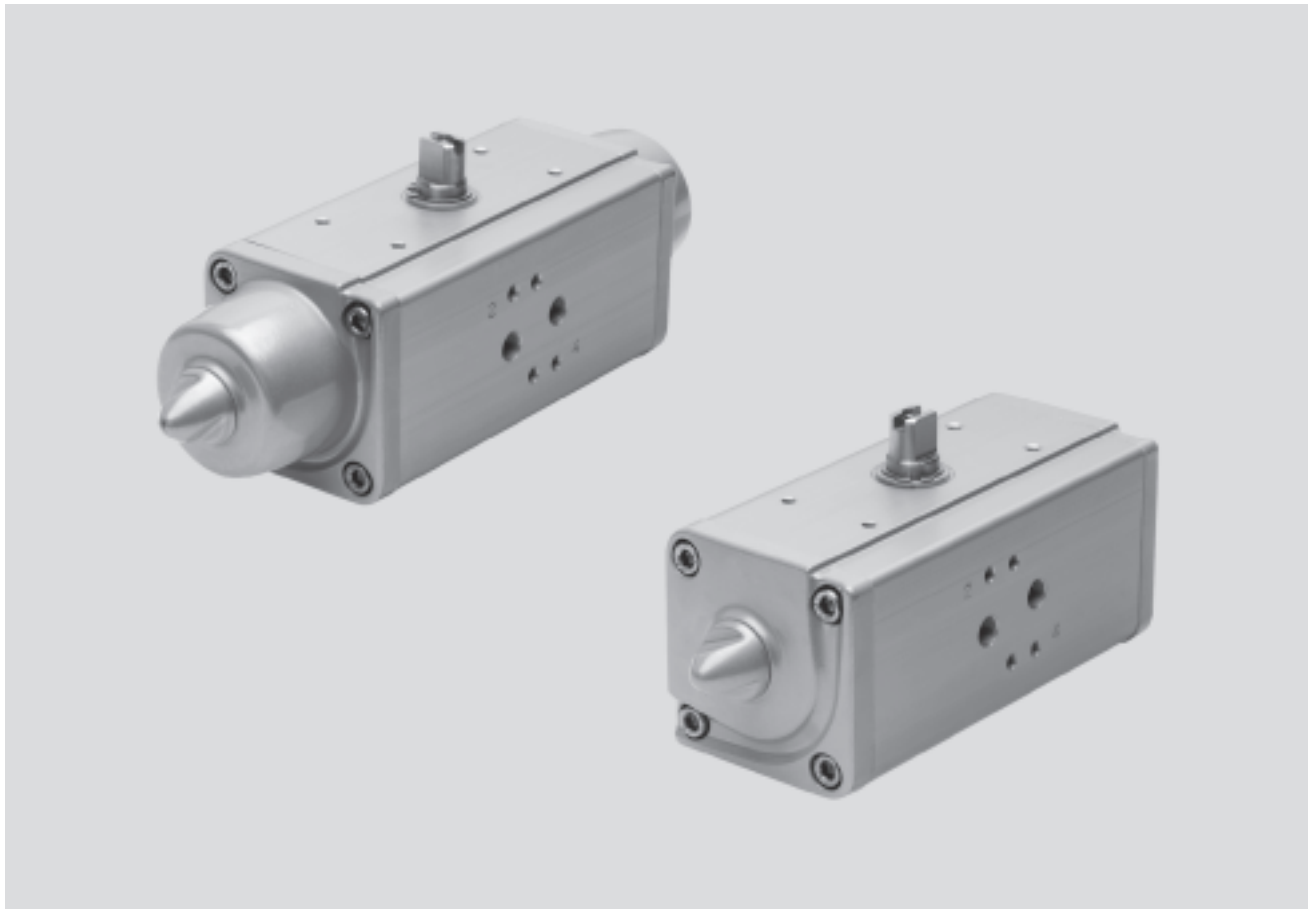





Quarter turn actuators DAPS

Key features



-  - Size
0008 ... 5760
-  - Torque
8 ... 5,760 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. This is advantageous for overcoming the valve's high breakaway torques. Given their robustness and graduated torques, the DAPS quarter turn actuators are predominantly used to control valves through which various media flow and whose angle of rotation is limited to 90°, e.g. ball valves and butterfly valves.

- Compact design
- Torque characteristics matched to the process valves
- For the same housing size, the single-acting drive has half the torque of the double-acting drive
- Low wearing thanks to the simple and robust mechanical system
- Adjustable swivel angle
- Selected types acc. to ATEX directive for explosive atmospheres
→ www.festo.com/en/ex

- Port pattern to Namur VDI/VDE 3845 for attaching solenoid valves



Quarter turn actuators DAPS, double-acting

Product range overview



Actuators
Quarter turn actuators

1.2

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 height
Square	V11	V11	V11	V14	V11	V14	V17	V14	V17	
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 accessories	30	30	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	F12	F12	F14	F14	F16	F16	F25	Shaft height
Square	V22	V22	V27	V27	V36	V46	V36	V46	V46	V46	V55	
DAPS-0180-...-F0710	■	■	-	-	-	-	-	-	-	-	-	30
DAPS-0240-...-F0710	■	■	-	-	-	-	-	-	-	-	-	30
DAPS-0360-...-F0710	■	■	-	-	-	-	-	-	-	-	-	30
DAPS-0480-...-F1012	-	-	■	■	-	-	-	-	-	-	-	30
DAPS-0720-...-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
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	130	130	

Quarter turn actuators DAPS, single-acting

Product range overview

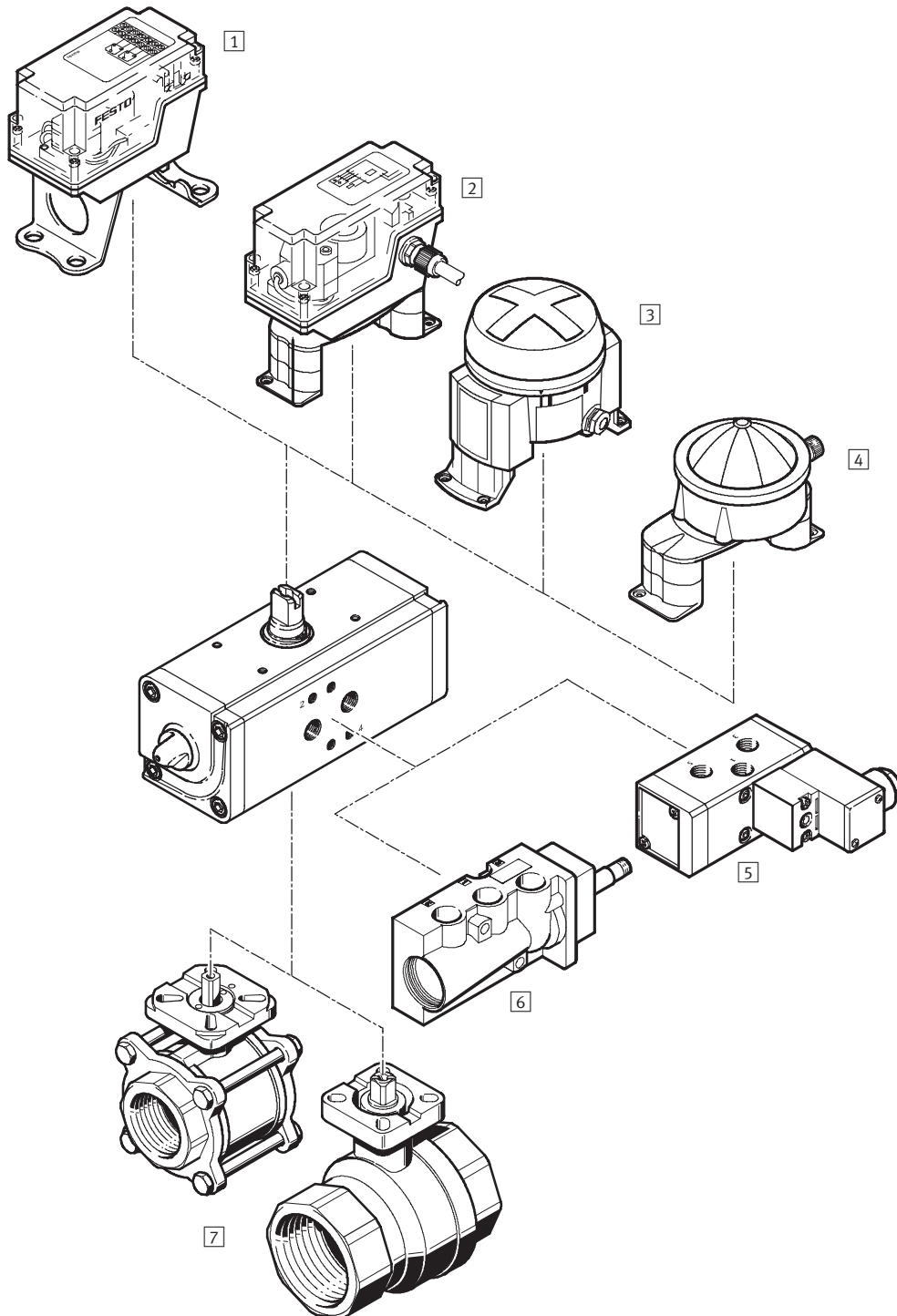


Flange hole pattern – Connection dimensions to DIN ISO 5211 and Namur VDI/VDE 3845										
Connection	F03	F04	F04	F05	F05	F05	F07	F07		Shaft height
Square	V11	V11	V14	V11	V14	V17	V14	V17		
DAPS-0015-...-F0305	■	-	-	■	-	-	-	-	-	20
DAPS-0015-...-F04	-	■	-	-	-	-	-	-	-	20
DAPS-0030-...-F04	-	-	■	-	-	-	-	-	-	20
DAPS-0030-...-F0507	-	-	-	-	■	-	■	-	-	20
DAPS-0053-...-F0507	-	-	-	-	-	■	-	■	-	20
Hole pattern for Namur accessories	30	30	30	30	30	30	30	30	30	
	80	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	F12	F12	F14	F14	F16	F16	Shaft height
Square	V22	V22	V27	V27	V36	V46	V36	V46	V46	V46	
DAPS-0090-...-F0710	■	■	-	-	-	-	-	-	-	-	30
DAPS-0120-...-F0710	■	■	-	-	-	-	-	-	-	-	30
DAPS-0180-...-F0710	■	■	-	-	-	-	-	-	-	-	30
DAPS-0240-...-F1012	-	-	■	■	-	-	-	-	-	-	30
DAPS-0360-...-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
Hole pattern for Namur accessories	30	30	30	30	30	30	30	30	30	30	
	80	80	80	80	80	80	80	80	80	130	

Quarter turn actuators DAPS

Peripherals overview



Quarter turn actuators DAPS

Peripherals overview

Mounting attachments and accessories		
	Brief description	→ Page
1	End-position sensing attachment QH-DR-E Square design Pneumatic, electrical or inductive sensing	104
2	End-position sensing attachment DAPZ Square design Electrical, electrically explosion-proof or inductive sensing	97
3	End-position sensing attachment DAPZ Round design, variant AR Electrical, inductive or inductively explosion-proof sensing	101
4	End-position sensing attachment DAPZ Round design, variant RO Electrical, inductive or inductive Namur sensing	99
5	Solenoid valve MFH Basic valve with pilot control valve for F solenoid coil	10
	Solenoid valve MN1H Basic valve with pilot control valve for N1 solenoid coil	10
	Solenoid valve MGTBH Basic valve with pilot control valve, solenoid coil and socket	10
6	Solenoid valve NVF3 For F solenoid coil and explosion-proof F solenoid coil	4
7	Ball valve VAPB Brass or stainless steel, corrosion-resistant	2

Quarter turn actuators DAPS

Type codes



DAPS – 0240 – 090 – R S 4 – F10 12

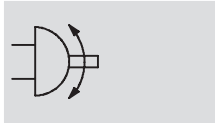
Type	
DAPS	Quarter turn actuators
Size	
0008	Nominal torque 8 Nm
0015	Nominal torque 15 Nm
0030	Nominal torque 30 Nm
0053	Nominal torque 53 Nm
0060	Nominal torque 60 Nm
0090	Nominal torque 90 Nm
0106	Nominal torque 106 Nm
0120	Nominal torque 120 Nm
0180	Nominal torque 180 Nm
0240	Nominal torque 240 Nm
0360	Nominal torque 360 Nm
0480	Nominal torque 480 Nm
0720	Nominal torque 720 Nm
0960	Nominal torque 960 Nm
1440	Nominal torque 1,440 Nm
1920	Nominal torque 1,920 Nm
2880	Nominal torque 2,880 Nm
3840	Nominal torque 3,840 Nm
5760	Nominal torque 5,760 Nm
Swivel angle	
090	90°
Closing direction	
R	Closes to right
Mode of operation	
	Double-acting
S	Single-acting
Spring strength	
	Omitted for double-acting
1	For connection pressure 2.8 bar
2	For connection pressure 3.5 bar
3	For connection pressure 4.2 bar
4	For connection pressure 5.6 bar
1st flange hole pattern	
F03	Flange hole pattern F03
F04	Flange hole pattern F04
F05	Flange hole pattern F05
F07	Flange hole pattern F07
F10	Flange hole pattern F10
F12	Flange hole pattern F12
F14	Flange hole pattern F14
F16	Flange hole pattern F16
F25	Flange hole pattern F25
2nd flange hole pattern	
05	Flange hole pattern F05
07	Flange hole pattern F07
10	Flange hole pattern F10
12	Flange hole pattern F12
16	Flange hole pattern F16


Quarter turn actuators DAPS, double-acting

Technical data


FESTO


Function



 Swivel angle
0 ... 90°



 Size
0008 ... 5760

 Torque
8 ... 5,760 Nm

General technical data			
Size	0015 ... 0360	0480 ... 1920	2880 ... 5760
Pneumatic connection	G1/8	G1/4	G3/8
Design	Scotch yoke mechanism, double-acting		
Mounting position	Any		
Swivel angle	[°]	90	
End position adjustment range at 90°	[°]	±5	
Closing direction	Closes to right		

Operating and environmental conditions		
Operating pressure ¹⁾	[bar]	1 ... 8.4
Operating medium	Dried compressed air, lubricated or unlubricated	
Ambient temperature	[°C]	-20 ... +80
Atex specification	II 2 GD c X	
Atex ambient temperature	-20°C ≤ Ta ≤ +60°C	
Corrosion resistance class CRC ²⁾	3	

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

2) Corrosion resistance class 3 to Festo standard 940 070

Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Air consumption [l/cycle] at 6 bar			
Size		Size	
DAPS-0008	0.4	DAPS-0480	24
DAPS-0015	0.72	DAPS-0720	24.5
DAPS-0030	1.44	DAPS-0960	48
DAPS-0060	3	DAPS-1440	53.2
DAPS-0106	5.04	DAPS-1920	96
DAPS-0180	8.64	DAPS-2880	140
DAPS-0240	12	DAPS-3840	170.1
DAPS-0360	17.4	DAPS-5760	266

Quarter turn actuators DAPS, double-acting

Technical data

Weights [kg]		Weights [kg]	
Size		Size	
DAPS-0008	0.3	DAPS-0480	8.2
DAPS-0015	0.75	DAPS-0720	12.2
DAPS-0030	1	DAPS-0960	17.4
DAPS-0060	1.9	DAPS-1440	23.0
DAPS-0106	2.3	DAPS-1920	30.7
DAPS-0180	4.1	DAPS-2880	55
DAPS-0240	5.2	DAPS-3840	49
DAPS-0360	6.2	DAPS-5760	85

Materials	
Semi-rotary drives	
Housing	Wrought aluminium alloy
End cap	Wrought aluminium alloy
Shaft	Stainless steel
External screws	Stainless steel
Seals	Nitrile rubber

Quarter turn actuators DAPS, double-acting

Technical data

FESTO

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
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	1,027.2
	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	1,028.6	1,200	1,371.4
	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	1,028.6
DAPS-1440	0	642.8	768	1,027.2	1,286.4	1,440	1,545.6	1,804.8	2,057.4
	50	321.4	384	518.4	643.2	720	768	902.4	1,059.2
	90	482.1	576	777.6	969.9	1,080	1,161.6	1,353.6	1,545.6
DAPS-1920	0	857.1	1,028.6	1,371.4	1,714.3	1,920	2,057.1	2,400	2,742.9
	50	428.6	514.3	685.8	857.1	960	1,028.6	1,200	1,371.4
	90	642.9	771.4	1,028.6	1,285.7	1,440	1,542.9	1,800	2,057.1
DAPS-2880	0	1,285	1,542	2,057	2,571	2,880	3,085	3,600	4,114
	50	642	771	1,028	1,285	1,440	1,542	1,800	2,057
	90	856	1,028	1,371	1,741	1,920	2,056	2,400	2,742
DAPS-3840	0	1,714	2,057	2,743	3,428	3,840	4,114	4,800	5,485
	50	857	1,028	1,371	1,714	1,920	2,057	2,400	2,742
	90	1,285	1,543	2,057	2,571	2,880	3,085	3,600	4,114
DAPS-5760	0	2,571	3,085	4,114	5,142	5,760	6,171	7,200	8,228
	50	1,285	1,542	2,057	2,571	2,880	3,085	3,600	4,141
	90	1,928	2,313	3,085	3,856	4,320	4,628	5,400	6,171

Torque for size at 5.6 bar and swivel angle 0°

Quarter turn actuators DAPS, double-acting

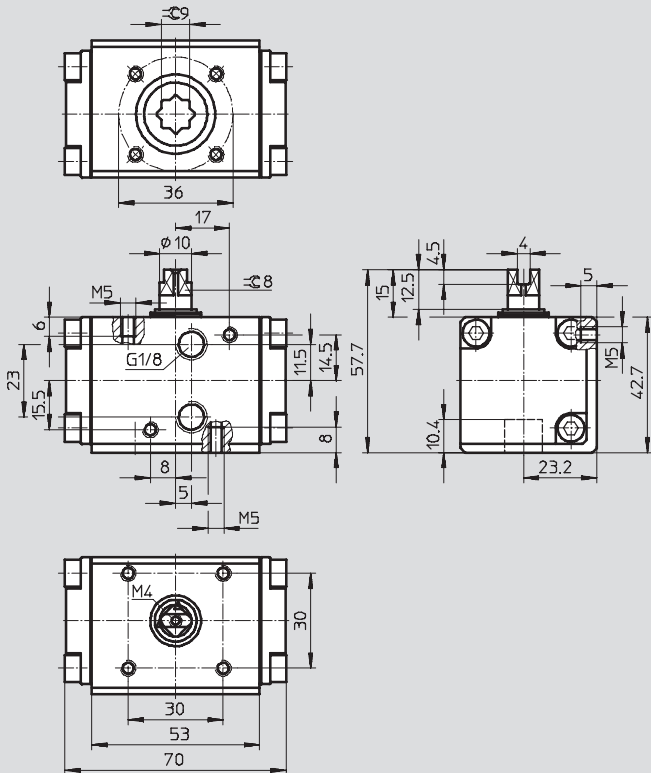
Technical data

FESTO

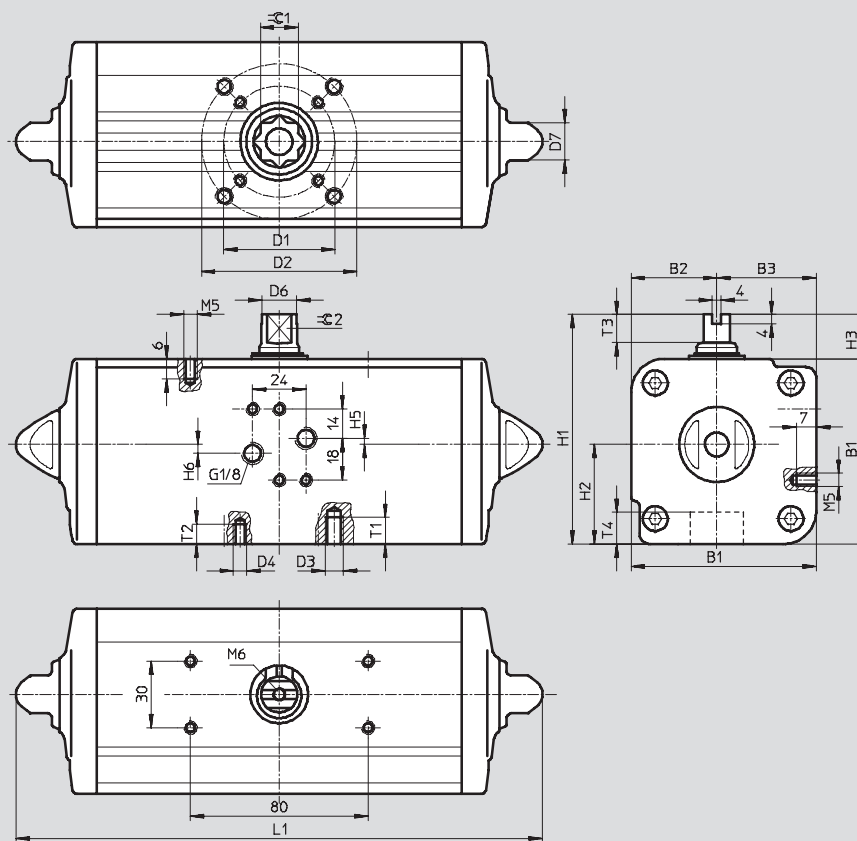
Dimensions

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Size 0008



Size 0015 ... 0360



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, double-acting



Technical data

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

Size	H3	H5	H6	L1	T1	T2	T3	T4	∅ 1	∅ 2
DAPS-0015-...-F03	20	0.8	3.2	159	-	8	10	13.2	11	8
DAPS-0015-...-F04						8				
DAPS-0030-...-F0305	20	0.8	3.2	174	9	8	10	13.2	11	9
DAPS-0030-...-F04					-	8				
DAPS-0060-...-F04	20	-	4	198	-	8	13	16.5	14	10
DAPS-0060-...-F0507					12	9				
DAPS-0106-...-F0507	20	-	4	236.5	12	9	13	19.3	17	12
DAPS-0180-...-F0710	30	-	4	289.9	15	12	16	24.8	22	15
DAPS-0240-...-F0710	30	-	4	313.6	15	12	17	24.8	22	15
DAPS-0360-...-F0710	30	-	4	339.3	15	12	19	24.3	22	19

Quarter turn actuators DAPS, double-acting

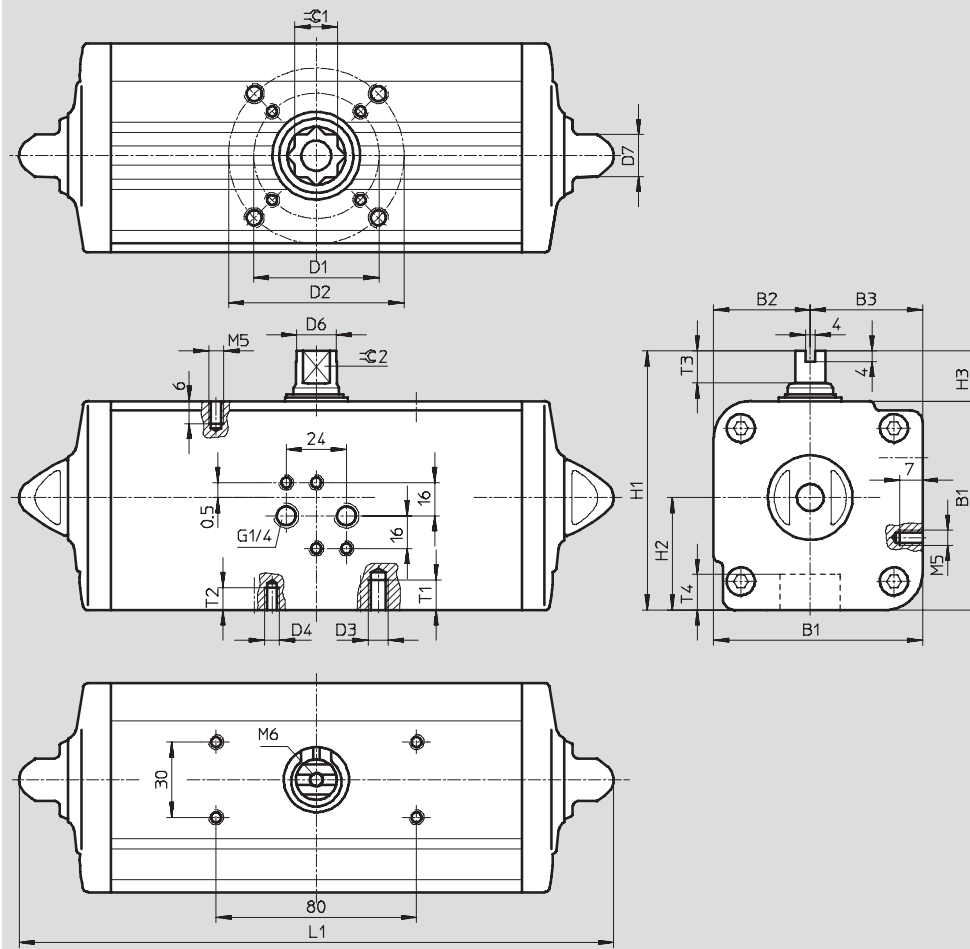
Technical data



Dimensions

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Size 0480 ... 1920



Size	B1	B2	B3	D1 ∅ ±0.1	D2 ∅ ±0.1	D3	D4	D6 ∅	D7 ∅	H1
DAPS-0480-...-F1012	134.9	62	72.9	102	125	M12	M10	29	27	164.9
DAPS-0720-...-F1012	148	-	-	102	125	M12	M10	31.8	27	178
DAPS-0960-...-F12	168	74.5	93.5	125	-	-	M12	36.5	27	198
DAPS-0960-...-F14				140	-	-	M16			
DAPS-1440-...-F12	168	-	-	125	-	-	M12	41	36	216
DAPS-1440-...-F14				140			M16			
DAPS-1920-...-F14	207.7	93	114.7	140	-	-	M16	46	36	237.7
DAPS-1920-...-F1216				125			165			

Size	H2	H3	H5	L1	T1	T2	T3	T4	∅C1	∅C2
DAPS-0480-...-F1012	72.9	30	0.5	387.7	15	18	19	29.5	27	19
DAPS-0720-...-F1012	78.5	30	-1	433	18	15	19.5	29	27	22
DAPS-0960-...-F12	93.5	30	0.5	479.4	-	18	19.5	38.5	36	24
DAPS-0960-...-F14						24				
DAPS-1440-...-F12	101.5	30	-1	567	-	18	19.5	38.5	36	27
DAPS-1440-...-F14						24				
DAPS-1920-...-F14	114.7	30	0.5	601	-	24	18.5	48.5	46	32
DAPS-1920-...-F1216					30	18				

Quarter turn actuators DAPS, double-acting

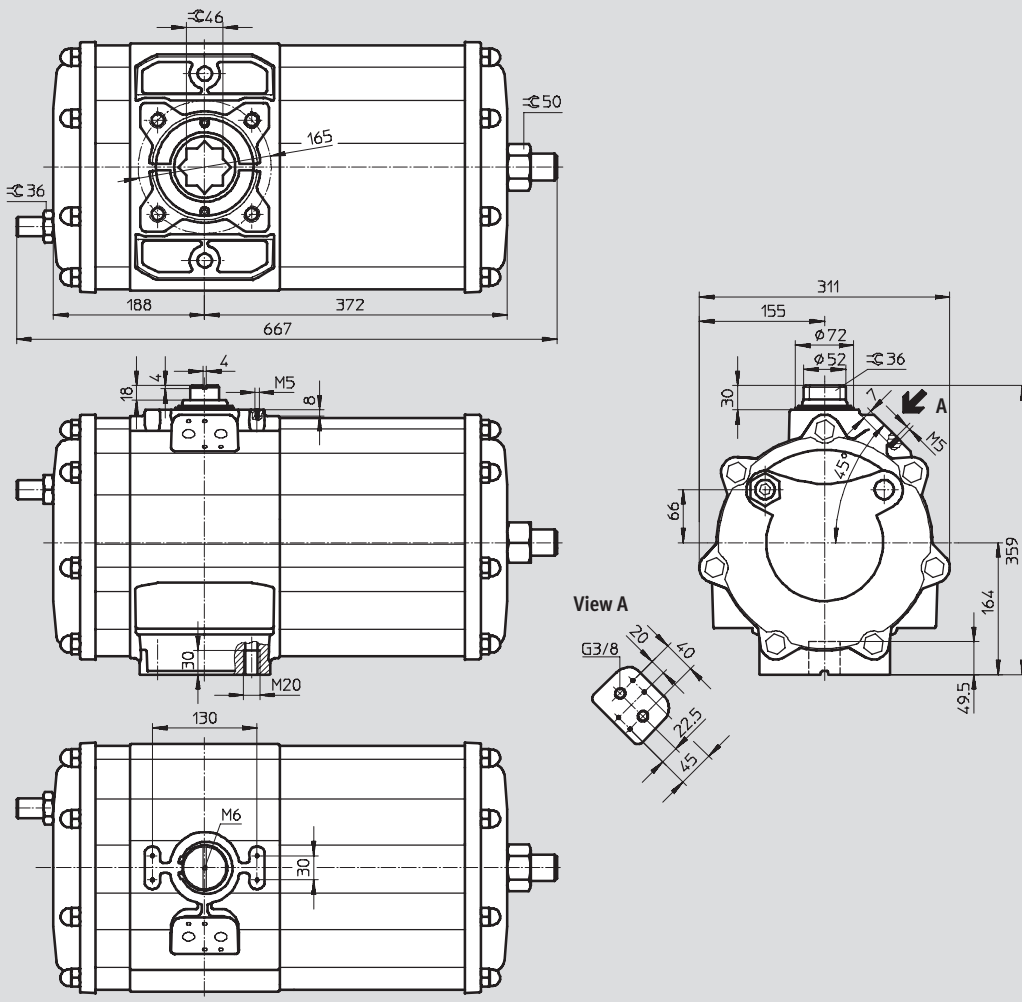
Technical data



Dimensions

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Size 2880



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, double-acting

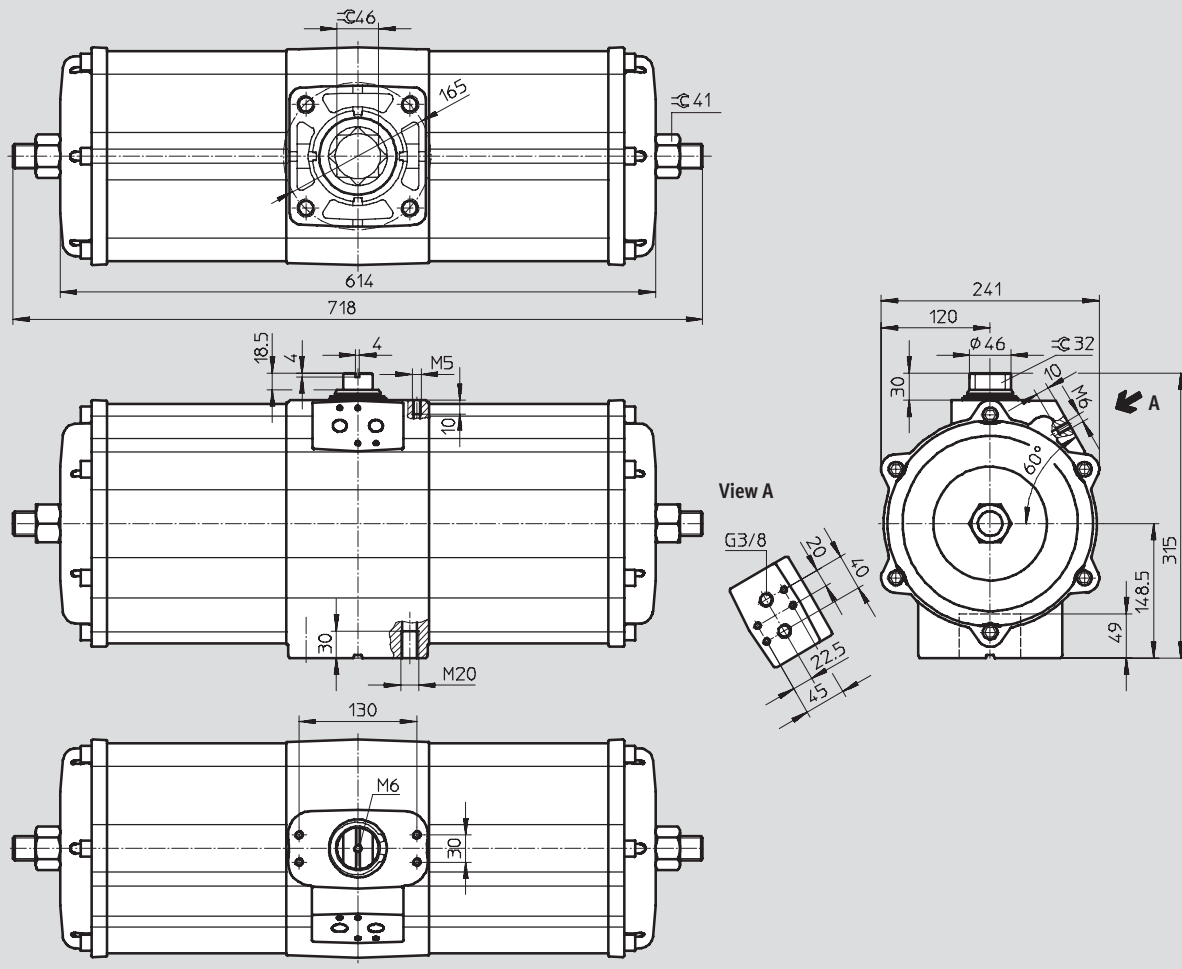
Technical data



Dimensions

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Size 3840



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, double-acting

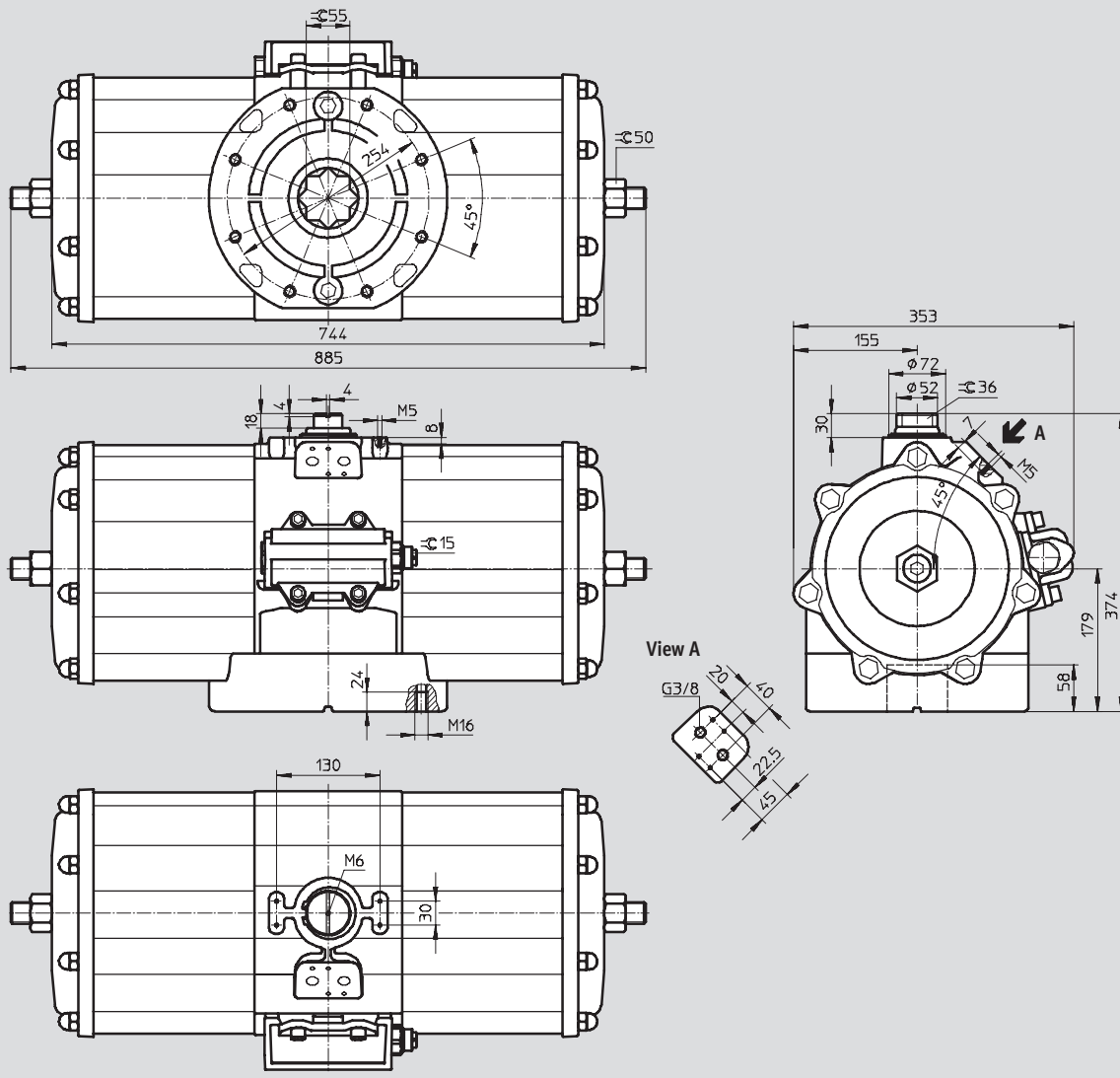
Technical data



Dimensions

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Size 5760



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, double-acting

Technical data



Actuators
Quarter turn actuators

1.2

Ordering data – Drives		Ordering data – Drives	
Part No.	Type	Part No.	Type
Size 0008		Size 0480	
549 666	DAPS-0008-090-R-F03	533 424	DAPS-0480-090-R-F1012
Size 0015		Size 0720	
533 417	DAPS-0015-090-R-F03	549 667	DAPS-0720-090-R-F1012
533 475	DAPS-0015-090-R-F04	Size 0960	
Size 0030		533 425	DAPS-0960-090-R-F12
533 418	DAPS-0030-090-R-F0305	533 478	DAPS-0960-090-R-F14
533 476	DAPS-0030-090-R-F04	Size 1440	
Size 0060		549 668	DAPS-1440-090-R-F12
533 419	DAPS-0060-090-R-F04	549 669	DAPS-1440-090-R-F14
533 477	DAPS-0060-090-R-F0507	Size 1920	
Size 0106		533 426	DAPS-1920-090-R-F14
533 420	DAPS-0106-090-R-F0507	533 479	DAPS-1920-090-R-F1216
Size 0180		Size 2880	
533 421	DAPS-0180-090-R-F0710	549 670	DAPS-2880-090-R-F16
Size 0240		Size 3840	
533 422	DAPS-0240-090-R-F0710	549 671	DAPS-3840-090-R-F16
Size 0360		Size 5760	
533 423	DAPS-0360-090-R-F0710	549 672	DAPS-5760-090-F25

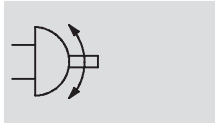
Ordering data – Wearing parts kits		Ordering data – Wearing parts kits	
Part No.	Type	Part No.	Type
Size 0015		Size 0240	
397 470	DAPS-0015	397 475	DAPS-0240/S0120
Size 0030		Size 0360	
397 471	DAPS-0030/S0015	397 476	DAPS-0360/S0180
Size 0060		Size 0480	
397 472	DAPS-0060/S0030	397 477	DAPS-0480/S0240
Size 0106		Size 0960	
397 473	DAPS-0106/S0053	397 478	DAPS-0960/S0480
Size 0180		Size 1920	
397 474	DAPS-0180/S0090	397 479	DAPS-1920/S0960


Quarter turn actuators DAPS, single-acting

Technical data

FESTO

Function



 Swivel angle
0 ... 90°



 Size
0015 ... 2880

 Torque
15 ... 2,880 Nm

General technical data			
Size	0015 ... 0180	0240 ... 0960	1440 ... 2880
Pneumatic connection	G1/8	G1/4	G3/8
Design	Scotch yoke mechanism, single-acting		
Mounting position	Any		
Swivel angle [°]	90		
End-position adjusting range at 90° [°]	±5		
Closing direction	Closes to right		

Operating and environmental conditions		
Operating pressure ¹⁾ [bar]	1 ... 8.4	
Operating medium	Dried compressed air, lubricated or unlubricated.	
Ambient temperature [°C]	-20 ... +80	
Atex specification	II 2 GD c X	
Atex ambient temperature	-20°C ≤ Ta ≤ +60°C	
Corrosion resistance class CRC ²⁾	3	

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

2) Corrosion resistance class 3 to Festo standard 940 070

Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Air consumption [l/cycle] at 6 bar	
Size	
DAPS-0015	0.72
DAPS-0030	1.44
DAPS-0053	2.16
DAPS-0090	4.32
DAPS-0120	6
DAPS-0180	8.64
DAPS-0240	12
DAPS-0360	14
DAPS-0480	24
DAPS-0720	29.4
DAPS-0960	48
DAPS-1440	77
DAPS-1920	87.5
DAPS-2880	147

Weights [kg]	
Size	
DAPS-0015	1.3
DAPS-0030	2.2
DAPS-0053	3.2
DAPS-0090	5.4
DAPS-0120	6.9
DAPS-0180	8.7
DAPS-0240	11
DAPS-0360	16.4
DAPS-0480	23.3
DAPS-0720	32
DAPS-960	41.4
DAPS-1440	60
DAPS-1920	67
DAPS-2880	112

Materials	
Housing	Wrought aluminium alloy
End cap	Wrought aluminium alloy
Shaft	Stainless steel
External screws	Stainless steel
Seals	Nitrile rubber

Quarter turn actuators DAPS, single-acting



Technical data

Actuators
Quarter turn actuators

1.2

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

Quarter turn actuators DAPS, single-acting

Technical data

FESTO

Actual torque [Nm] as a function of operating pressure [bar], spring strength and swivel angle [°]															
Spring strength	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	130.6	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	86.7	40	46.7	106.7	52	66.7	120	60	80	153.3	80	113.3	186.7	100	146.7
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	70.7	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

Nominal torque for size at 5.6 bar and swivel angle 0°

Quarter turn actuators DAPS, single-acting



Technical data

Actuators
Quarter turn actuators

1.2

Actual torque [Nm] as a function of operating pressure [bar], spring strength and swivel angle [°]																		
Spring strength	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	1,020	540	780	1,320	720	1,080
2	600	450	900	-	-	-	-	-	-	685	321	385	900	450	600	1,200	630	900
3	720	540	1,080	-	-	-	-	-	-	-	-	-	780	360	420	1,080	540	720
4	960	720	1,440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DAPS-1920																		
1	640	480	960	778	377	468	960	480	640	1,074	548	754	1,360	720	1,040	1,760	960	1,440
2	800	600	1,200	-	-	-	-	-	-	914	428	514	1,200	600	800	1,600	840	1,200
3	960	720	1,440	-	-	-	-	-	-	-	-	-	1,040	480	560	1,440	720	960
4	1,280	960	1,920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DAPS-2880																		
1	960	720	1,440	1,183	566	703	1,440	720	960	1,611	823	1,131	2,040	1,080	1,560	2,640	1,440	2,160
2	1,200	900	1,800	-	-	-	-	-	-	1,370	643	771	1,800	900	1,200	2,400	1,260	1,800
3	1,440	1,080	2,160	-	-	-	-	-	-	-	-	-	1,560	720	840	2,160	1,080	1,440
4	1,920	1,440	2,880	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Quarter turn actuators DAPS, single-acting

Technical data

FESTO

Actual torque [Nm] as a function of operating pressure [bar], spring strength and swivel angle [°]															
Spring strength	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	1,140	630	960	1,354	758.6	1,174
4	591.4	282.9	351.4	720	360	480	805.7	411.4	565.7	1,020	540	780	1,234	668.6	994.3
DAPS-0960															
1	-			-			-			-			-		
2	1,028.6	557.1	828.6	1,200	660	1,000	-			-			-		
3	948.6	497.1	708.6	1,120	600	880	1,234.3	668.6	994.3	1,520	840	1,280	1,805.7	1,011.4	1,565.7
4	788.6	377.1	468.6	960	480	640	1,074.3	548.6	754.3	1,360	720	1,040	1,645.7	891.4	1,325.7
DAPS-1440															
1	-			-			-			-			-		
2	1,542	835	1,242	1,800	990	1,500	-			-			-		
3	1,422	745	1,062	1,680	900	1,320	1,851	1,002	1,491	2,280	1,260	1,920	2,708	1,517	2,348
4	1,182	565	702	1,440	720	960	1,611	822	1,131	2,040	1,080	1,560	2,468	1,337	1,988
DAPS-1920															
1	-			-			-			-			-		
2	2,057	1,114	1,657	2,400	1,320	2,000	-			-			-		
3	1,897	994	1,417	2,240	1,200	1,760	2,468	1,337	1,988	3,040	1,680	2,560	3,611	2,022	3,131
4	1,577	754	937	1,920	960	1,280	2,148	1,097	1,508	2,720	1,440	2,080	3,291	1,782	2,651
DAPS-2880															
1	-			-			-			-			-		
2	3,085	1,671	2,485	3,600	1,980	3,000	-			-			-		
3	2,845	1,491	2,125	3,360	1,800	2,640	3,702	2,006	2,982	4,560	2,520	3,840	5,417	3,034	4,697
4	2,365	1,131	1,405	2,880	1,440	1,920	3,222	1,645	2,262	4,080	2,160	3,120	4,937	2,674	3,977

Nominal torque for size at 5.6 bar and swivel angle 0°

Quarter turn actuators DAPS, single-acting

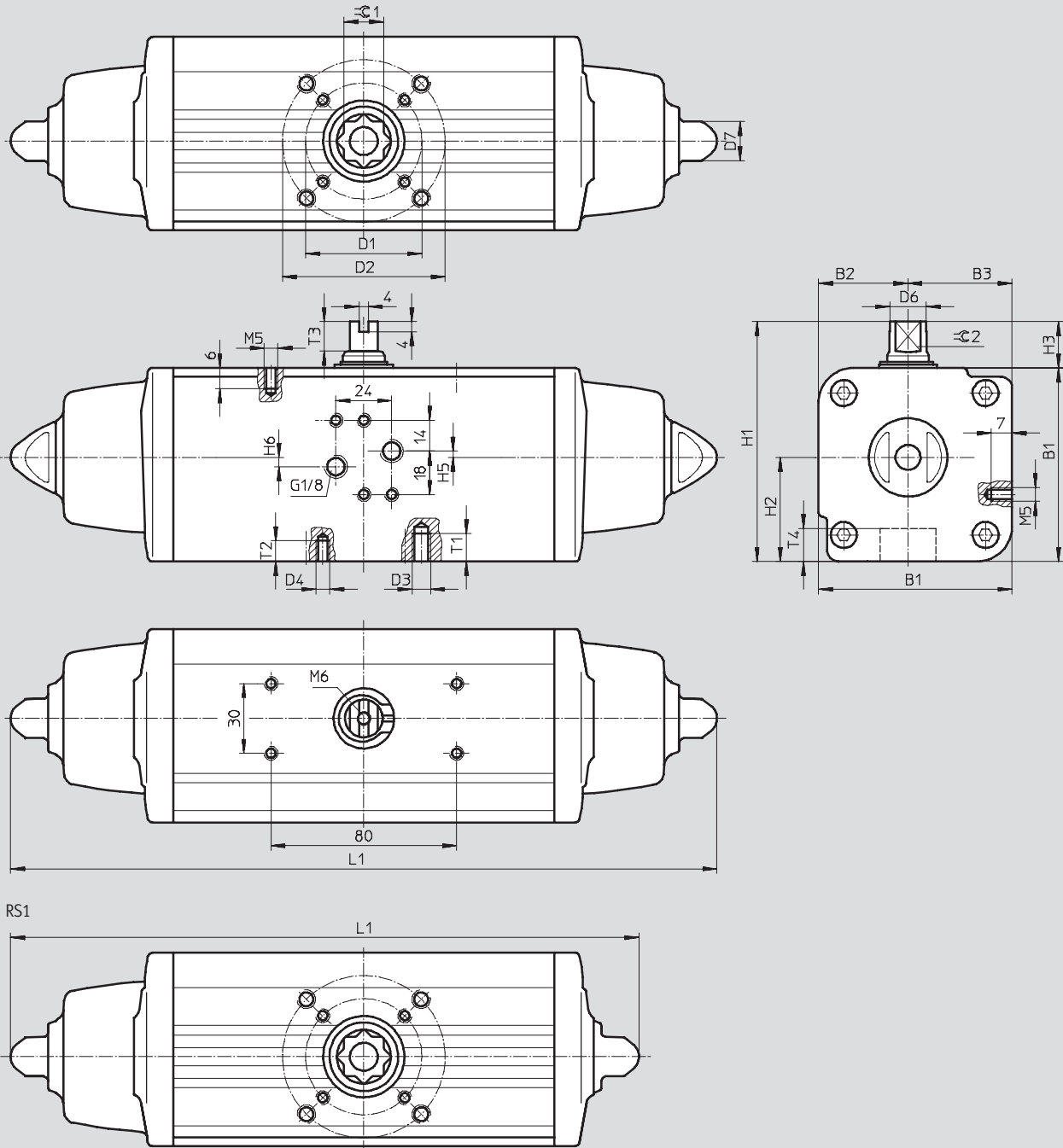
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

Size 0015 ... 0180



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, single-acting



Technical data

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

Size	H3	H5	H6	L1		T1	T2	T3	T4	=C 1	=C 2
				RS1	RS...						
DAPS-0015-...-F0305	20	0.8	3.2	203.8	233.3	9	8	10	13.2	11	9
DAPS-0015-...-F04						-					
DAPS-0030-...-F04	20	-	4	228.5	259	-	8	13	16.5	14	10
DAPS-0030-...-F0507						12					
DAPS-0053-...-F0507	20	-	4	270.7	303.5	12	9	13	19.3	17	12
DAPS-0090-...-F0710	30	-	4	341.8	393.7	15	12	16	24.8	22	15
DAPS-0120-...-F0710	30	-	4	361.6	409.6	15	12	17	24.8	22	15
DAPS-0180-...-F0710	30	-	4	406.6	474	15	12	19	24.3	22	19

Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, single-acting

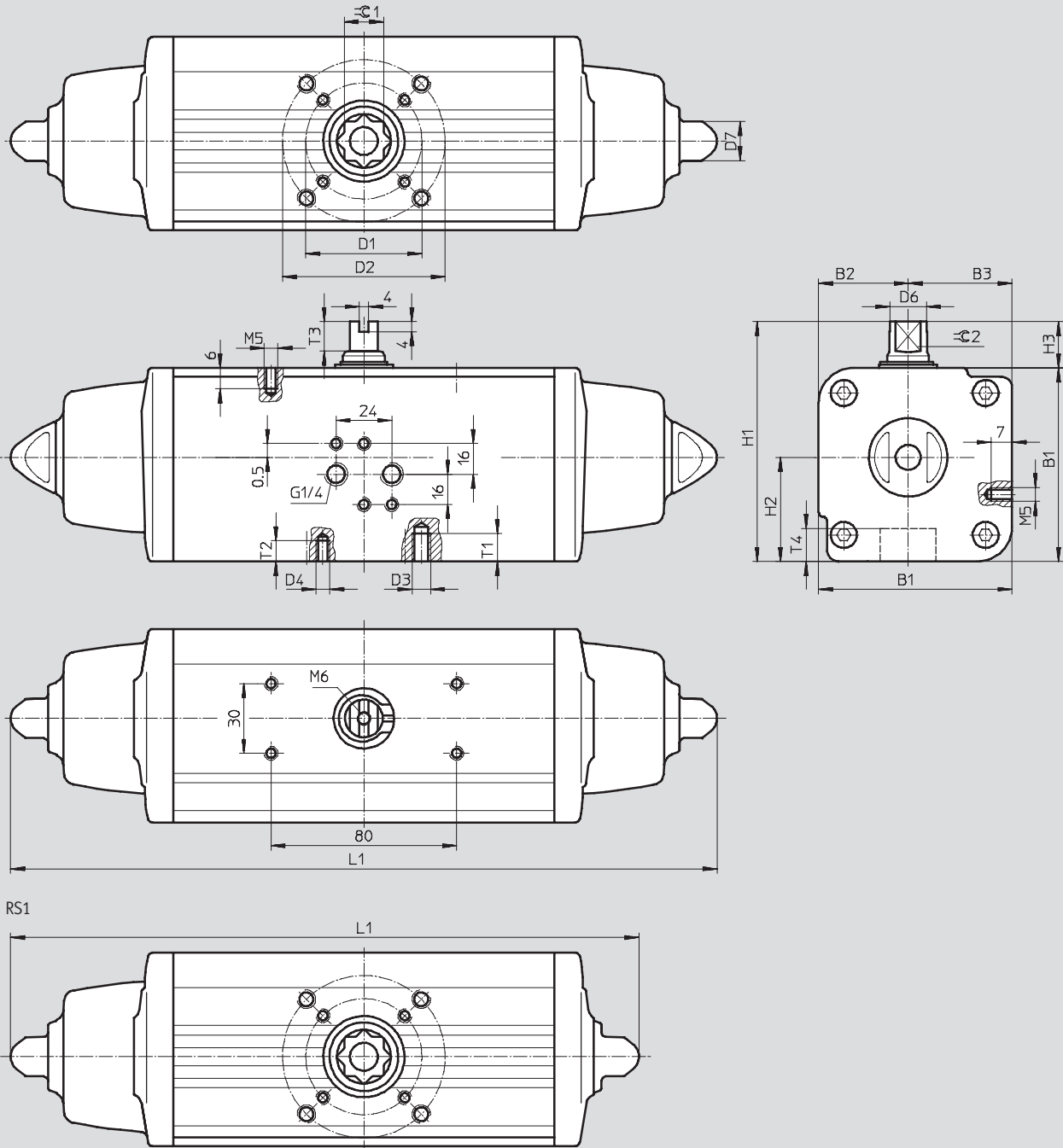
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

Size 0240 ... 0960



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, single-acting



Technical data

Size	B1	B2	B3	D1 ∅ ±0.1	D2 ∅ ±0.1	D3	D4	D6 ∅	D7 ∅	H1
DAPS-0240-...-F1012	134.9	62	72.9	102	125	M12	M10	29	27	164.9
DAPS-0360-...-F1012	148	-	-	102	125	M12	M10	31.8	27	178
DAPS-0480-...-F12	168	74.5	93.5	125	-	-	M12	36.5	27	198
DAPS-0480-...-F14				140			M16			
DAPS-0720-...-F12	168	-	-	125	-	-	M12	-	36	216
DAPS-0720-...-F14				140			M16			
DAPS-0960-...-F14	207.7	93	114.7	140	-	-	M16	46	36	237.7
DAPS-0960-...-F1216				125			165			

Size	H2	H3	H5	L1		T1	T2	T3	T4	≈C1	≈C2
				RS1	RS...						
DAPS-0240-...-F1012	72.9	30	0.5	454.1	520.5	15	18	19	29.5	27	19
DAPS-0360-...-F1012	78.5	30	-1	523	613	18	15	19.5	29.5	27	22
DAPS-0480-...-F12	93.5	30	0.5	563.8	648.2	-	18	19.5	38.5	36	24
DAPS-0480-...-F14							24				
DAPS-0720-...-F12	101.5	30	-1	798	683	-	18	19.5	38.5	36	27
DAPS-0720-...-F14							24				
DAPS-0960-...-F14	114.7	30	0.5	714.4	828	-	24	18.5	48.5	46	32
DAPS-0960-...-F1216						30	18				

Quarter turn actuators DAPS, single-acting

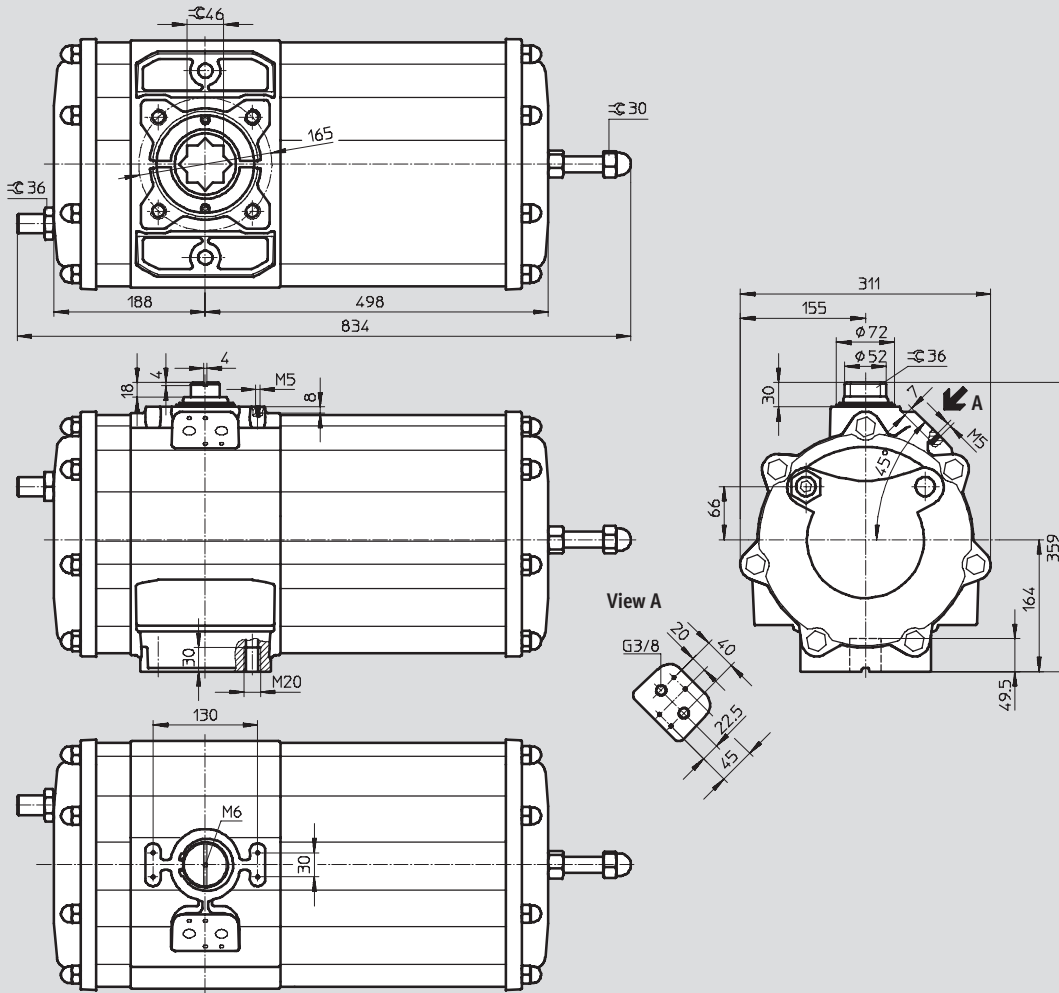
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

Size 1440



Actuators
Quarter turn actuators
1.2

Quarter turn actuators DAPS, single-acting

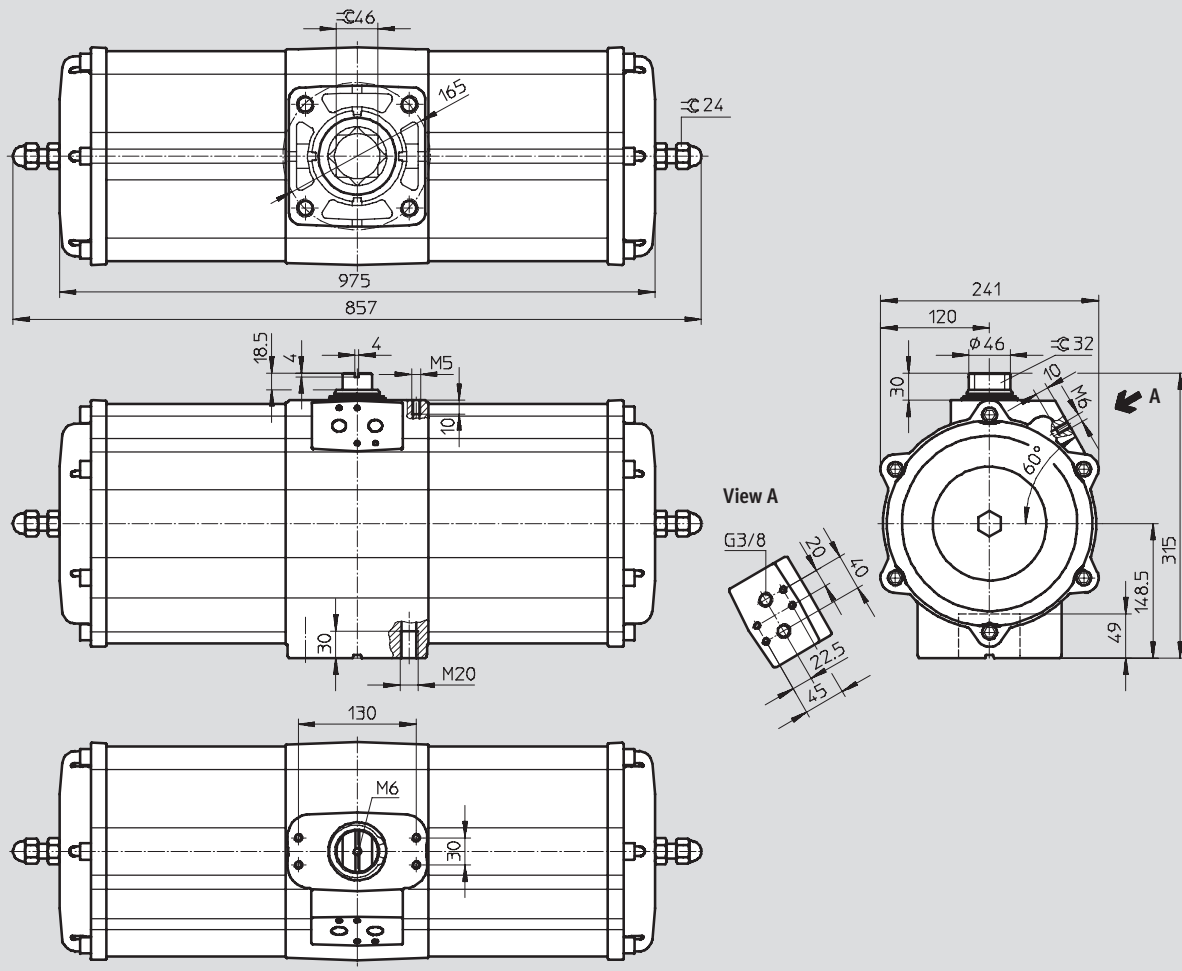
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

Size 1920



Quarter turn actuators DAPS, single-acting

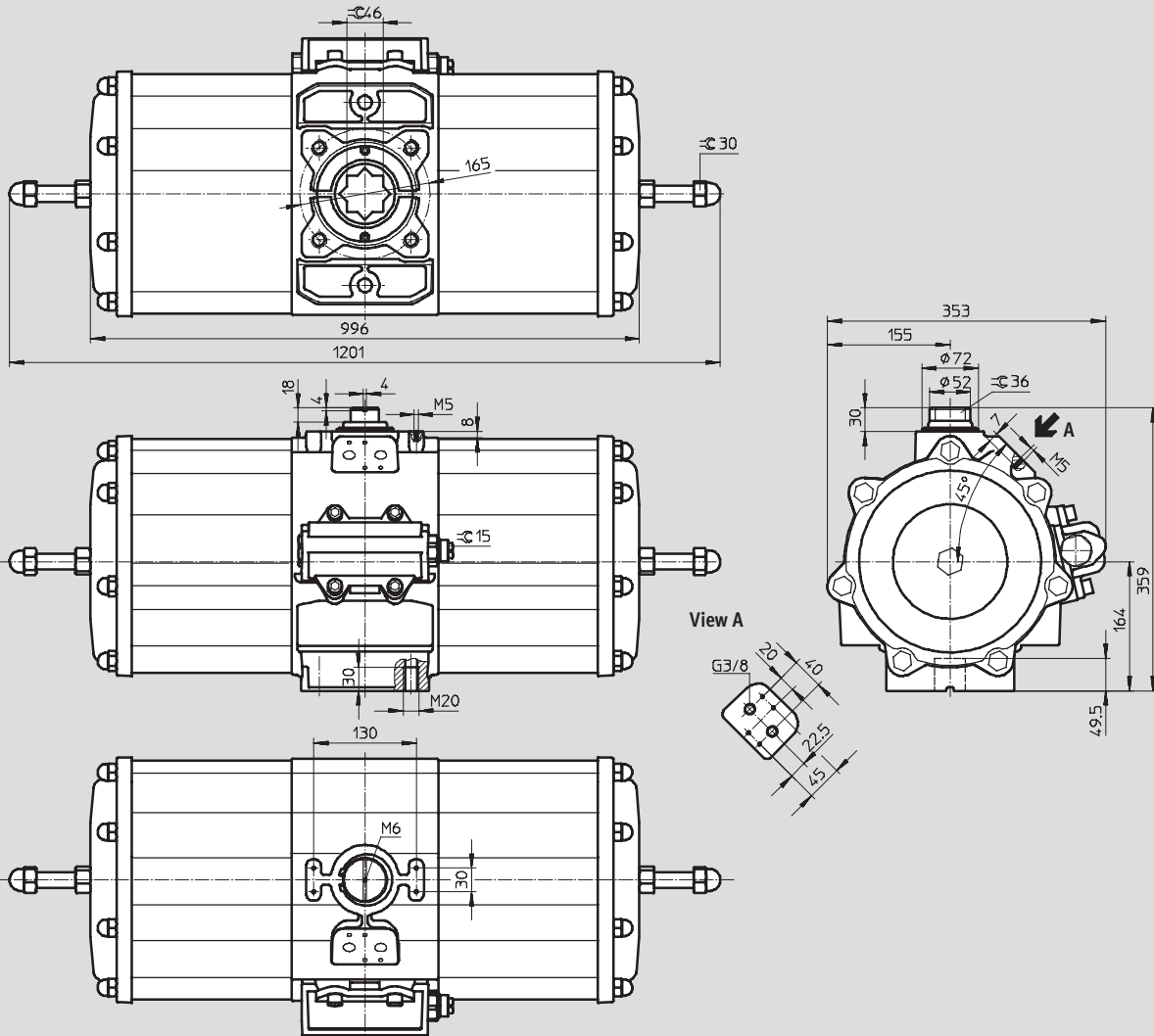
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

Size 2880



Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, single-acting

Technical data

FESTO

Ordering data		Ordering data	
Part No.	Type	Part No.	Type
Size 0015		Size 0480	
533 427	DAPS-0015-090-RS1-F0305	533 455	DAPS-0480-090-RS1-F12
533 480	DAPS-0015-090-RS1-F04	533 488	DAPS-0480-090-RS1-F14
533 428	DAPS-0015-090-RS2-F0305	533 456	DAPS-0480-090-RS2-F12
533 481	DAPS-0015-090-RS2-F04	533 489	DAPS-0480-090-RS2-F14
533 429	DAPS-0015-090-RS3-F0305	533 457	DAPS-0480-090-RS3-F12
533 482	DAPS-0015-090-RS3-F04	533 490	DAPS-0480-090-RS3-F14
533 430	DAPS-0015-090-RS4-F0305	533 458	DAPS-0480-090-RS4-F12
533 483	DAPS-0015-090-RS4-F04	533 491	DAPS-0480-090-RS4-F14
Size 0030		Size 0720	
533 431	DAPS-0030-090-RS1-F04	549 677	DAPS-0720-090-RS1-F12
533 484	DAPS-0030-090-RS1-F0507	549 681	DAPS-0720-090-RS1-F14
533 432	DAPS-0030-090-RS2-F04	549 678	DAPS-0720-090-RS2-F12
533 485	DAPS-0030-090-RS2-F0507	549 682	DAPS-0720-090-RS2-F14
533 433	DAPS-0030-090-RS3-F04	549 679	DAPS-0720-090-RS3-F12
533 486	DAPS-0030-090-RS3-F0507	549 683	DAPS-0720-090-RS3-F14
533 434	DAPS-0030-090-RS4-F04	549 680	DAPS-0720-090-RS4-F12
533 487	DAPS-0030-090-RS4-F0507	549 684	DAPS-0720-090-RS4-F14
Size 0053		Size 0960	
533 435	DAPS-0053-090-RS1-F0507	533 459	DAPS-0960-090-RS1-F14
533 436	DAPS-0053-090-RS2-F0507	533 492	DAPS-0960-090-RS1-F1216
533 437	DAPS-0053-090-RS3-F0507	533 460	DAPS-0960-090-RS2-F14
533 438	DAPS-0053-090-RS4-F0507	533 493	DAPS-0960-090-RS2-F1216
Size 0090		Size 1440	
533 439	DAPS-0090-090-RS1-F0710	549 685	DAPS-1440-090-RS1-F16
533 440	DAPS-0090-090-RS2-F0710	549 686	DAPS-1440-090-RS2-F16
533 441	DAPS-0090-090-RS3-F0710	549 687	DAPS-1440-090-RS3-F16
533 442	DAPS-0090-090-RS4-F0710	549 688	DAPS-1440-090-RS4-F16
Size 0120		Size 1920	
533 443	DAPS-0120-090-RS1-F0710	549 689	DAPS-1920-090-RS1-F16
533 444	DAPS-0120-090-RS2-F0710	549 690	DAPS-1920-090-RS2-F16
533 445	DAPS-0120-090-RS3-F0710	549 691	DAPS-1920-090-RS3-F16
533 446	DAPS-0120-090-RS4-F0710	549 692	DAPS-1920-090-RS4-F16
Size 0180		Size 2880	
533 447	DAPS-0180-090-RS1-F0710	549 693	DAPS-2880-090-RS1-F16
533 448	DAPS-0180-090-RS2-F0710	549 694	DAPS-2880-090-RS2-F16
533 449	DAPS-0180-090-RS3-F0710	549 695	DAPS-2880-090-RS3-F16
533 450	DAPS-0180-090-RS4-F0710	549 696	DAPS-2880-090-RS4-F16
Size 0240			
533 451	DAPS-0240-090-RS1-F1012		
533 452	DAPS-0240-090-RS2-F1012		
533 453	DAPS-0240-090-RS3-F1012		
533 454	DAPS-0240-090-RS4-F1012		
Size 0360			
549 673	DAPS-0360-090-RS1-F1012		
549 674	DAPS-0360-090-RS2-F1012		
549 675	DAPS-0360-090-RS3-F1012		
549 676	DAPS-0360-090-RS4-F1012		

Actuators
Quarter turn actuators

1.2

Quarter turn actuators DAPS, single-acting

Technical data



Ordering data – Wearing parts kits		Ordering data – Wearing parts kits	
Part No.	Type	Part No.	Type
Size 0015		Size 0180	
397 471	DAPS-0030/S0015	397 476	DAPS-0360/S0180
Size 0030		Size 0240	
397 472	DAPS-0060/S0030	397 477	DAPS-0480/S0240
Size 0053		Size 0480	
397 473	DAPS-0106/S0053	397 478	DAPS-0960/S0480
Size 0090		Size 0960	
397 474	DAPS-0180/S0090	397 479	DAPS-1920/S0960
Size 0120			
397 475	DAPS-0240/S0120		

Actuators
Quarter turn actuators

1.2