

Tipo.....	Actuadores rotantes de 90° simple o doble efecto
Normas.....	ISO 5211 - DIN3337: para conexión con la válvula de proceso a automatizar NAMUR VDI/VDE 3845 para montaje de accesorios y válvula direccional de comando del actuador
Diámetros.....	32...400mm
Carrera.....	Rotación 90° con carrera ajustable ±4° en 0° y 90°. Actuadores especiales a pedido
Temp. ambiente.....	-20...80 °C (-4...176°F). Consulte por aplicaciones especiales
Fluido.....	Aire comprimido filtrado con o sin lubricación
Presión de trabajo.....	2,5...8 bar (36 a 116 psi)
Materiales.....	Cuerpo de aluminio extruido con protección interna y externa contra la corrosión



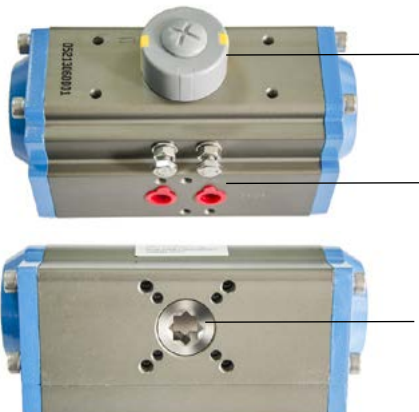
Ø	cant. standand resortes	MiCRO		Kit reparación NBR	Kit reparación FKM
		Simple efecto	Doble efecto		
32	2	0.900.009.220	0.900.006.001	0.900.009.300	0.900.009.350
40	2	0.900.009.221	0.900.009.201	0.900.009.301	0.900.009.351
52 *	8	0.900.009.222	0.900.009.202	0.900.009.302	0.900.009.352
63	8	0.900.009.223	0.900.009.203	0.900.009.303	0.900.009.353
75	8	0.900.009.224	0.900.009.204	0.900.009.304	0.900.009.354
83	8	0.900.009.225	0.900.009.205	0.900.009.305	0.900.009.355
92	8	0.900.009.226	0.900.009.206	0.900.009.306	0.900.009.356
105	8	0.900.009.227	0.900.009.207	0.900.009.307	0.900.009.357
125	8	0.900.009.228	0.900.009.208	0.900.009.308	0.900.009.358
140	8	0.900.009.229	0.900.009.209	0.900.009.309	0.900.009.359
160	8	0.900.009.230	0.900.009.210	0.900.009.310	0.900.009.360
190	8	0.900.009.231	0.900.009.211	0.900.009.311	0.900.009.361
210	8	0.900.009.232	0.900.009.212	0.900.009.312	0.900.009.362
240	8	0.900.009.233	0.900.009.213	0.900.009.313	0.900.009.363
270	8	0.900.009.234	0.900.009.214	0.900.009.314	0.900.009.364
300	8	0.900.009.235	0.900.009.215	0.900.009.315	0.900.009.365
350	8	0.900.009.236	0.900.009.216	0.900.009.216	0.900.009.366
400	8	0.900.009.237	0.900.009.217	0.900.009.217	0.900.009.367

Los códigos de actuadores indicados corresponden a modelos con sellos de NBR y resortes cantidad estandar (S.E.).

Para solicitar modelos con mayor o menor cantidad de resortes, agregar /0xx luego del código. Ej: un actuador 0.900.009.222, debe ser solicitado 0.900.009.222/010 (en el caso de requerir 10 resortes)

Para solicitar un actuador con sellos de FKM, agregar /4xx luego del código. Ej: un actuador Ø63 con guarniciones de FKM y 10 resortes, será solicitado como: 0.900.009.223/ 410

\* Para Ø52 interfaz F04 solicitar como: 0.900.009.238 (SE), 0.900.009.218 (DE)



Indicación visual de posición para la válvula. Conexión VDI/VDE 3845 NAMUR. Apto para montaje directo de todos los tipos de accesorios normalizados.

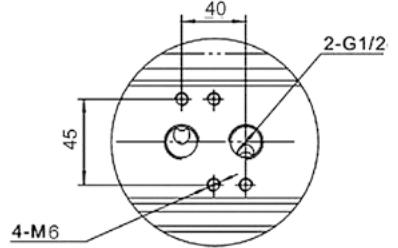
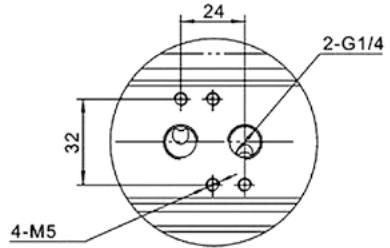
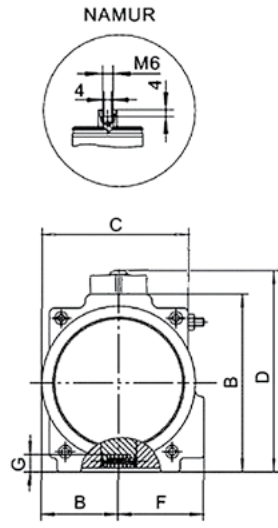
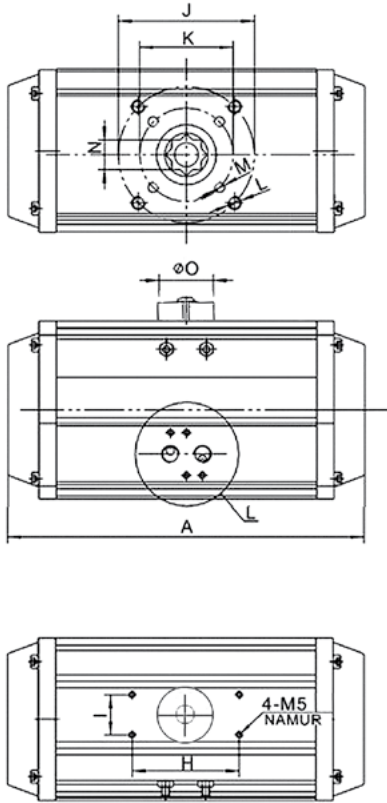
Conexión lateral VDI/VDE 3845 NAMUR para montaje directo de la Válvula direccional.

Montaje ISO 5211 para conexión con la válvula a automatizar.



### Válvulas Namur

Las válvulas versión NAMUR poseen una interfaz para instalación directa en los actuadores rotantes para comando de válvulas de esfera y mariposa, conforme norma VDI/VDE 3845. (mayor información en la pág. 2.2.5.3)



Ø32 a 240

Ø270 a 400

Ø	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ø O	Conex.
32 (SE)	112	45	51	71	22.5	28.5	12	50	25	-	F03	-	M5×8	9	40	G1/8"
32 (DE)	142	45	51	71	22.5	28.5	12	50	25	-	F03	-	M5×8	9	40	G1/8"
40 (SE)	124	59.5	83	86	36.4	24	14	80	30	F05	F03	M6×9	M5×8	11	40	G1/4"
40 (DE)	149	59.5	83	86	36.4	24	14	80	30	F05	F03	M6×9	M5×8	11	40	G1/4"
52	163.5	72	55	98	26	42	14	80	30	F05	F03	M6×9	M6×9	11	40	G1/4"
63	181	87.6	71	113	33	47	18	80	30	F07	F05	M8×10	M6×9	14	40	G1/4"
75	207	99.4	80.2	125	38.7	52.5	20	80	30	F07	F05	M8×12	M6×9	14	40	G1/4"
83	213	108.9	91.6	134.5	40	56.5	21	80	30	F07	F05	M8×12	M6×9	17	40	G1/4"
92	258	117	98.3	143	44	59	21	80	30	F07	F05	M8×12	M6×10	17	40	G1/4"
105	287	133	109.5	158.5	52	64	24.5	80	30	F10	F07	M10×15	M8×12	22	40	G1/4"
125	342.5	154.4	127.2	180.5	59.7	74	29	80	30	F10	F07	M10×15	M8×12	22	50	G1/4"
140	411	173.7	138	200	65	77	32	80	30	F12	F10	M12×20	M10×15	27	60	G1/4"
160	488	198	158.3	224	73.8	86.7	34.5	80	30	F12	F10	M12×20	M10×15	27	60	G1/4"
190	544	232.3	188.7	258	85.3	102.8	40	130	30	F14	-	M16×22	-	36	80	G1/4"
210	580	257.6	210.5	284	96.5	113.2	41	130	30	F14	-	M16×24	-	36	80	G1/4"
240	622	291	245	317	115	130	50	130	30	F16	-	M20×26	-	46	80	G3/8"
270	766	330	273	356	126	147	50	130	30	F16	-	M20×26	-	46	80	G1/2"
300	794	354	312	380	140	173	57	130	30	F16	-	M20×26	-	46	80	G1/2'
350	880	410	362	436	164	195	60	130	30	F16	-	M20×26	-	46	80	G1/2'
400	1067	466	450	493	145	145	60	130	30	F25	-	M20×26	-	55	80	G3/4"

**Tabla de torque simple efecto (Nm)**

Ø	Cantidad Resortes	3 bar		4 bar		5 bar		6 bar		7 bar		Torque resorte según carrera actuador	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
32	2					4.76	0.92	6.26	2.42	7.26	3.42	2.74	6.58
40	2					7.59	1.18	9.93	3.52	11.5	5.9	4.13	10.54
52	5	8.48	6.28	12.64	10.44							4	6.2
	6	7.68	4.98	11.84	9.14							4.8	7.5
	7	6.98	3.78	11.14	7.94							5.5	8.7
	8			10.34	6.74	14.5	10.9					6.3	9.9
	9			9.54	5.44	13.7	9.6					7.1	11.2
	10			8.74	4.24	12.9	8.4	17.06	12.56			7.9	12.4
	11					12.1	7.1	16.26	11.26	20.42	15.42	8.7	13.7
12					11.3	5.9	15.46	10.06	19.62	14.22	9.5	14.9	
63	5	15	11.2	22.3	18.5	29.6	25.8					7	10.8
	6	13.5	9	20.8	16.3	28.1	23.7					8.5	12.95
	7	12	6.9	19.4	14.2	26.7	21.5					9.9	15.1
	8			18	12	25.3	19.3	32.6	26.6			11.3	17.3
	9			16.5	9.9	23.9	17.2	31.2	24.52			12.7	19.4
	10			15.3	7.7	22.6	15	29.9	22.3	37.2	29.6	14	21.6
	11			13.8	5.6	21.1	12.9	28.4	20.2	35.7	27.5	15.5	23.7
12					19.7	10.7	27	18	34.3	25.3	16.9	25.9	
75	5	23.4	17.8	35.1	29.5							11.9	17.5
	6	21.1	14.3	32.8	26							14.2	21
	7	18.7	10.8	30.4	22.5							16.6	24.5
	8			28	19	39.8	30.8					19	28
	9			25.7	15.5	37.5	27.3					21.3	31.5
	10			23.3	12	35.1	23.8	46.8	35.5	58.6	47.3	23.7	35
	11					32.7	20.3	44.4	32	56.2	43.8	26.1	38.5
12					30.4	16.8	42.1	28.5	53.9	40.3	28.4	42	
83	5	30.9	23.8	46.1	38.9							14.5	21.7
	6	28.1	19.5	43.3	34.6							17.39	26
	7	25.2	15.1	40.3	30.2							20.3	30.4
	8			37.5	25.9	52.6	41.1					23.2	34.7
	9			34.5	21.5	49.7	36.7					26.1	39.1
	10			31.6	17.2	46.8	32.4	62	47.6	77.1	62.7	29	43.4
	11					43.9	28.1	59.1	43.3	74.2	58.4	31.9	47.7
12					41	23.7	56.2	38.8	71.3	54	34.78	52.08	
92	5	50.28	37.78	75.54	63.03							25.5	38
	6	45.18	30.18	70.44	55.44							30.6	45.6
	7	40.08	22.58	65.34	47.84							35.7	53.2
	8			60.24	40.24	85.5	65.5					40.8	60.8
	9			55.14	32.69	80.4	57.9					45.9	68.4
	10			50.04	25.04	75.3	50.3	100.56	75.56	125.82	100.82	51	76
	11					70.2	42.7	95.46	67.96	120.72	93.22	56.1	83.6
12					65.1	35.1	90.36	60.36	115.6	85.6	61.2	91.2	
105	5	68.6	52	103.6	87							33.2	49.8
	6	61.9	42	96.9	77							39.9	59.8
	7	55.3	32.1	90.3	67.1							46.5	69.7
	8			83.7	57.1	116.6	90					53.1	79.7
	9			77	47.4	109.9	80.3					59.8	89.4
	10			70.4	37.2	103.3	70.1	137.5	104	171.2	138	66.4	99.6
	11					96.7	60.1	130.6	94	164.6	128	73	109.6
12					90	50.2	123.9	64.1	157.9	118.1	79.7	119.5	
125	5	115.5	88	173.8	146.3							59.4	86.9
	6	103.6	70.6	161.9	128.9							71.3	104.3
	7	91.8	53.5	150.1	111.6							83.1	121.6
	8			138.2	94.2	196.5	152.5					95	139
	9			126.3	76.8	184.6	135.1					106.9	156.4
	10			114.4	59.4	172.7	117.7	231	176	277.5	217	118.8	173.8
	11					160.9	100.4	219.2	158.7	277.5	217	130.6	191.1
12					149	83	207.3	141.3	265.6	199.6	142.5	208.5	
140	5	174.7	131.2	262.5	219							88.5	132
	6	157	104.8	244.8	192.6							106.2	158.4
	7	133.9	78.4	227.1	166.2							123.9	184.8
	8			209.4	139.8	297.1	227.5					141.6	211.2
	9			191.7	113.4	279.4	201.1					159.3	237.6
	10			174	87	261.7	174.7	349.4	262.4	437.8	350.1	177	264
	11					244	148.3	331.7	236	419.5	323.8	194.7	290.4
12					226.3	121.9	314	209.6	401.8	297.4	212.4	316.8	
160	5	264.6	197.1	398.3	330.8							136.5	204
	6	237.3	156.2	371	289.8							163.8	244.9
	7	210	115.4	343.7	249.1							191.1	285.7
	8	182.7	74.6	316.4	208.3	450.1	341.9					218.4	326.5
	9			289.1	167.5	422.8	301.2					245.7	367.3
	10			261.8	126.7	395.5	260.4	529.2	394.1	635.6	487	237	408.1
	11					368.2	219.6	501.9	353.3	635.6	487	300.3	448.9
12					340.9	178.8	474.6	312.5	608.3	446.2	327.6	489.7	
190	5	429	320.4	644.5	535.9							217.4	326
	6	385.5	255.5	601	470.7							260.9	391.2
	7	342	190	557.5	405.5							304.4	456.4
	8			514	340.3	729.5	555.8					347.9	521.6
	9			470.6	275.1	686.1	490.6					391.3	586.8
	10			427.1	209.9	642.6	425.4	858.1	640.9	1073.6	856.4	434.8	652
	11					599.1	360.2	814.6	575.7	1030.1	791.2	478.3	717.2
12					555.6	295	771.1	510.5	986.6	726	521.8	782.4	

Ø	Cantidad Resortes	3 bar		4 bar		5 bar		6 bar		7 bar		Torque resorte según carrera actuador	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
210	5	589.6	440.6	885.7	736.7							298.8	447.8
	6	529.8	351.1	825.9	647.2							358.6	537.3
	7	470.1	261.5	766.2	557.6							418.3	626.9
	8			706.4	468.1	1002.5	764.2					478.1	716.4
	9			646.7	375.5	942.8	671.6					537.8	809
	10			586.9	289	883	585.1	1179.1	881.2	1475.2	1177.3	597.6	895.5
	11					823.2	495.5	1119.3	791.6	1415.4	1087.7	657.4	958.1
12					763.5	406	1059.6	702.1	1355.7	998.2	717	1074.6	
240	5	924	690.5	1488.1	1154.6							468.5	702
	6	829.9	550.1	1294	1014.2							562.6	842.4
	7	736.7	409.7	1200.8	873.8							655.8	928.8
	8			1107.1	733.4	1571.3	1197.6					749.5	1123.2
	9			1013.4	593	1477.6	1057.2					843.2	1263.6
	10			919.7	452.6	1383.9	916.8	1848.1	1381	2312.2	1845.1	936.9	1404
	11					1290.2	776.4	1754.4	1240.6	2218.5	1704.7	1030.6	1544.4
12					1196.5	636	1660.7	1100.2	2124.8	1564.3	1124.3	1684.8	
270	5	1299.7	971.2	1952.4	1623.9							658.5	987
	6	1168	773.8	1820.7	1426.5							790.2	1184.4
	7	1036.3	576.4	1689	1229.1							921.9	1381.8
	8			1557.3	1031.7	2210	1684.4					1053.6	1579.2
	9			1425.6	834.3	2078.3	1487					1185.3	1776.6
	10			1293.9	636.9	1946.6	1289.6	2599.3	1942.3	3252	2595	1317	1974
	11					1814.9	1092.2	2467.6	1744.9	3120.3	2397.6	1448.7	2171.4
12					1683.2	894.8	2335.9	1547.5	2988.6	2200.2	1580.4	2368.8	
300	5	1603	1183									800	1220
	6	1483	1066									920	1337
	7	1330	844	2132	1646							1073	1559
	8	1177	621	1979	1423	2780	2224					1226	1782
	9			1825	1201	2626	2002	3427	2803			1380	2004
	10			1652	977	2473	1778	3274	2579	4075	3380	1533	2228
	11					2320	1556	3121	2357	3922	3158	1686	2450
12					2014	1077	2815	1878	3686	2679	1022	2929	
350	5	2399	1739									1199	1859
	6	2120	1453									1478	2145
	7	1874	1096	3074	2296							1724	2502
	8	1627	738	2827	1938	4027	3138					1971	2860
	9			2580	1581	3780	2781	4979	3980			2218	3217
	10			2335	1223	3535	2423	4734	3622	5934	4822	2463	3575
	11					3288	2066	4487	3265	5687	4465	2710	3932
12					3120	1537	4319	2736	5519	3936	2878	4461	
400	5	3418	2479									1709	2648
	6	2922	1670									2205	3457
	7	2647	1239	4357	2949							2480	3888
	8	2372	806	4082	2516	5191	4225					2755	4321
	9			3806	2085	5515	3794	7224	5503			3031	4572
	10			3531	1652	5240	3361	6949	5070	8658	6779	3306	5185
	11					4963	2930	6672	4639	8381	6348	3583	5616
12					4445	2190	6154	3822	8106	5608	4101	6356	

**Tabla de torque doble efecto (Nm)**

Ø	Presión (bar)						
	2	3	4	5	6	7	8
32	2.78	4.2	6	7.5	9	10	11.5
40	4.44	6.56	9.83	11.72	14.06	15.63	17.97
52	8.32	12.48	16.64	20.8	24.96	29.12	33.28
63	14.64	21.96	29.28	36.6	43.92	51.24	58.56
75	23.5	35.3	47	58.8	70.5	82.3	94
83	29.7	44.5	59.4	74.2	89.1	103.9	118.8
92	45.5	68.2	91.1	113.7	136.4	159.2	181.9
105	67.88	101.82	136.76	169.7	203.64	237.58	271.52
125	116.6	174.9	233.2	291.5	349.8	408.1	466.4
140	175.48	263.22	350.96	438.7	526.44	614.18	701.92
160	267.4	401.1	534.8	668.5	802.2	935.9	1069.6
190	430.96	646.44	861.9	1070.4	1292.9	1508.4	1723.8
210	592.2	888.4	1184.5	1480.6	1776.7	2072.8	2369
240	831.9	1220.8	1627.8	2030.7	2444.6	2848.6	3255.5
270	1305.4	1958.2	2610.9	3243.6	3916.3	4569	5221.8
300	1602	2403	3205	4006	4807	5608	6409
350	2399	3598	4798	5998	7197	8397	9596
400	3418	5127	6837	8546	10255	11964	13673