

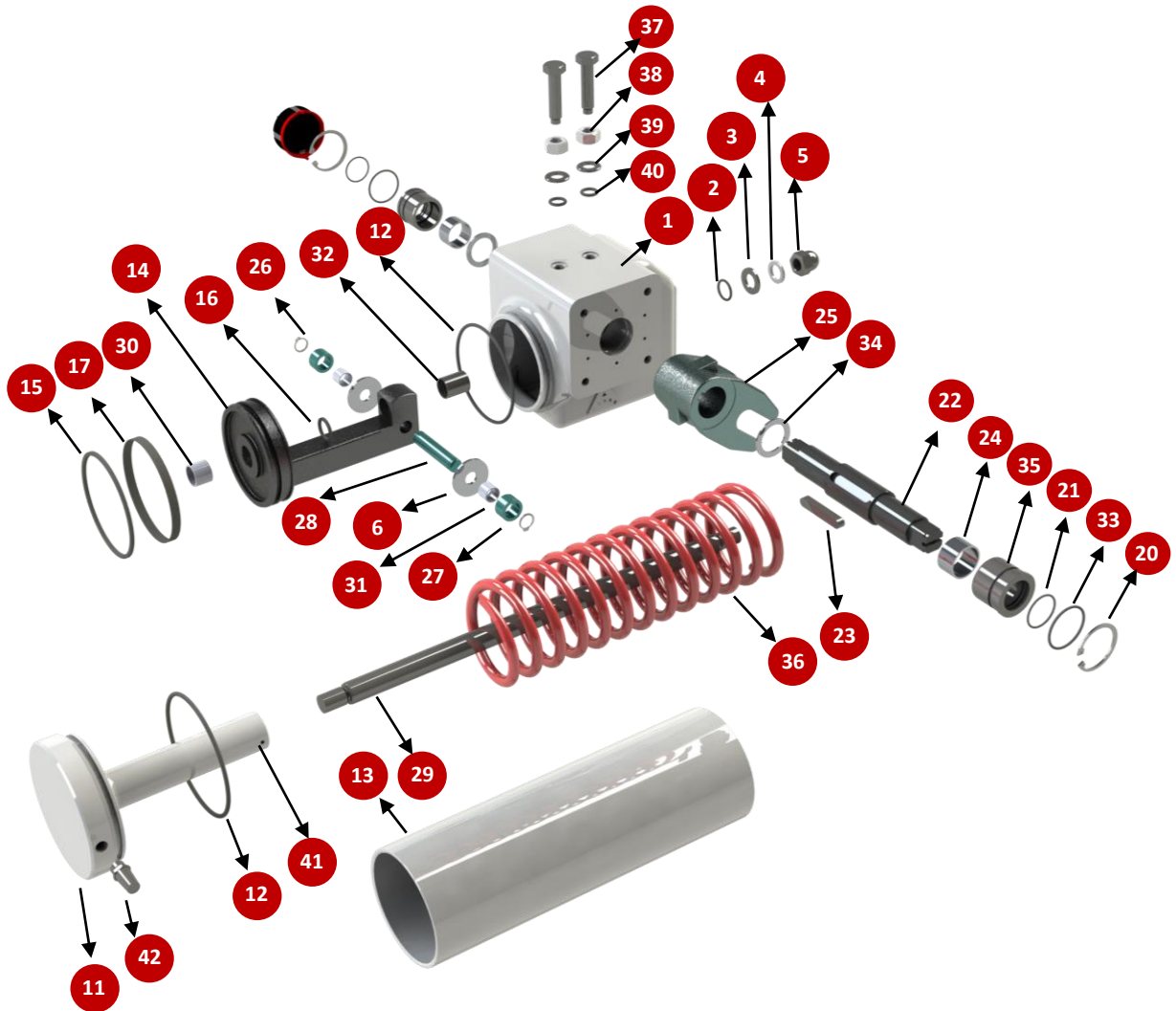


## COMPACT ACTUATORS

SY01K SERIES - STEEL

TECHNICAL FEATURES





### PARTS & MATERIALS

Item	Description	Material	Item	Description	Material
1	Body	LCC/WCB	25	YOKE	LCC / A216 WCB
2	O-Ring	Nitrile	26	Retaining Ring DIN – 471	F141 + Nickel Plated
3	Washer DIN - 125	AISI – 304	27	Bearing	AISI – 304
4	Washer Nord - Lock	INOX	28	Piston Shift	AISI - 431
5	Cap Nut DIN – 1587	A2-70	29	Tension Bar	C-45 (F-1140) – Cr
6	Soft Pinion Washer	PP 6.6	30	Lubricated Bearing	S/F
11	End Cap	A216 WCB / LF2	31	Lubricated Bearing	S/F
12	O-Ring	Nitrile	32	Lubricated Bearing	S/F
13	Cylinder	E-335*	33	O-Ring	Nitrile
14	Piston	A216 WCB / LCC	34	Soft Pinion Washer	PP 6.6
15	Quad – Ring Seal	NBR	35	Shaft Bearing	AISI – 304
16	Quad – Ring Seal	NBR	36	Spring	DIN 17223 – C-13
17	SLYD Ring	PTFE – Br	37	Set Screw	A2 – 70
20	Retaining Ring DIN - 472	F141 + Nicked Plated	38	Nut DIN – 934	A2 – 70
21	O-Ring	Nitrile	39	Washer DIN – 125	AISI – 304
22	Shaft	AISI - 431	40	O-Ring	Nitrile
23	Key DIN-6885-A	F-1140	41	Spring PIN DIN -14812	A2
24	Lubricated Bearing	S/F	42	Porous Bronze Silencer G ¼ BSP	Br

\*Hard chrome or PTFE lined

### DOUBLE ACTING ACTUATOR "ADA" TORQUE OUTPUT IN Nm

	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
<b>SY01K07DA</b>	85	54	86	113	73	116	141	91	145	169	109	174	198	127	203	226	145	231
<b>SY01K10DA</b>	168	106	167	224	141	222	281	177	277	337	212	333	392	247	389	449	283	444
<b>SY01K12DA</b>	341	213	338	455	284	451	568	355	563	682	426	677	796	497	789	909	568	902
<b>SY01K14DA</b>	640	407	659	853	542	878	1067	678	1098	1280	814	1317	1493	949	1536	1706	1085	1756

For 4.5 & 5 Bar refer to other chart

### SPRING RETURN ACTUATOR "SR4" TORQUE OUTPUT IN Nm

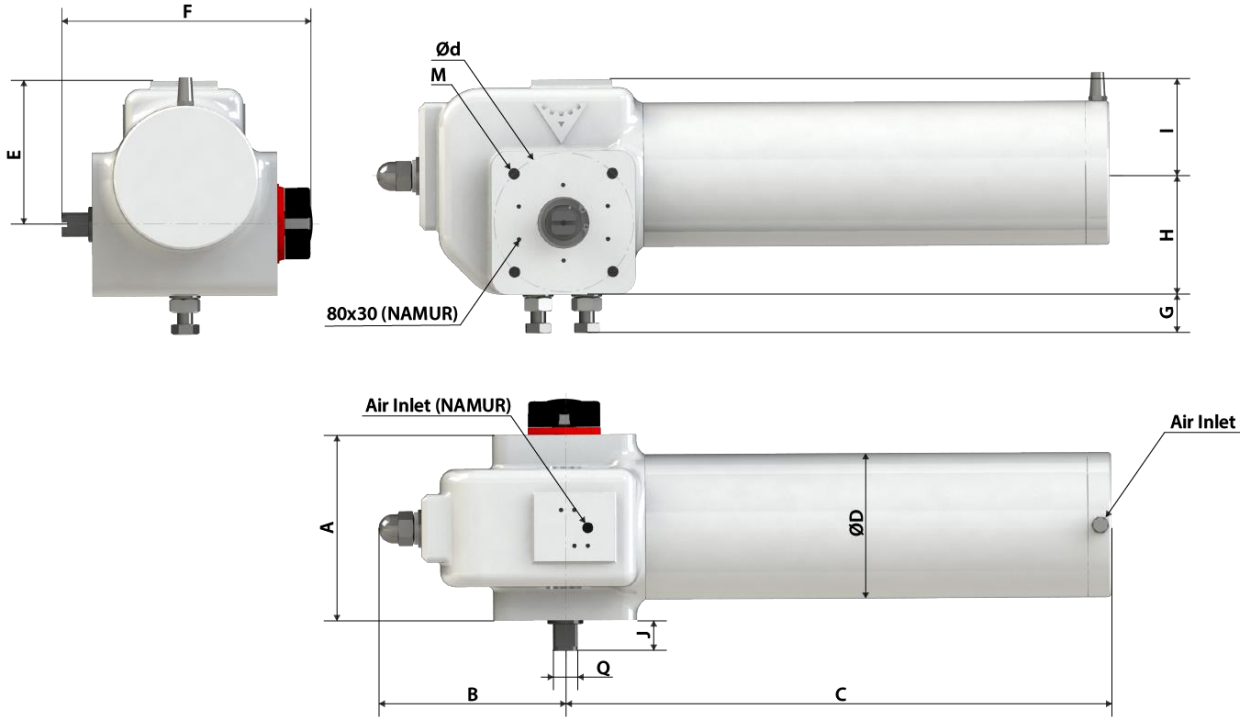
	4 bar			5 bar			6 bar			7 bar			8 bar			SPRING RETURN (4BAR)		
	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End
<b>SY01K07SR4</b>	78	34	43	107	51	73	138	68	104	167	86	134	198	104	164	80	34	42
<b>SY01K10SR4</b>	166	69	75	226	103	134	285	136	193	344	170	251	404	203	610	159	65	70
<b>SY01K12SR4</b>	343	136	137	463	203	256	583	271	375	703	338	49	823	406	613	339	134	137
<b>SY01K14SR4</b>	623	253	279	848	382	511	1074	511	743	1299	639	975	1524	769	1207	647	262	277

For 4.5 & 5 Bar refer to other chart

### SPRING RETURN ACTUATOR "SR6" TORQUE OUTPUT IN Nm

	5 bar			6 bar			7 bar			8 bar			SPRING RETURN (6BAR)		
	Start	Running	End	Start	Running	End	Start	Running	End	Start	Running	End	Start CL	Running	End CL
<b>SY01K07SR6</b>	75	35	48	105	52	78	135	69	108	164	86	139	105	51	74
<b>SY01K10SR6</b>	168	69	75	227	103	142	287	137	192	346	170	251	218	98	128
<b>SY01K12SR6</b>	346	139	143	466	206	263	586	274	382	706	341	501	451	199	254
<b>SY01K14SR6</b>	662	257	258	887	387	490	1112	516	722	1338	644	954	900	386	463

For 4.5 & 5 Bar refer to other chart



### DIMENSIONS

	A	B'	C	ØD	E	F	G	H	I	Ød	M	Q	J	AIR INLET
<b>SY01K07 DA</b> <b>SY01K07 SR</b>	96	101,5	174 302,5	90	85,6	146	24	63	62	50 / 70	M6 / M8	12	22	G1/4"
<b>SY01K10 DA</b> <b>SY01K10 SR</b>	120	135	250 305	115	179	107	33	78,5	77,5	102	M10	14	29,5	G1/4"
<b>SY01K12 DA</b> <b>SY01K12 SR</b>	160	164	346 492	130	220	128,25	33	107	86	125	M12	22	30	G1/4"
<b>SY01K14 DA</b> <b>SY01K14 SR</b>	176	191	395 561	165	235,5	161	45	141	109	125	M12	27	29,75	G1/4"

### GENERAL CHARACTERISTICS

DESIGN STANDARDS	Serie ADA	Actuator
	Serie ASR	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 (In 1oo2 Configuration)

Max. Pressure	Max. Pressure	Rotation	Screw stroke Adjustment	Operating Temperature (°C)			
				STD (standard)	HT (high temp.)	LT (low temp.)	EL (ex. low temp)
<b>SY01K07</b> <b>SY01K10</b> <b>SY01K12</b> <b>SY01K14</b>	8 bar	90° ±5°	For 1° Need ¼ Turn	NBR "O" Ring -30° to +100°	FPM "O" Ring -15° to +150°	Silicone "O" Ring -40° to +80°	Silicone "O" Ring -60° to 80°



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**SK (SY01K) Series Torques**

Rev.4	TORQUE ACTUATORS in Nm																							
TYPE	DOUBLE ACTING																							
	3 Bar			4 Bar			4.5 Bar			5 Bar			5.5 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	Start	Running	End	Start	Running	End
SY01K07DA	85	54	86	113	73	116	127	82	131	141	91	145	155	100	159	169	109	174	198	127	203	226	145	231
SY01K10DA	168	106	167	224	141	222	252	159	250	281	177	277	309	195	305	337	212	333	392	247	389	449	283	444
SY01K12DA	341	213	338	455	284	451	511	320	507	568	355	563	625	391	620	682	426	677	796	497	789	909	568	902
* SY01K14DA	640	407	659	853	542	878	960	610	988	1067	678	1098	1173	746	1207	1280	814	1317	1493	949	1536	1706	1085	1756

TYPE	SINGLE ACTING (4 Bar)																										
	4 Bar			4.5 Bar			5 Bar			5.5 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	Start	Running	End	Start	Running	End	End Closing	Running	Start Closing
SY01K07SR4	78	34	43	93	43	58	107	51	73	123	60	88	138	68	104	167	86	134	198	104	164	198	104	164	42	34	80
SY01K10SR4	166	69	75	196	86	105	226	103	134	256	119	163	285	136	193	344	170	251	404	203	310	404	203	310	70	65	159
* SY01K12SR4	343	136	137	403	170	196	463	203	256	523	237	315	583	271	375	703	338	494	823	406	613	823	406	613	137	134	339
SY01K14SR4	623	253	279	736	317	395	848	382	511	961	447	627	1074	511	743	1299	639	975	1524	769	1207	1524	769	1207	277	262	647

TYPE	SINGLE ACTING (6 Bar)																										
	4.5 Bar			5 Bar			5.5 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	Start	Running	End	Start	Running	End	Start	Running	End	End Closing	Running	Start Closing
SY01K07SR6	60	26	32	75	35	48	90	44	63	105	52	78	135	69	108	164	86	139	164	86	139	164	86	139	74	51	105
SY01K10SR6	138	53	42	168	69	75	198	86	108	227	103	142	287	137	192	346	170	251	346	170	251	346	170	251	128	98	218
SY01K12SR6	286	105	84	346	139	143	406	172	203	466	206	263	586	274	382	706	341	501	706	341	501	706	341	501	254	199	451
* SY01K14SR6	549	193	143	662	257	258	775	322	374	887	387	490	1112	516	722	1338	644	954	1338	644	954	1338	644	954	463	386	900

\* Was SY01K15 (F12), replaced by SY01K14. Identical except F14

NOTES:  
 - SR5 not made  
 Low temperature execution (-40°C) x 1,1  
 Special RAL Color x 1,1  
 Actuators C5, ISO12944 x 1,5