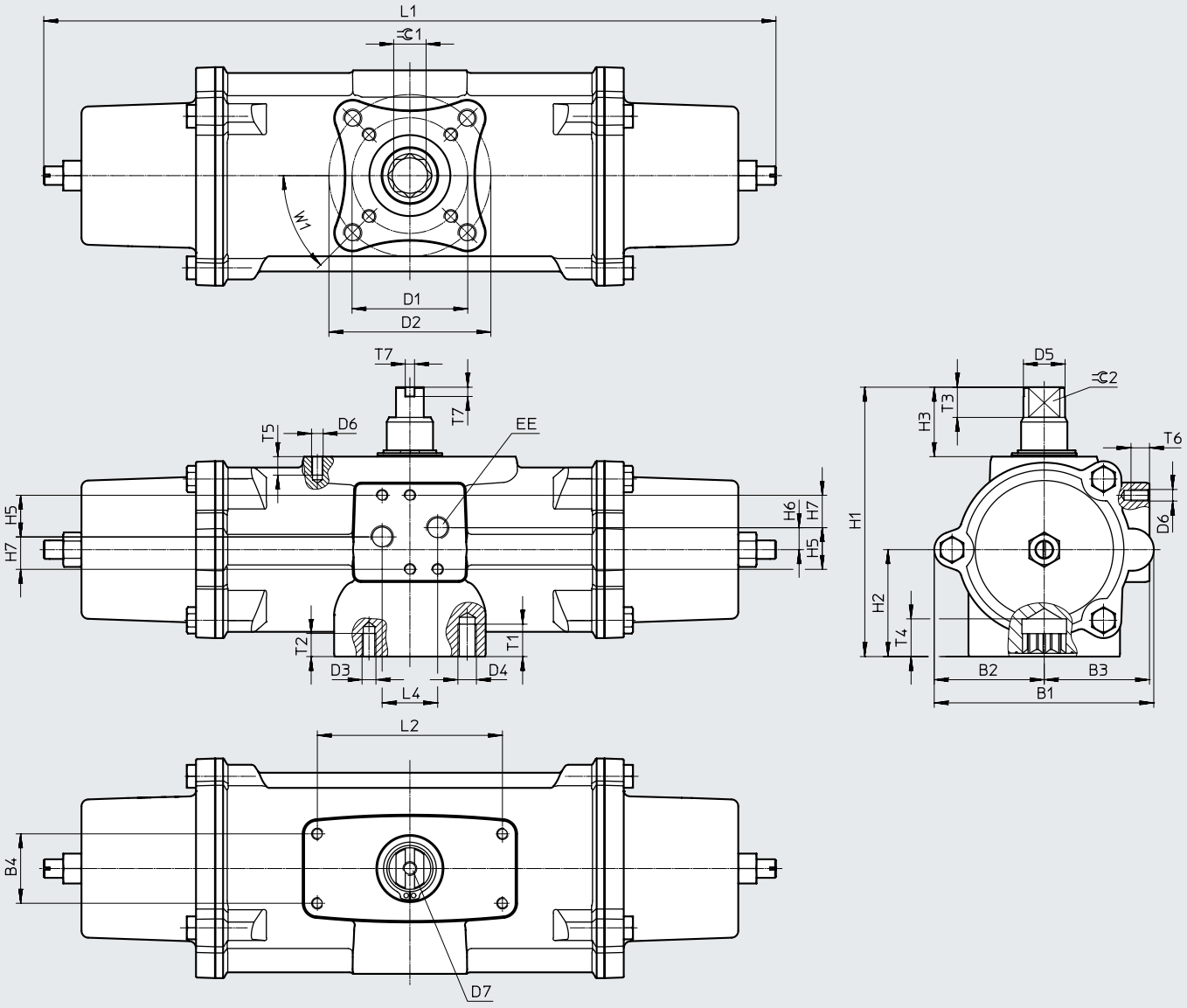
Dimensions Download CAD data ➔ www.festo.com

DAPS-...-090-...-CR

RS1



RS2 ...RS4



Data sheet

Size	B1	B2	B3	B4	D1 ø	D2 ø	D3	D4	D5 ø	D6	D7	EE	H1	H2	H3	H5
DAPS-0030- ... -F0305-CR	80.3	41.1	39.2	25	36	50	M5	M6	14.5	M5	M6	G1/8	92.4	37.6	20	18
DAPS-0060- ... -F0507-CR	94.4	47	45.5	30	50	70	M6	M8	18	M5	M6	G1/8	116.4	46.2	30	18
DAPS-0120- ... -F0507-CR	117	60.2	54.5	30	50	70	M6	M8	22.5	M5	M6	G1/8	136.4	56.1	30	18
DAPS-0240- ... -F0710-CR	139.7	70.9	67	30	70	102	M8	M10	29	M5	M6	G1/8	160	67.9	30	18

Size	H6	H7	L1 ±2		L2	L4	T1	T2	T3	T4 ±0.4	T5	T6	T7	⌯ 1 H11	⌯ 2 h11	W1
			RS1	RS2...RS4												
DAPS-0030- ... -F0305-CR	9.6	14	202.3	246.2	50	24	10	8	13	12.1	8	8	4	11	10	45°
DAPS-0060- ... -F0507-CR	9.5	14	254.7	316.5	80	24	14	10	13	16.3	8	8	4	14	12	45°
DAPS-0120- ... -F0507-CR	10	14	311.5	376.2	80	24	14	10	17	19.3	8	8	4	17	15	45°
DAPS-0240- ... -F0710-CR	10	14	381	464	80	24	16	14	19	24.3	8	8	4	22	19	45°

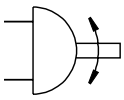
Ordering data

Part no.	Type
Size 0015	
552875	**DAPS-0015-090-RS1-F03-CR**
552876	**DAPS-0015-090-RS2-F03-CR**
552877	**DAPS-0015-090-RS3-F03-CR**
552878	**DAPS-0015-090-RS4-F03-CR**
Size 0030	
552879	**DAPS-0030-090-RS1-F0305-CR**
552880	**DAPS-0030-090-RS2-F0305-CR**
552881	**DAPS-0030-090-RS3-F0305-CR**
552882	**DAPS-0030-090-RS4-F0305-CR**
Size 0060	
552883	**DAPS-0060-090-RS1-F0507-CR**
552884	**DAPS-0060-090-RS2-F0507-CR**
552885	**DAPS-0060-090-RS3-F0507-CR**
552886	**DAPS-0060-090-RS4-F0507-CR**

Part no.	Type
Size 0120	
552887	**DAPS-0120-090-RS1-F0507-CR**
552888	**DAPS-0120-090-RS2-F0507-CR**
552889	**DAPS-0120-090-RS3-F0507-CR**
552890	**DAPS-0120-090-RS4-F0507-CR**
Size 0240	
552891	**DAPS-0240-090-RS1-F0710-CR**
552892	**DAPS-0240-090-RS2-F0710-CR**
552893	**DAPS-0240-090-RS3-F0710-CR**
552894	**DAPS-0240-090-RS4-F0710-CR**

Data sheet

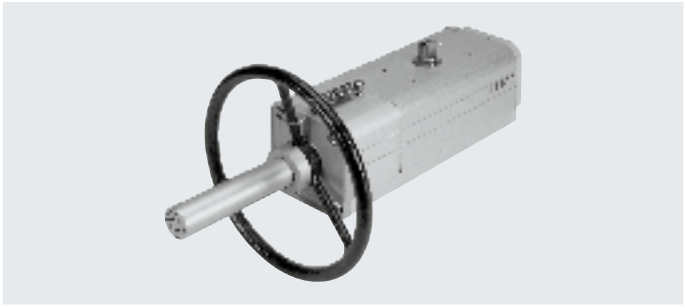
Function



Swivel angle
92°

Size
0106 ... 1920

Torque
0106 ... 1920 Nm



General technical data

Size	0106	0180	0240	0360	0480
Pneumatic connection	G1/8				G1/4
Shaft connection depth	19.3	24.8	24.8	24.3	29.5
Design	Scotch yoke system				
Mode of operation	Double-acting				
Mounting position	Any				
Position sensing	Without				
Cushioning	No cushioning				
Swivel angle [°]	92				
Closing direction	Closes to the right				

Size	0720	0960	1440	1920
Pneumatic connection	G1/4			
Shaft connection depth	29.5	38.5	38.5	48.5
Design	Scotch yoke system			
Mode of operation	Double-acting			
Mounting position	Any			
Position sensing	Without			
Cushioning	No cushioning			
Swivel angle [°]	92			
Closing direction	Closes to the right			

Data sheet

Operating and environmental conditions						
Size		0106	0180	0240	0360	00480
Operating pressure[1]	[bar]	1 ... 8.4				
Nominal operating pressure	[bar]	5.6				
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]				
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)				
Ambient temperature	[°C]	–20 ... 80				
Ambient temperature for variant T6	[°C]	–50 ... 60				
Corrosion resistance class CRC[2]		2				
Process valve connection to standard		ISO 5211				
Valve connection conforms to standard		VDI/VDE 3845 (NAMUR)				
Safety integrity level (SIL)		Up to SIL 2 high demand mode				
		Up to SIL 2 low demand mode				

Size		0720	0960	1440	1920
Operating pressure[1]	[bar]	1 ... 8.4			
Nominal operating pressure	[bar]	5.6			
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature	[°C]	–20 ... 80			
Ambient temperature for variant T6	[°C]	–50 ... 60			
Corrosion resistance class CRC[2]		2			
Process valve connection to standard		ISO 5211			
Valve connection conforms to standard		VDI/VDE 3845 (NAMUR)			
Safety integrity level (SIL)		Up to SIL 2 high demand mode			
		Up to SIL 2 low demand mode			

1) Operating pressure for variant T6 3...8.4 bar

2) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

ATEX		
ATEX category for gas		II 2G
Type of ignition protection for gas		Ex h IIC T6 ... T3 Gb X
ATEX category for dust		II 2D
Type of ignition protection for dust		Ex h IIIC T85°C ... T200°C Db X
Explosion-proof ambient temperature		–20°C <= Ta <= +60°C
Explosion-proof ambient temperature	[T6]	–50°C <= Ta <= +60°C
CE marking (see declaration of conformity)		To EU Explosion Protection Directive (ATEX)

Data sheet

Air consumption [l/cycle 0°-nominal swivel angle-0°] at 6 bar

Size		Size	
0106	3.85	0720	32.2
0180	8.4	0960	42.35
0240	11.55	1440	67.9
0360	16.1	1920	90.3
0480	22.4		

Weight [g]

Size		Size	
0106	4000	0720	17800
0180	6000	0960	23800
0240	8000	1440	33600
0360	10200	1920	43000
0480	13200		

Materials

Quarter turn actuators		Material number
Housing	Wrought aluminium alloy	–
Cover	Wrought aluminium alloy	–
[T6]	Wrought aluminium alloy	–
Shaft	High-alloy steel	1.4305
Screws	High-alloy steel	–
Seals	NBR, PUR, FPM	–
[T6]	PTFE reinforced, FVMQ	–
Note on materials	RoHS-compliant	–
[T6]	Contains paint-wetting impairment substances, RoHS-compliant	–

Data sheet

Actual torque [Nm] as a function of operating pressure [bar] and swivel angle [°]

Size	Swivel angle	Operating pressure [bar]							
	[°]	2.5	3	4	5	5.6	6	7	8
DAPS-0106	0°	47.3	56.8	75.7	94.6	106	113.6	132.5	151.4
	50°	23.7	28.4	37.9	47.3	53	56.8	66.3	75.7
	90°	35.7	72.9	57.1	71.4	80	85.7	100	114.3
DAPS-0180	0°	80.4	96.4	128.6	160.7	180	192.9	225	257.1
	50°	40.2	48.2	64.3	80.4	90	96.4	112.5	128.6
	90°	60.3	72.3	96.4	120.5	135	144.6	168.8	192.9
DAPS-0240	0°	107.1	128.6	171.4	214.3	240	257.1	300	342.9
	50°	53.6	64.3	85.7	107.1	120	128.6	150	171.4
	90°	80.4	96.4	128.6	160.7	180	192.9	225	257.1
DAPS-0360	0°	160.7	192.9	257.1	321.4	360	385.7	450	514.3
	50°	80.4	96.4	128.6	160.7	180	192.9	225	257.1
	90°	120.5	144.6	192.9	241.1	270	289.3	337.5	385.7
DAPS-0480	0°	214.3	257.1	342.9	428.6	480	514.3	600	685.7
	50°	107.1	128.6	171.4	214.3	240	257.1	300	342.9
	90°	160.7	192.9	257.1	321.4	360	385.7	450	514.3
DAPS-0720	0°	321.4	385.7	514.3	642.9	720	771.4	900	1028.6
	50°	160.7	192.9	257.1	321.4	360	385.7	450	514.3
	90°	241.1	289.3	385.7	482.1	540	578.6	675	771.4
DAPS-0960	0°	428.6	514.3	685.7	857.1	960	1028.6	1200	1371.4
	50°	214.3	257.1	342.9	428.6	480	514.3	600	685.7
	90°	321.4	385.7	514.3	642.9	720	771.4	900	1028.6
DAPS-1440	0°	642.9	771.4	1028.6	1285.7	1440	1542.9	1800	2057.1
	50°	321.4	385.7	514.3	642.9	720	771.4	900	1028.6
	90°	482.1	578.6	771.4	964.3	1080	1157.1	1350	1542.9
DAPS-1920	0°	857.1	1028.6	1371.4	1714.3	1920	2057.1	2400	2742.9
	50°	428.6	514.3	685.7	857.1	960	1028.6	1200	1371.4
	90°	642.9	771.4	1028.6	1285.7	1440	1542.9	1800	2057.1

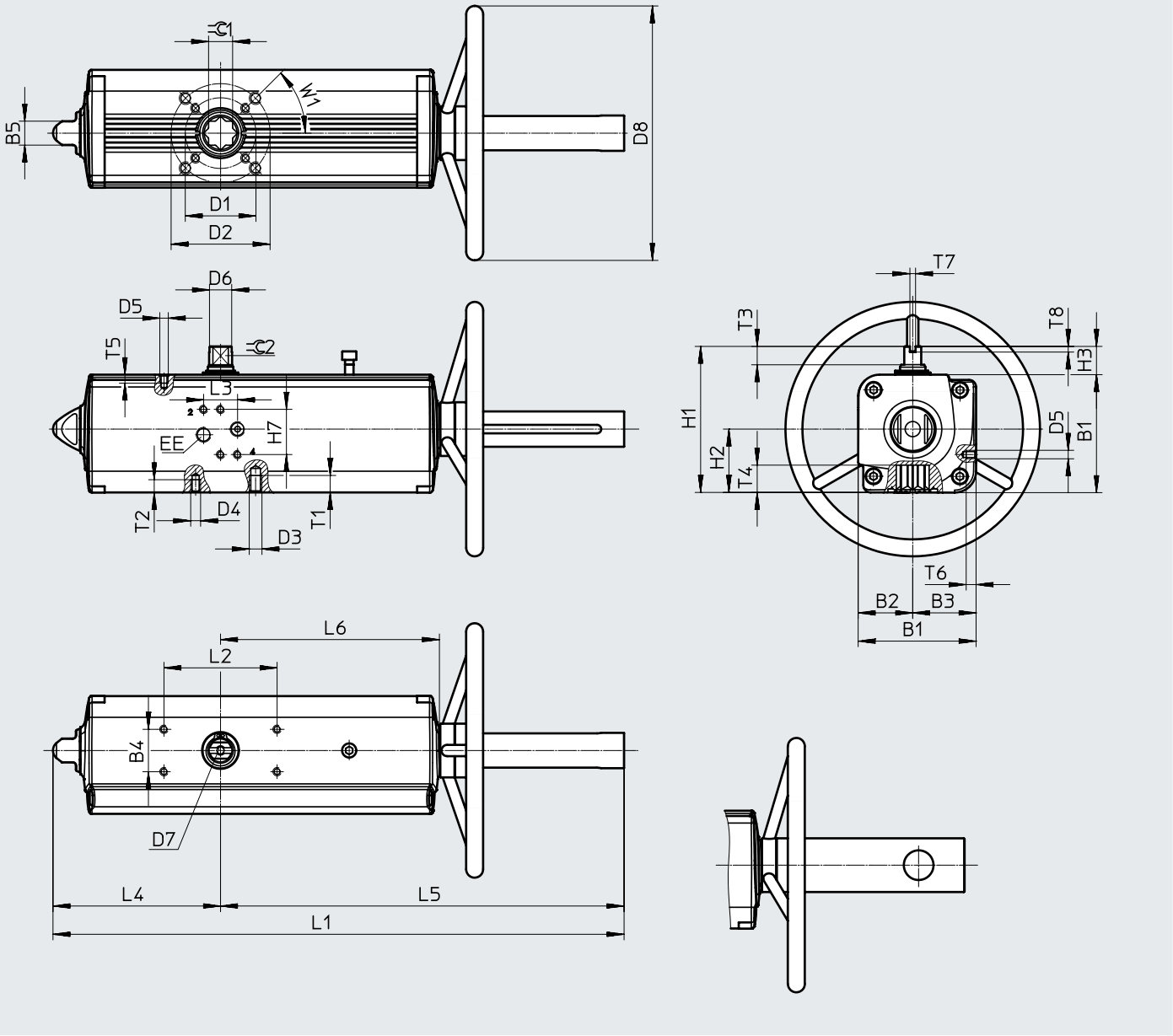
Torque for size at 5.6 bar and swivel angle 0°

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Dimensions Download CAD data ➔ www.festo.com



Data sheet

Size	B1 ±0.4	B2	B3	B4	B5	D1 Ø	D2 Ø	D3	D4	D5	D6 Ø	D7
DAPS-0106-...-F0507-...	83.3	38.5	44.8	30	17	50	70	M8	M6	M5	16.2	M6x12
DAPS-0180-...-F0710-...	107.5	51	56.5	30	22	70	102	M10	M8	M5	20.2	M6x12
DAPS-0240-...-F0710-...	111.1	51	60.1	30	22	70	102	M10	M8	M5	22.5	M6x12
DAPS-0360-...-F0710-...	118	56	62	30	22	70	102	M10	M8	M5	25.5	M6x12
DAPS-0480-...-F1012-...	134.9	62	72.9	30	27	102	125	M12	M10	M5	29	M6x12
DAPS-0720-...-F1012-...	148	69.5	78.5	30	27	102	125	M12	M10	M5	31.8	M6x12
DAPS-0960-...-F1012-...	168	74.5	93.5	30	27	102	125	M12	M10	M5	36.5	M6x12
DAPS-0960-...-F14-...	168	74.5	93.5	30	27	–	140	M16	–	M5	36.5	M6x12
DAPS-1440-...-F12-...	186	84.5	101.5	30	36	–	125	M12	–	M5	41	M6x12
DAPS-1440-...-F14-...	186	84.5	101.5	30	36	–	140	M16	–	M5	41	M6x12
DAPS-1920-...-F14-...	207.7	93	114.7	30	36	–	140	M16	–	M5	46	M6x12
DAPS-1920-...-F1216-...	207.7	93	114.7	30	36	125	165	M20	M12	M5	46	M6x12

Size	D8 Ø	EE	H1	H2	H3	H7	L1 ±2	L2	L3	L4	L5	L6
DAPS-0106-...-F0507-...	180	G1/8	103.3	44.8	20±0.4	32	403.9	80	24	118.5	279.3	154.8
DAPS-0180-...-F0710-...	220	G1/8	137.5	56.5	30±0.4	32	493.2	80	24	144.9	338.1	183.5
DAPS-0240-...-F0710-...	220	G1/8	141.1	60.1	30±0.4	32	520.6	80	24	156.8	353.7	199.1
DAPS-0360-...-F0710-...	300	G1/8	148	62	30±0.4	32	578.8	80	24	169.6	398	220.8
DAPS-0480-...-F1012-...	300	G1/4	164.9	72.9	30±0.4	32	618.8	80	24	193.8	440.6	236.4
DAPS-0720-...-F1012-...	350	G1/4	178	78.5	30±0.4	32	732.8	80	24	216.6	503.5	282.3
DAPS-0960-...-F1012-...	350	G1/4	198	93.5	30±0.5	32	770.2	80	24	239.7	518.3	297.1
DAPS-0960-...-F14-...	350	G1/4	198	93.5	30±0.5	32	770.2	80	24	239.7	518.3	297.1
DAPS-1440-...-F12-...	400	G1/4	216	101.5	30±0.5	32	936.9	80	24	283.5	636.4	365.6
DAPS-1440-...-F14-...	400	G1/4	216	101.5	30±0.5	32	936.9	80	24	283.5	636.4	365.6
DAPS-1920-...-F14-...	400	G1/4	237.7	114.7	30±0.8	32	970.3	80	24	300.4	653.7	382.9
DAPS-1920-...-F1216-...	400	G1/4	237.7	114.7	30±0.8	32	970.3	80	24	300.4	653.7	382.9

Size	T1	T2	T3	T4	T5	T6	T7 +0.1	T8 +0.3	⫧ 1 H11	⫧ 2 h11	W1
DAPS-0106-...-F0507-...	12	9	13	19.3±0.4	6	7	4	4	17	12	45°
DAPS-0180-...-F0710-...	15	12	16	24.8±0.4	6	7	4	4	22	15	45°
DAPS-0240-...-F0710-...	15	12	17	24.8±0.4	6	7	4	4	22	15	45°
DAPS-0360-...-F0710-...	15	12	19	24.3±0.4	6	7	4	4	22	19	45°
DAPS-0480-...-F1012-...	18	15	19	29.5±0.4	6	7	4	4	27	19	45°
DAPS-0720-...-F1012-...	18	15	19.5	29.5±0.4	6	7	4	4	27	22	45°
DAPS-0960-...-F1012-...	18	15	19.5	38.5±0.5	6	7	4	4	36	24	45°
DAPS-0960-...-F14-...	24	–	19.5	38.5±0.5	6	7	4	4	36	24	45°
DAPS-1440-...-F12-...	18	–	19.5	38.5±0.5	6	7	4	4	36	27	45°
DAPS-1440-...-F14-...	24	–	19.5	38.5±0.5	6	7	4	4	36	27	45°
DAPS-1920-...-F14-...	24	–	18.5	48.5±0.8	6	7	4	4	46	32	45°
DAPS-1920-...-F1216-...	30	18	18.5	48.5±0.8	6	7	4	4	46	32	45°

Data sheet

Ordering data – Double-acting

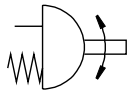
Part no.	Type
Size 0106	
8005002	**DAPS-0106-090-R-F0507-MW**
Size 0180	
8005003	**DAPS-0180-090-R-F0710-MW**
Size 0240	
8005004	**DAPS-0240-090-R-F0710-MW**
Size 0360	
8005005	**DAPS-0360-090-R-F0710-MW**
Size 0480	
8005006	**DAPS-0480-090-R-F1012-MW**
Size 0720	
8005007	**DAPS-0720-090-R-F1012-MW**
Size 0960	
8005008	**DAPS-0960-090-R-F1012-MW**
8005009	**DAPS-0960-090-R-F14-MW**
Size 1440	
8005010	**DAPS-1440-090-R-F12-MW**
8005011	**DAPS-1440-090-R-F14-MW**
Size 1920	
8005013	**DAPS-1920-090-R-F1216-MW**
8005012	**DAPS-1920-090-R-F14-MW**

Ordering data – Double-acting T6

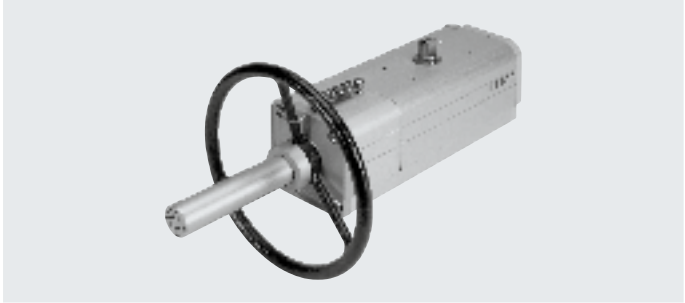
Part no.	Type
Size 0106	
8005014	**DAPS-0106-090-R-F0507-MW-T6**
Size 0180	
8005015	**DAPS-0180-090-R-F0710-MW-T6**
Size 0240	
8005016	**DAPS-0240-090-R-F0710-MW-T6**
Size 0360	
8005017	**DAPS-0360-090-R-F0710-MW-T6**
Size 0480	
8005018	**DAPS-0480-090-R-F1012-MW-T6**
Size 0720	
8005019	**DAPS-0720-090-R-F1012-MW-T6**
Size 0960	
8005020	**DAPS-0960-090-R-F1012-MW-T6**
8005021	**DAPS-0960-090-R-F14-MW-T6**
Size 1440	
8005022	**DAPS-1440-090-R-F12-MW-T6**
8005023	**DAPS-1440-090-R-F14-MW-T6**
Size 1920	
8005024	**DAPS-1920-090-R-F14-MW-T6**
8005025	**DAPS-1920-090-R-F1216-MW-T6**

Data sheet

Function



Swivel angle
0 ... 92°



Size
0053 ... 0960

Torque
0053 ... 0960 Nm

General technical data

Size		0053	0090	0120	0180	0240
Pneumatic connection		G1/8				G1/4
Shaft connection depth	[mm]	19.3	24.8	24.8	24.3	29.5
Note on the end-position adjusting range		One end position optionally adjustable				
Design		Scotch yoke system				
Mode of operation		Single-acting				
Mounting position		Any				
Position sensing		Without				
Cushioning		No cushioning				
Swivel angle	[°]	92				
Closing direction		Closes to the right				

Size		0360	0480	0720	0960
Pneumatic connection		G1/4			
Shaft connection depth	[mm]	29.5	38.5	38.5	48.5
Note on the end-position adjusting range		One end position optionally adjustable			
Design		Scotch yoke system			
Mode of operation		Single-acting			
Mounting position		Any			
Position sensing		Without			
Cushioning		No cushioning			
Swivel angle	[°]	92			
Closing direction		Closes to the right			

Data sheet

Operating and environmental conditions						
Size		0053	0090	0120	0180	0240
Nominal operating pressure	[bar]	5.6				
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]				
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)				
Ambient temperature	[°C]	-20 ... 80				
Corrosion resistance class CRC[1)]		2				
Process valve connection to standard		ISO 5211				
Valve connection conforms to standard		VDI/VDE 3845 (NAMUR)				
Safety integrity level (SIL)		Up to SIL 2 high demand mode				
		Up to SIL 2 low demand mode				

Size		0360	0480	0720	0960
Nominal operating pressure	[bar]	5.6			
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature	[°C]	-20 ... 80			
Corrosion resistance class CRC[1)]		2			
Process valve connection to standard		ISO 5211			
Valve connection conforms to standard		VDI/VDE 3845 (NAMUR)			
Safety integrity level (SIL)		Up to SIL 2 high demand mode			
		Up to SIL 2 low demand mode			

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex h IIC T6 ... T3 Gb X
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex h IIIC T85°C ... T200°C Db X
Explosion-proof ambient temperature	-50°C <= Ta <= +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

Materials		
Quarter turn actuators		Material number
Housing	Wrought aluminium alloy	–
Cover	Wrought aluminium alloy	–
Shaft	High-alloy steel	1.4305
External screws	High-alloy steel	–
Seals	FPM, NBR, PUR	–
Note on materials	RoHS-compliant	–

Data sheet

Pressure ranges [bar]

Type	Connection pressure	Operating pressure
Size 0053		
DAPS-0053-090-RS1-F0507-MW	2.8	2.8 ... 8.4
DAPS-0053-090-RS2-F0507-MW	3.5	3.5 ... 8.4
DAPS-0053-090-RS3-F0507-MW	4.2	4.2 ... 8.4
DAPS-0053-090-RS4-F0507-MW	5.6	5.6 ... 8.4
Size 0090		
DAPS-0090-090-RS1-F0710-MW	2.8	2.8 ... 8.4
DAPS-0090-090-RS2-F0710-MW	3.5	3.5 ... 8.4
DAPS-0090-090-RS3-F0710-MW	4.2	4.2 ... 8.4
DAPS-0090-090-RS4-F0710-MW	5.6	5.6 ... 8.4
Size 0120		
DAPS-0120-090-RS1-F0710-MW	2.8	2.8 ... 8.4
DAPS-0120-090-RS2-F0710-MW	3.5	3.5 ... 8.4
DAPS-0120-090-RS3-F0710-MW	4.2	4.2 ... 8.4
DAPS-0120-090-RS4-F0710-MW	5.6	5.6 ... 8.4
Size 0180		
DAPS-0180-090-RS1-F0710-MW	2.8	2.8 ... 8.4
DAPS-0180-090-RS2-F0710-MW	3.5	3.5 ... 8.4
DAPS-0180-090-RS3-F0710-MW	4.2	4.2 ... 8.4
DAPS-0180-090-RS4-F0710-MW	5.6	5.6 ... 8.4
Size 0240		
DAPS-0240-090-RS1-F1012-MW	2.8	2.8 ... 8.4
DAPS-0240-090-RS2-F1012-MW	3.5	3.5 ... 8.4
DAPS-0240-090-RS3-F1012-MW	4.2	4.2 ... 8.4
DAPS-0240-090-RS4-F1012-MW	5.6	5.6 ... 8.4
Size 0360		
DAPS-0360-090-RS1-F1012-MW	2.8	2.8 ... 8.4
DAPS-0360-090-RS2-F1012-MW	3.5	3.5 ... 8.4
DAPS-0360-090-RS3-F1012-MW	4.2	4.2 ... 8.4
DAPS-0360-090-RS4-F1012-MW	5.6	5.6 ... 8.4

Type	Connection pressure	Operating pressure
Size 0480		
DAPS-0480-090-RS1-F1012-MW	2.8	2.8 ... 8.4
DAPS-0480-090-RS1-F14-MW	2.8	2.8 ... 8.4
DAPS-0480-090-RS2-F1012-MW	3.5	3.5 ... 8.4
DAPS-0480-090-RS2-F14-MW	3.5	3.5 ... 8.4
DAPS-0480-090-RS3-F1012-MW	4.2	4.2 ... 8.4
DAPS-0480-090-RS3-F14-MW	4.2	4.2 ... 8.4
DAPS-0480-090-RS4-F1012-MW	5.6	5.6 ... 8.4
DAPS-0480-090-RS4-F14-MW	5.6	5.6 ... 8.4
Size 0720		
DAPS-0720-090-RS1-F12-MW	2.8	2.8 ... 8.4
DAPS-0720-090-RS1-F14-MW	2.8	2.8 ... 8.4
DAPS-0720-090-RS2-F12-MW	3.5	3.5 ... 8.4
DAPS-0720-090-RS2-F14-MW	3.5	3.5 ... 8.4
DAPS-0720-090-RS3-F12-MW	4.2	4.2 ... 8.4
DAPS-0720-090-RS3-F14-MW	4.2	4.2 ... 8.4
DAPS-0720-090-RS4-F12-MW	5.6	5.6 ... 8.4
DAPS-0720-090-RS4-F14-MW	5.6	5.6 ... 8.4
Size 0960		
DAPS-0960-090-RS1-F1216-MW	2.8	2.8 ... 8.4
DAPS-0960-090-RS1-F14-MW	2.8	2.8 ... 8.4
DAPS-0960-090-RS2-F1216-MW	3.5	3.5 ... 8.4
DAPS-0960-090-RS2-F14-MW	3.5	3.5 ... 8.4
DAPS-0960-090-RS3-F1216-MW	4.2	4.2 ... 8.4
DAPS-0960-090-RS3-F14-MW	4.2	4.2 ... 8.4
DAPS-0960-090-RS4-F1216-MW	5.6	5.6 ... 8.4
DAPS-0960-090-RS4-F1216-MW	5.6	5.6 ... 8.4

Air consumption [l/cycle 0°-nominal swivel angle-0°] at 6 bar

Size	
0053	2.1
0090	3.9
0120	5.6
0180	7
0240	10.5

Size	
0360	14
0480	19.6
0720	29.4
0960	41.3

Weight [g]

Size	
0053	4500
0090	6800
0120	9000
0180	11700
0240	15200

Size	
0360	19500
0480	28100
0720	38800
0960	50600

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				2.5			2.8			3			3.5			4.2		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0053																		
1	17.5	13	26.5	20.2	9.3	11.2	26.5	13	17.5	29.6	14.9	20.6	37.5	19.5	28.5	48.5	26	39.5
2	22	16.5	33	–			–			25.1	11.8	14.1	33	16.5	22	44	23.1	33
3	26	19.5	40	–			–			–			29	13	15	40	19.5	26
4	35	26	53	–			–			–			–			–		
DAPS-0090																		
1	30	22.5	45	34.3	16.1	19.3	45	22.5	30	50.4	25.7	35.4	63.8	33.8	48.8	82.5	45	67.5
2	37.5	28.1	56.3	–			–			42.9	20.1	24.1	56.3	28.1	37.5	75.1	39.4	56.3
3	45	33.9	67.5	–			–			–			48.8	22.6	26.3	67.5	33.9	45
4	60	45	90	–			–			–			–			–		
DAPS_0120																		
1	40	30	60	45.7	21.4	25.7	60	30	40	67.1	34.3	47.1	85	45	65	110	60	90
2	50	37.5	75	–			–			57.1	26.8	32.1	75	37.5	50	100	52.5	75
3	60	45	90	–			–			–			65	30	35	90	45	60
4	80	60	120	–			–			–			–			–		
DAPS_0180																		
1	60	45	90	68.6	32.1	38.6	90	45	60	100.7	51.4	70.7	127.5	67.5	97.5	165	90	135
2	75	56.3	112.5	–			–			85.7	40.2	48.2	112.5	56.3	75	150	78.8	112.5
3	90	67.5	135	–			–			–			97.5	45	52.5	135	67.5	90
4	120	90	180	–			–			–			–			–		
DAPS_0240																		
1	80	60	120	91.4	42.9	51.4	120	60	80	134.3	68.6	94.3	170	90	130	220	120	180
2	100	75	150	–			–			114.3	53.6	64.3	150	75	100	200	105	150
3	120	90	180	–			–			–			130	60	70	180	90	120
4	160	120	240	–			–			–			–			–		

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				5			5.6			6			7			8		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0053																		
1	17.5	13	26.5	–			–			–			–			–		
2	22	16.5	33	56.6	30.6	45.6	66	36.3	55	–			–			–		
3	26	19.5	40	52.6	26.9	38.6	62	32.5	48	68.3	36.2	54.3	84	45.5	70	99.7	54.8	85.7
4	35	26	53	43.6	20.4	25.6	53	26	35	59.3	29.7	41.3	75	39	57	90.7	48.3	72.7
DAPS-0090																		
1	30	22.5	45	–			–			–			–			–		
2	37.5	28.1	56.3	96.5	52.2	77.7	112.6	61.9	93.8	–			–			–		
3	45	33.9	67.5	88.9	46.8	66.4	105	56.5	82.5	115.7	63	93.2	142.5	79.1	120	169.3	95.2	146.8
4	60	45	90	73.9	35.4	43.9	90	45	60	100.7	51.4	70.7	127.5	67.5	97.5	154.3	83.6	124.3
DAPS-0120																		
1	40	30	60	–			–			–			–			–		
2	50	37.5	75	128.6	69.6	103.6	150	82.5	125	–			–			–		
3	60	45	90	118.6	62.1	88.6	140	75	110	154.3	83.6	124.3	190	105	160	225.7	126.4	195.7
4	80	60	120	98.6	47.1	58.6	120	60	80	134.3	68.6	94.3	170	90	130	205.7	111.4	165.7
DAPS_0180																		
1	60	45	90	–			–			–			–			–		
2	75	56.3	112.5	192.9	104.5	155.4	225	123.8	187.5	–			–			–		
3	90	67.5	135	177.9	93.2	132.9	210	112.5	165	231.4	125.4	186.4	285	157.5	240	338.6	189.6	293.6
4	120	90	180	147.9	70.7	87.9	180	90	120	201.4	102.9	141.4	255	135	195	308.6	167.1	248.6
DAPS_0240																		
1	80	60	120	–			–			–			–			–		
2	100	75	150	257.1	139.3	207.1	300	165	250	–			–			–		
3	120	90	180	237.1	124.3	177.1	280	150	220	308.6	167.1	248.6	380	210	320	451.4	252.9	391.4
4	160	120	240	197.1	94.3	117.1	240	120	160	268.6	137.1	188.6	340	180	260	411.4	222.9	331.4

Torque for size at 5.6 bar and swivel angle 0°

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				2.5			2.8			3			3.5			4.2		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0360																		
1	120	90	180	137.1	64.3	77.1	180	90	120	201.4	102.9	141.4	255	135	195	330	180	270
2	150	112.5	225	–			–			171.4	80.4	96.4	225	112.5	150	300	157.5	225
3	180	135	270	–			–			–			195	90	105	270	135	180
4	240	180	360	–			–			–			–			–		
DAPS-0480																		
1	160	120	240	182.9	85.7	102.9	240	120	160	268.6	137.1	188.6	340	180	260	440	240	360
2	200	150	300	–			–			228.6	107.1	128.6	300	150	200	400	210	300
3	240	180	360	–			–			–			260	120	140	360	180	240
4	320	240	480	–			–			–			–			–		
DAPS_0720																		
1	240	180	360	274.3	128.6	154.3	360	180	240	402.9	205.7	282.9	510	270	390	660	360	540
2	300	225	450	–			–			342.9	160.7	192.9	450	225	300	600	315	450
3	360	270	540	–			–			–			390	180	210	540	270	360
4	480	360	720	–			–			–			–			–		
DAPS_0960																		
1	320	240	480	366	171	206	480	240	320	537	274	377	680	360	520	880	480	720
2	400	300	600	–			–			457	214	257	600	300	400	800	420	600
3	480	360	720	–			–			–			520	240	280	720	360	480
4	640	480	960	–			–			–			–			–		

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Actual torque [Nm] as a function of operating pressure [bar], spring force and swivel angle [°]

Spring force	Spring torque [Nm]			Operating pressure [bar]														
				5			5.6			6			7			8		
	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°	0°	50°	90°
DAPS-0360																		
1	120	90	180	–			–			–			–			–		
2	150	112.5	225	385.7	208.9	310.7	450	247.5	375	–			–			–		
3	180	135	270	355.7	186.4	265.7	420	225	330	462.9	250.7	372.9	570	315	480	677.1	379.3	587.1
4	240	180	360	295.7	141.4	175.7	360	180	240	402.9	205.7	282.9	510	270	390	617.1	334.3	497.1
DAPS-0480																		
1	160	120	240	–			–			–			–			–		
2	200	150	300	514.3	278.6	414.3	600	330	500	–			–			–		
3	240	180	360	474.3	248.6	354.3	560	300	440	617.1	334.3	497.1	760	420	640	902.9	505.7	782.9
4	320	240	480	394.3	188.6	234.3	480	240	320	537.1	274.3	377.1	680	360	520	822.9	445.7	662.9
DAPS-0720																		
1	240	180	360	–			–			–			–			–		
2	300	225	450	771.4	417.9	621.4	900	495	750	–			–			–		
3	360	270	540	711.4	372.9	531.4	840	450	660	925.7	501.4	745.7	1140	630	960	1354	758.6	1174
4	480	360	720	591.4	282.9	351.4	720	360	480	805.7	411.4	565.7	1020	540	780	1234	668.6	994.3
DAPS_0960																		
1	320	240	480	–			–			–			–			–		
2	400	300	600	1029	557	829	1200	660	1000	–			–			–		
3	480	360	720	949	497	709	1120	600	880	1234	669	994	1520	840	1280	1806	1011	1566
4	640	480	960	789	377	469	960	480	640	1074	549	754	1360	720	1040	1646	891	1326

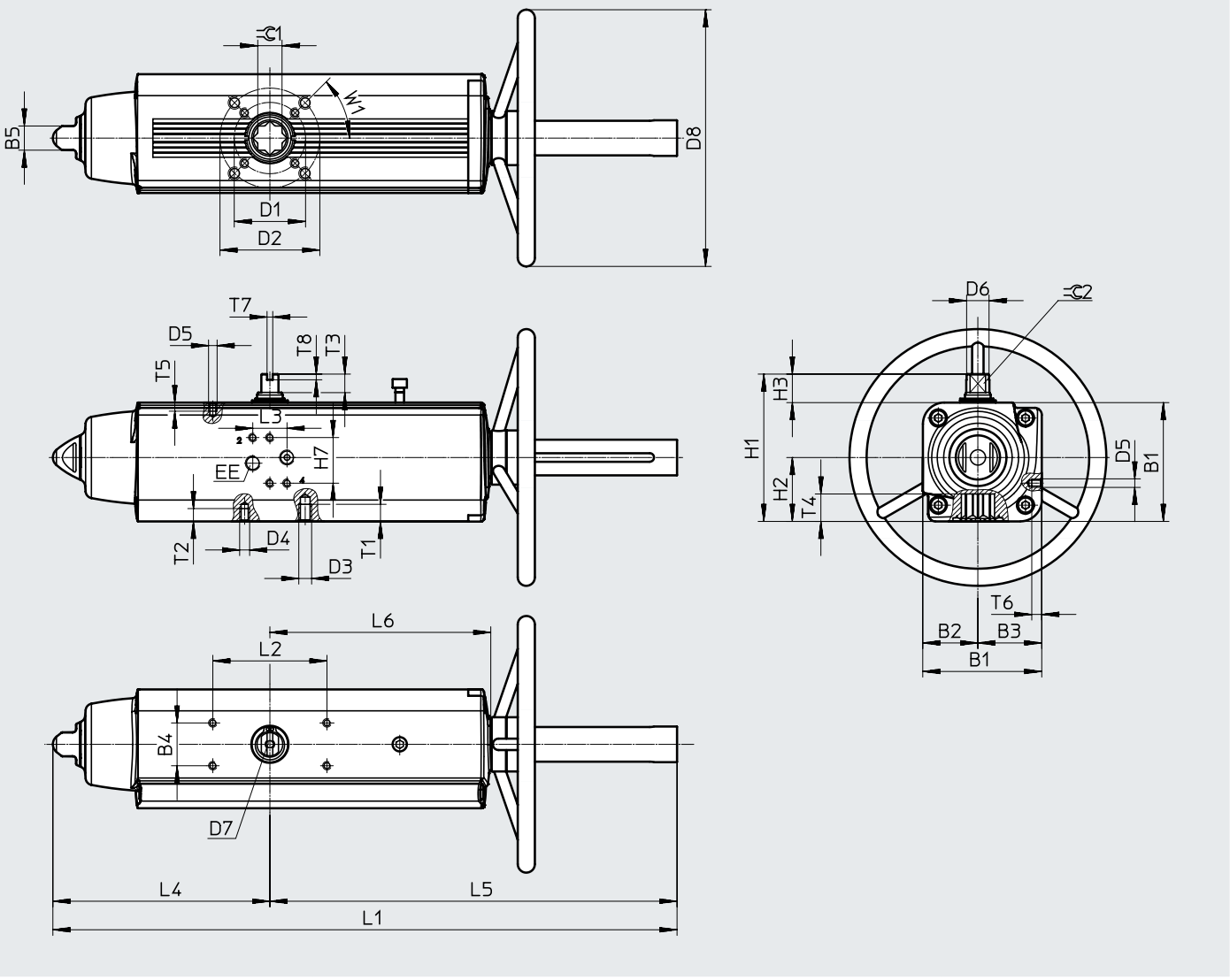
Torque for size at 5.6 bar and swivel angle 0°

Note

The operating torque of the actuator must not be greater than the maximum permissible torque listed in ISO 5211 in relation to the size of the mounting flange and of the coupling.

Data sheet

Dimensions Download CAD data ➔ www.festo.com



Data sheet

Size	B1	B2	B3	B4	B5	D1	D2	D3	D4	D5	D6	D7
	±0.4					Ø	Ø				Ø	
DAPS-0053-...-F0507-...	83.3	38.5	44.8	30	17	50	70	M8	M6	M5	16.2	M6x12
DAPS-0090-...-F0710-...	107.5	51	56.5	30	22	70	102	M10	M8	M5	20.2	M6x12
DAPS-0120-...-F0710-...	111.1	51	60.1	30	22	70	102	M10	M8	M5	22.5	M6x12
DAPS-0180-...-F0710-...	118	56	62	30	22	70	102	M10	M8	M5	25.5	M6x12
DAPS-0240-...-F1012-...	134.9	62	72.9	30	27	102	125	M12	M10	M5	29	M6x12
DAPS-0360-...-F1012-...	148	69.5	78.5	30	27	102	125	M12	M10	M5	31.8	M6x12
DAPS-0480-...-F1012-...	168	74.5	93.5	30	27	102	125	M12	M10	M5	36.5	M6x12
DAPS-0480-...-F14-...	168	74.5	93.5	30	27	–	140	M16	–	M5	36.5	M6x12
DAPS-0720-...-F12-...	186	84.5	101.5	30	36	–	125	M12	–	M5	41	M6x12
DAPS-0720-...-F14-...	186	84.5	101.5	30	36	–	140	M16	–	M5	41	M6x12
DAPS-0960-...-F14-...	207.7	93	114.7	30	36	–	140	M16	–	M5	46	M6x12
DAPS-0960-...-F1216-...	207.7	93	114.7	30	36	125	165	M20	M12	M5	46	M6x12

Size	D8	EE	H1	H2	H3	H7	L1	L2	L3	L4	L5	L6
	Ø						±2					
DAPS-0053-...-F0507-...	180	G1/8	103.3	44.8	20±0.4	32	437.5	80	24	152.1	279.3	154.8
DAPS-0090-...-F0710-...	220	G1/8	137.5	56.5	30±0.4	32	545.1	80	24	196.8	338.1	183.5
DAPS-0120-...-F0710-...	220	G1/8	141.1	60.1	30±0.4	32	568.6	80	24	204.8	353.7	199.1
DAPS-0180-...-F0710-...	300	G1/8	148	62	30±0.4	32	646.1	80	24	237	398	220.8
DAPS-0240-...-F1012-...	300	G1/4	164.9	72.9	30±0.4	32	685.2	80	24	260.2	440.6	236.4
DAPS-0360-...-F1012-...	350	G1/4	178	78.5	30±0.4	32	822.8	80	24	306.6	503.5	282.3
DAPS-0480-...-F1012-...	350	G1/4	198	93.5	30±0.5	32	854.6	80	24	324.1	518.3	297.1
DAPS-0480-...-F14-...	350	G1/4	198	93.5	30±0.5	32	854.6	80	24	324.1	518.3	297.1
DAPS-0720-...-F12-...	400	G1/4	216	101.5	30±0.5	32	1052.4	80	24	399	636.4	365.6
DAPS-0720-...-F14-...	400	G1/4	216	101.5	30±0.5	32	1052.4	80	24	399	636.4	365.6
DAPS-0960-...-F14-...	400	G1/4	237.7	114.7	30±0.8	32	1084	80	24	414	653.7	382.9
DAPS-0960-...-F1216-...	400	G1/4	237.7	114.7	30±0.8	32	1084	80	24	414	653.7	382.9

Size	T1	T2	T3	T4	T5	T6	T7	T8	⌯ 1	⌯ 2	W1
							+0.1	+0.3	H11	h11	
DAPS-0053-...-F0507-...	12	9	13	19.3±0.4	6	7	4	4	17	12	45°
DAPS-0090-...-F0710-...	15	12	16	24.8±0.4	6	7	4	4	22	15	45°
DAPS-0120-...-F0710-...	15	12	17	24.8±0.4	6	7	4	4	22	15	45°
DAPS-0180-...-F0710-...	15	12	19	24.3±0.4	6	7	4	4	22	19	45°
DAPS-0240-...-F1012-...	18	15	19	29.5±0.4	6	7	4	4	27	19	45°
DAPS-0360-...-F1012-...	18	15	19.5	29.5±0.4	6	7	4	4	27	22	45°
DAPS-0480-...-F1012-...	18	15	19.5	38.5±0.5	6	7	4	4	36	24	45°
DAPS-0480-...-F14-...	24	–	19.5	38.5±0.5	6	7	4	4	36	24	45°
DAPS-0720-...-F12-...	18	–	19.5	38.5±0.5	6	7	4	4	36	27	45°
DAPS-0720-...-F14-...	24	–	19.5	38.5±0.5	6	7	4	4	36	27	45°
DAPS-0960-...-F14-...	24	–	18.5	48.5±0.8	6	7	4	4	46	32	45°
DAPS-0960-...-F1216-...	30	18	18.5	48.5±0.8	6	7	4	4	46	32	45°

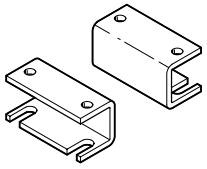
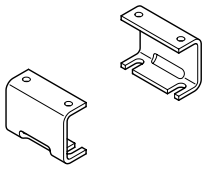
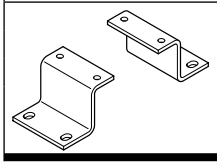
Data sheet

Ordering data – Single-acting

Part no.	Type
Size 0053	
8005026	DAPS-0053-090-RS1-F0507-MW
8005027	DAPS-0053-090-RS2-F0507-MW
8005028	DAPS-0053-090-RS3-F0507-MW
8005029	DAPS-0053-090-RS4-F0507-MW
Size 0090	
8005030	DAPS-0090-090-RS1-F0710-MW
8005031	DAPS-0090-090-RS2-F0710-MW
8005032	DAPS-0090-090-RS3-F0710-MW
8005033	DAPS-0090-090-RS4-F0710-MW
Size 0120	
8005034	DAPS-0120-090-RS1-F0710-MW
8005035	DAPS-0120-090-RS2-F0710-MW
8005036	DAPS-0120-090-RS3-F0710-MW
8005037	DAPS-0120-090-RS4-F0710-MW
Size 0180	
8005038	DAPS-0180-090-RS1-F0710-MW
8005039	DAPS-0180-090-RS2-F0710-MW
8005040	DAPS-0180-090-RS3-F0710-MW
8005041	DAPS-0180-090-RS4-F0710-MW
Size 0240	
8005042	DAPS-0240-090-RS1-F1012-MW
8005043	DAPS-0240-090-RS2-F1012-MW
8005044	DAPS-0240-090-RS3-F1012-MW
8005045	DAPS-0240-090-RS4-F1012-MW
Size 0360	
8005046	DAPS-0360-090-RS1-F1012-MW
8005047	DAPS-0360-090-RS2-F1012-MW
8005048	DAPS-0360-090-RS3-F1012-MW
8005049	DAPS-0360-090-RS4-F1012-MW
Size 480	
8005050	DAPS-0480-090-RS1-F1012-MW
8005051	DAPS-0480-090-RS1-F14-MW
8005052	DAPS-0480-090-RS2-F1012-MW
8005053	DAPS-0480-090-RS2-F14-MW
8005054	DAPS-0480-090-RS3-F1012-MW
8005055	DAPS-0480-090-RS3-F14-MW
8005056	DAPS-0480-090-RS4-F1012-MW
8005057	DAPS-0480-090-RS4-F14-MW
Size 0720	
8005058	DAPS-0720-090-RS1-F12-MW
8005059	DAPS-0720-090-RS1-F14-MW
8005060	DAPS-0720-090-RS2-F12-MW
8005061	DAPS-0720-090-RS2-F14-MW
8005062	DAPS-0720-090-RS3-F12-MW
8005063	DAPS-0720-090-RS3-F14-MW
8005064	DAPS-0720-090-RS4-F12-MW
8005065	DAPS-0720-090-RS4-F14-MW
Size 0960	
8005067	DAPS-0960-090-RS1-F1216-MW
8005066	DAPS-0960-090-RS1-F14-MW
8005069	DAPS-0960-090-RS2-F1216-MW
8005068	DAPS-0960-090-RS2-F14-MW
8005071	DAPS-0960-090-RS3-F1216-MW
8005070	DAPS-0960-090-RS3-F14-MW
8005073	DAPS-0960-090-RS4-F1216-MW
8005072	DAPS-0960-090-RS4-F14-MW

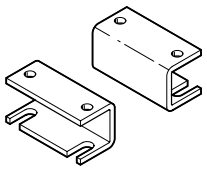
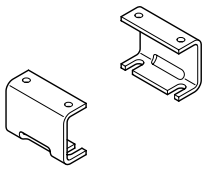
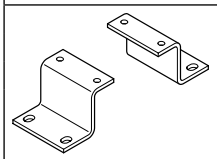
Accessories

Ordering data – Adapter kits for mounting the sensor boxes SRAP

	Size	Dimensions [mm]	CRC[1]	Part no.	Type
DAPS – Double-acting					
	DAPS-0015- ... -F03	20x30x80	3	**568275**	**DASB-P1-HA-SB**
	DAPS-0015- ... -F04				
	DAPS-0030- ... -F0305				
	DAPS-0030- ... -F04				
	DAPS-0060- ... -F04				
	DAPS-0060- ... -F0507				
	DAPS-0106- ... -F0507				
	DAPS-0180- ... -F0710	30x30x80		**572418**	**DASB-P1-HB-SB**
	DAPS-0240- ... -F0710				
	DAPS-0360- ... -F0710				
	DAPS-0480- ... -F1012				
	DAPS-0720- ... -F1012				
	DAPS-0960- ... -F12				
	DAPS-0960- ... -F14				
	DAPS-1440- ... -F12				
	DAPS-1440- ... -F14				
	DAPS-1920- ... -F14				
	DAPS-1920- ... -F1216				
	DAPS-2880- ... -F16	30x30x130		**572419**	**DASB-P1-HC-SB**
	DAPS-3840- ... -F16				
	DAPS-5760- ... -F25				
	DAPS-8000- ... -F25				

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Ordering data – Adapter kits for mounting the sensor boxes SRAP

	Size	Dimensions [mm]	CRC[1]	Part no.	Type
DAPS – Single-acting					
	DAPS-0015- ... -F0305	20x30x80	3	**568275**	**DASB-P1-HA-SB**
	DAPS-0015- ... -F04				
	DAPS-0030- ... -F04				
	DAPS-0030- ... -F0507				
	DAPS-0053- ... -F0507				
	DAPS-0090- ... -F0710	30x30x80		**572418**	**DASB-P1-HB-SB**
	DAPS-0120- ... -F0710				
	DAPS-0180- ... -F0710				
	DAPS-0240- ... -F1012				
	DAPS-0360- ... -F1012				
	DAPS-0480- ... -F12				
	DAPS-0480- ... -F14				
	DAPS-0720- ... -F12				
	DAPS-0720- ... -F14				
	DAPS-0960- ... -F14				
	DAPS-0960- ... -F1216				
	DAPS-1440- ... -F16	30x30x130		**572419**	**DASB-P1-HC-SB**
	DAPS-1920- ... -F16				
	DAPS-2880- ... -F16				
	DAPS-4000- ... -F25				

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
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