



COMPACT ACTUATORS

SY01K SERIES

TECHNICAL FEATURES

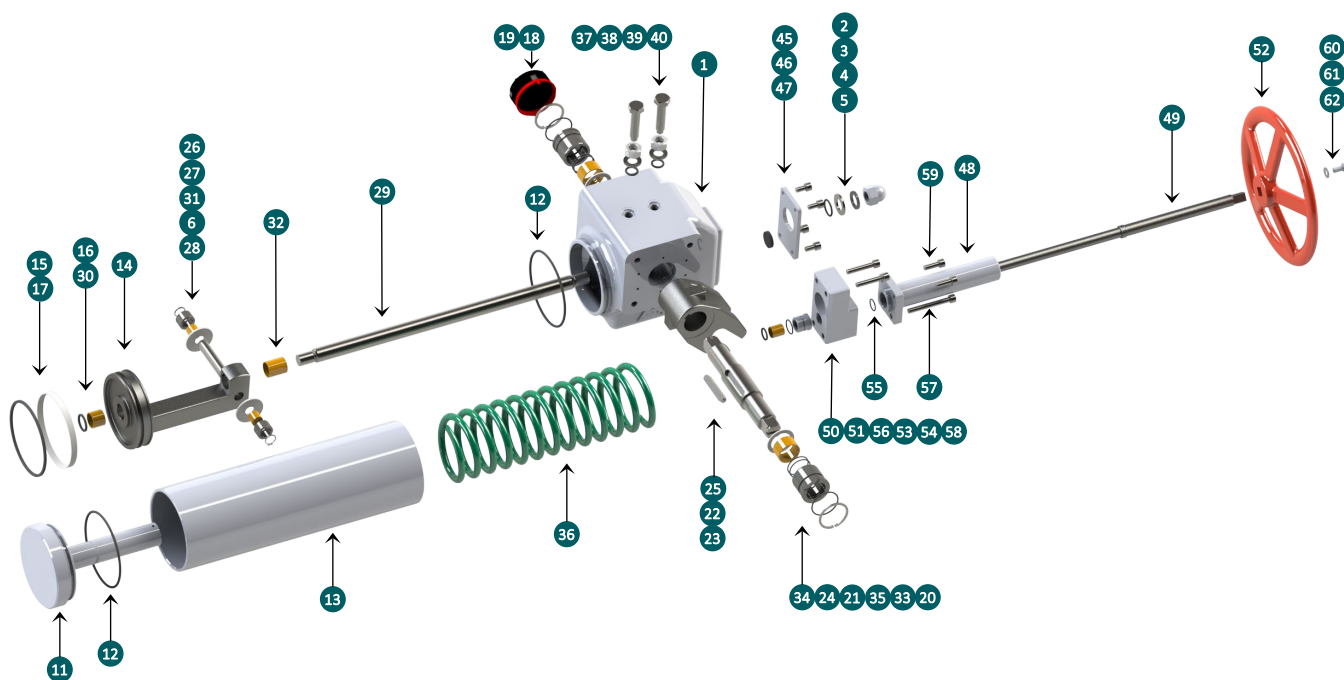


Manufacturing program:



Quality Management:





PARTS & MATERIALS

Item	Description	Material	Item	Description	Material
1	Body	ASTM A352 Grade LCC	32	Lubricated Bearing	S/F
2	O - Ring	Nitrile	33	O - Ring	NBR
3	Washer DIN - 125	AISI - 304	34	Soft Pinion Washer	PP 6.6
4	Washer Nord - Lock	Stainless steel	35	Shaft Bearing	AISI - 304
5	Cap Nut DIN - 1587	A2-70	36	Spring	DIN 17223 - C-13
6	Soft Pinion Washer	PP 6.6	37	Set Screw	A2 - 70
11	End Cap	ASTM A350 LF6 Class 1	38	Nut DIN - 934	A2 - 70
12	O-Ring	NBR	39	Washer DIN - 125	AISI - 304
13	Cylinder	ASTM A350 LF6 Class 1 with internal PTFE coating	40	O - Ring	NBR
14	Piston	ASTM A352 Grade LCC	45	Button	Rubber
15	Quad - Ring Seal	NBR	46	Plate	Q-345B
16	Quad - Ring Seal	NBR	47	Bolt Allen	A2-70
17	SLYD Ring	PTFE - Br	48	Nut TR	F-1250 / F-1140
18	Position Indicator	Polypropylene	49	Shaft TR-FL	X30Cr13 (AISI 431)
19	Adapter	Stainless steel	50	Bushing FL	ASTM A352 Grade LCC
20	Retaining Ring DIN - 472	F141 + Nickel Plated	51	Bushing	F-1120
21	O - Ring	NBR	52	Handwheel	EN-GJS-400
22	Shaft	42CrMo4, quenched and tempered, electroless nickel plated *	53	Bearing DU	C.S.
23	Key DIN-6885-A	F-1140	54	Quad - Ring Seal	NBR
24	Lubricated Bearing	S/F	55	O - Ring	NBR
25	Yoke	ASTM A352 Grade LCC	56	O - Ring	NBR
26	Retaining Ring DIN - 471	F141 + Nickel Plated	57	Bolt Allen	8.8
27	Bearing	AISI - 304	58	Bolt Allen	8.8
28	Piston Shift	ASTM A352 Grade LCC	59	Bolt Allen	8.8
29	Tension Bar	ASTM A656 Grade 50 Type 7, chromium plated	60	Hexagon Bolt	8.8
30	Lubricated Bearing	S/F	61	Spring Washer	C.S.
31	Lubricated Bearing	S/F	62	Washer	C.S.

* 17-4PH only for model SY01K07

GENERAL CHARACTERISTICS

DESIGN STANDARDS	Serie DA Serie SR	Actuator Actuator
Mounting of solenoid valves	NAMUR Std.	
Mounting of devices	NAMUR VDI	NAMUR VDE 3845 Std.
Coupling according	ISO 5211	DIN 3337
Marking	Ex II 2 G D c	According to EN 15714-3
TESTS AND CERTIFICATES		
Quality assurance	ISO 9001	SIL3 capable (1oo2 Configuration)

Pressure connection	Top device connection	Max. Supply pressure	Stroke Rotation	Screw stroke Adjustment	Operating Temperature (°C)		
					STD (standard)	HT (high temp.)	EL (ex. low temp)
NAMUR G 1/4"	NAMUR VDI/VDE 3845 EN15714-4 (AA2)	8 bar	90° ±5°	For 1° Need 1/4 Turn	NBR "O" Ring -30° to +100°	FKM "O" Ring -15° to +150°	Silicone "O" Ring -60° to 80°

DOUBLE ACTING ACTUATOR "DA" TORQUE OUTPUT IN Nm

Model	3 bar			4 bar			5 bar			6 bar			7 bar			8 bar		
	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End
SY01K07DA (F07)	85	54	86	113	73	116	141	91	145	169	109	174	198	127	203	226	145	231
SY01K10DA (F07) (F07/10)*	168	106	167	224	141	222	281	177	277	337	212	333	392	247	389	449	283	444
SY01K12DA (F12)	341	213	338	455	284	451	568	355	563	682	426	677	796	497	789	909	568	902
SY01K14DA (F14)	640	407	659	853	542	878	1067	678	1098	1280	814	1317	1493	949	1536	1706	1085	1756

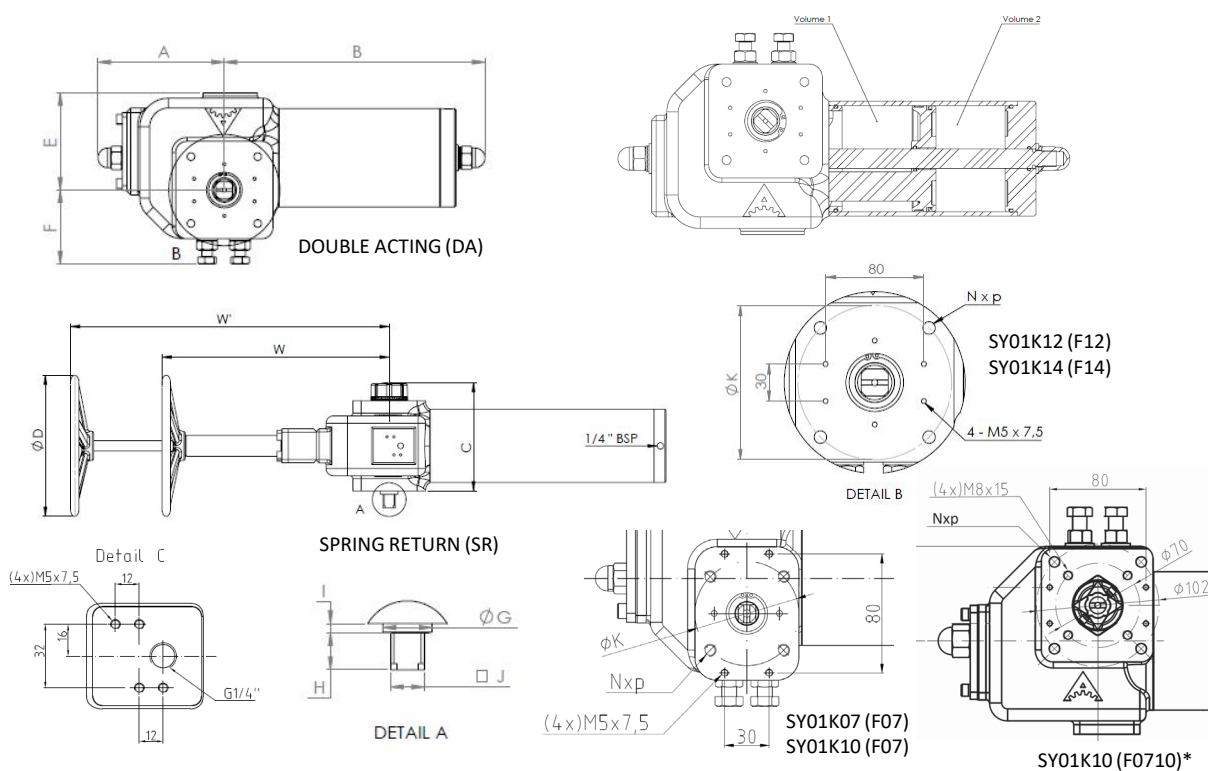
SPRING RETURN ACTUATOR "SR4" TORQUE OUTPUT IN Nm

Model	4 bar			5 bar			6 bar			7 bar			8 bar			SPRING RETURN (4 bar)		
	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End
SY01K07SR (F07)	78	34	43	107	51	73	138	68	104	167	86	134	198	104	164	80	34	42
SY01K10SR (F07) (F07/10)*	166	69	75	226	103	134	285	136	193	344	170	251	404	203	310	159	65	70
SY01K12SR (F12)	343	136	137	463	203	256	583	271	375	703	338	494	823	406	613	339	134	137
SY01K14SR (F14)	623	253	279	848	382	511	1074	511	743	1299	639	975	1524	769	1207	647	262	277

SPRING RETURN ACTUATOR "SR6" TORQUE OUTPUT IN Nm

Model	5 bar			6 bar			7 bar			8 bar			SPRING RETURN (6 bar)		
	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End
SY01K07SR (F07)	75	35	48	105	52	78	135	69	108	164	86	139	105	51	74
SY01K10SR (F07) (F07/10)*	168	69	75	227	103	142	287	137	192	346	170	251	218	98	128
SY01K12SR (F12)	346	139	143	466	206	263	586	274	382	706	341	501	451	199	254
SY01K14SR (F14)	662	257	258	887	387	490	1112	516	722	1338	644	954	900	386	463

* SY01K10 (F07/10) – Available upon request



DIMENSIONS & WEIGHT

Model	A	B	C	E	F	ØG	H	I	J	ØK	N x p	ØD	W / W'	Weight (Kg)
SY01K07DA (F07)		201										-	-	7
SY01K07SR (F07)	102	302,5	126	85,6	62,1	Ø16	27	3	12	Ø70	M8x15	-	-	10
SY01K07SR-HW (F07)		302,5										Ø250	297,5 / 378,7	13
SY01K10DA (F07) (F07/10*)		247,8								Ø70	M8x15	-	-	15
SY01K10SR (F07) (F07/10*)	132,8	320	150	107	82	Ø18	25,7	3,8	14	Ø70 / 102*	M8x15 / M10x15*	-	-	18
SY01K10SR-HW (F07) (F07/10*)		320										Ø250	322,5 / 424	22
SY01K12DA (F12)		346										-	-	31
SY01K12SR (F12)	164	491	190	128	97,5	Ø32	24	6	22	Ø125	M12x18	-	-	38
SY01K12SR-HW (F12)		491										Ø250	402,5 / 544,4	43
SY01K14DA (F14)		395,1										-	-	50
SY01K14SR (F14)	190,4	561	206	161,5	135,5	Ø37	24	6	27	Ø140	M16x25	-	-	66
SY01K14SR-HW (F14)		561										Ø250	431,5 / 606,5	72

AIR VOLUME

Model	Volume 1 (L)	Volume 2 (L)	Model	Volume 1 (L)
SY01K07DA (F07)	0.73	0.36	SY01K07SR (F07)	0.36
SY01K10DA (F07) (F07/10*)	1.55	0.81	SY01K10SR (F07) (F07/10*)	1.55
SY01K12DA (F12)	3.30	1.58	SY01K12SR (F12)	3.30
SY01K14DA (F14)	5.30	2.90	SY01K14SR (F14)	5.30

* SY01K10 (F07/10) – Available upon request



For further information visit our website

www.actreg.com



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