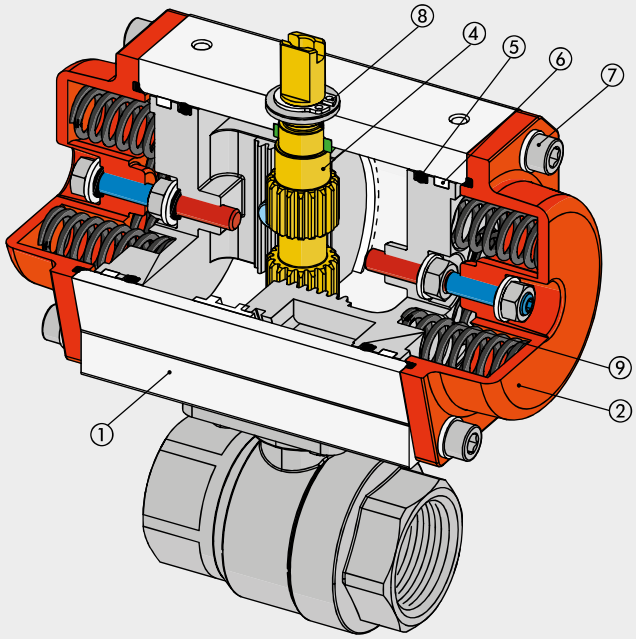
ACTUATED VALVES SERIES RV-FLUID

Actuated valves in the RV-FLUID series consist of a pneumatic rotary actuator series R4 that controls a ball or a butterfly valve.
Ball valves come in the 2- and the 3-way version, with nickel-plated brass or stainless steel body.
Butterfly valves are available with a painted cast iron body and nickel-plated cast iron lens. The actuator is the rack-and-pinion type, with an aluminium body processed with thick hard anodization and powder-coated heads.
It is available in the single-acting version or double-acting version, and allows the valve to rotate by 90 degrees with limit switch adjustment on both ends.
Operation is the pinion-and-rack type, a technology characterised by the constant supply of torque during the entire rotation.
The control valve can be applied either directly to the actuator thanks to the NAMUR VDI\VDE-3845 interface or remotely using the threaded connections on the body.
A specific accessory (switch box) can be installed on the actuator to detect the limit switch positions.

COMPONENTS OF THE PNEUMATIC ROTARY ACTUATOR SERIES R4 (COMMON TO ALL TYPES OF RV-FLUID VALVES)



① BODY: hard anodized extruded aluminium
② END CAP: pressure die-cast aluminium with polyester powdercoating
③ PISTON: anodized pressure die-cast aluminium
④ SHAFT WITH PINION: nickel-plated carbon steel
⑤ GASKETS: NBR
⑥ SLIDING GUIDES: acetal resin
⑦ SCREWS AND WASHERS: stainless steel
⑧ SEEGER: zinc-plated carbon steel
⑨ SPRINGS (for single-acting versions only): carbon steel with polyester powder coating

ACTUATED BALL VALVES SERIES RV-FLUID

Actuated ball valves are the floating type, available in the 2- and 3-way versions (the latter with an L- or T-shaped ball holes). The body is made of nickel-plated moulded brass or micro-cast stainless steel with PTFE seats.
All valves are available with GAS female threading, while the ones made of stainless steel can also be supplied with a wafer-type flanged connection.

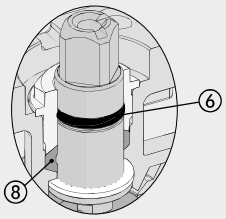
TECHNICAL DATA		BRASS	STAINLESS STEEL
VALVES			
Max operating pressure *	bar	40	63
	MPa	4	6.3
	psi	580	913.5
Fluid temperature	°C	-20 to +130	-25 to +180
Ambient temperature	°C	-20 to +80	
Usable fluids / Materials compatibility		Valves that can be used with neutral or slightly aggressive liquid and gas fluids. (Refer to the tables of chemical compatibility of materials in contact with the fluid on www.metalwork.it or contact Metal Work technical service)	
Nominal diameter (DN)	mm	8 to 80	8 to 80
Mounting position		Any, except that with actuator downwards, which is not recommended	
Threaded connections standard		ISO 7-1	
Note		High- and low-temperature versions on request	
ROTARY ACTUATOR			
Operating pressure	bar	6 to 10	
	MPa	0.6 to 1	
	psi	87 to 145	
Ambient temperature	°C	-20 to +80	
Fluid		20 µm filtered, unlubricated air	

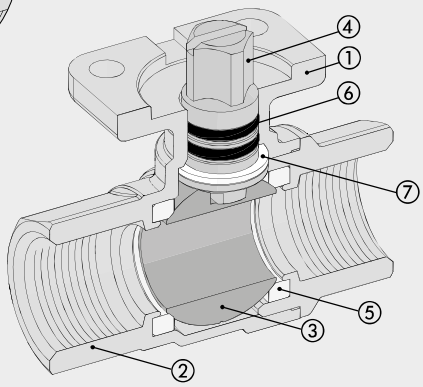
* The maximum working pressure varies with temperature. See the "Max. pressure/temperature chart".

2-WAY AND 3-WAY BRASS ACTUATED BALL VALVES COMPONENTS

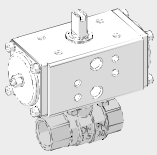
① BODY: nickel-plated brass
② SLEEVE: nickel-plated brass
③ BALL: nickel-plated brass
④ PIN: brass
⑤ BALL SEATS: teflon®
⑥ PIN GASKETS (O-rings): FKM/FPM
⑦ ANTI-FRICTION RING: teflon®
⑧ SEAL: teflon®

Close-up of 2-way 1/4", 3/8" and 3-way versions

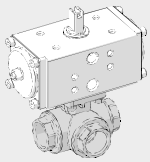




2-WAY



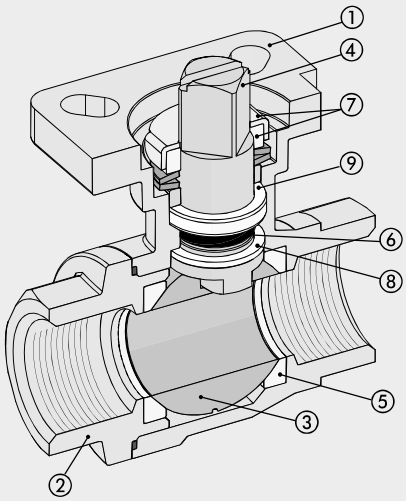
3-WAY



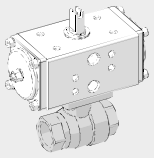
METAL WORK PNEUMATIC

2-WAY AND 3-WAY STAINLESS STEEL ACTUATED BALL VALVES COMPONENTS

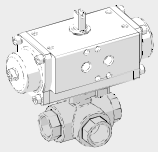
① BODY: AISI 316 stainless steel
② SLEEVE: AISI 316 stainless steel
③ BALL: AISI 316 stainless steel
④ PIN: AISI 316 stainless steel
⑤ BALL SEATS: loaded teflon®
⑥ PIN GASKET (O-ring): FKM/FPM
⑦ NUT AND NUT HOLDER: AISI 304 stainless steel
⑧ ANTI-FRICTION RING: teflon®
⑨ SEAL: teflon®



2-WAY

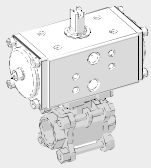


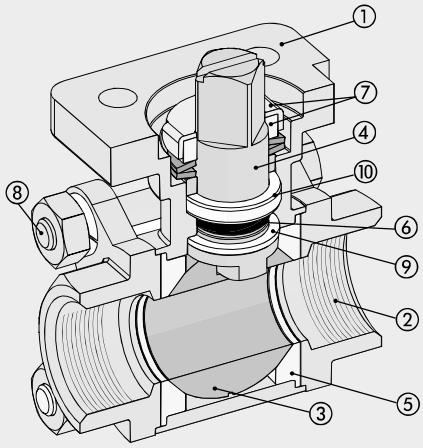
3-WAY



3-PIECE STAINLESS STEEL ACTUATED BALL VALVES COMPONENTS

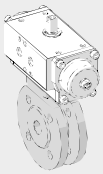
① BODY: AISI 316 stainless steel
② FLANGED SLEEVE: AISI 316 stainless steel
③ BALL: AISI 316 stainless steel
④ PIN: AISI 316 stainless steel
⑤ BALL SEATS: loaded teflon®
⑥ PIN GASKET (O-ring): FKM/FPM
⑦ NUT AND NUT HOLDER: AISI 304 stainless steel
⑧ TIE ROD: AISI 316 stainless steel
⑨ ANTI-FRICTION RING: teflon®
⑩ SEAL: teflon®

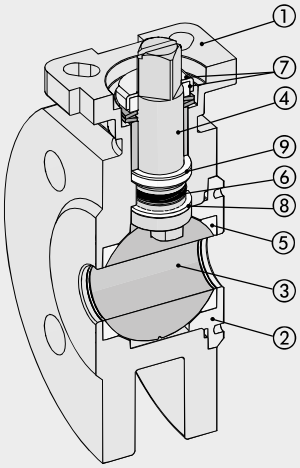




WAFER STAINLESS STEEL ACTUATED BALL VALVES COMPONENTS

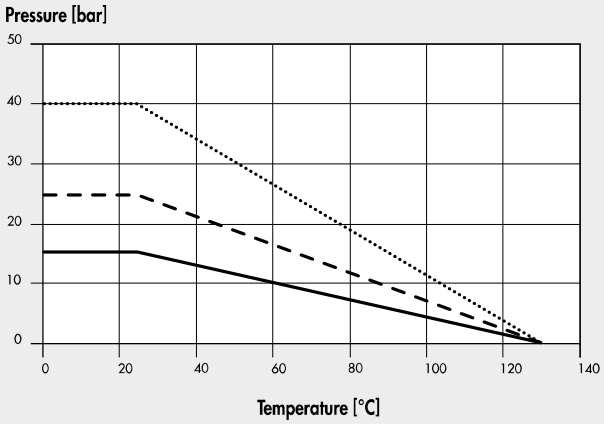
① BODY: AISI 316 stainless steel
② RING: AISI 316 stainless steel
③ BALL: AISI 316 stainless steel
④ PIN: AISI 316 stainless steel
⑤ BALL SEATS: loaded teflon®
⑥ PIN GASKET (O-ring): FKM/FPM
⑦ NUT AND NUT HOLDER: AISI 304 stainless steel
⑧ ANTI-FRICTION RING: teflon®
⑨ SEAL: teflon®





MAX. PRESSURE/TEMPERATURE CHART

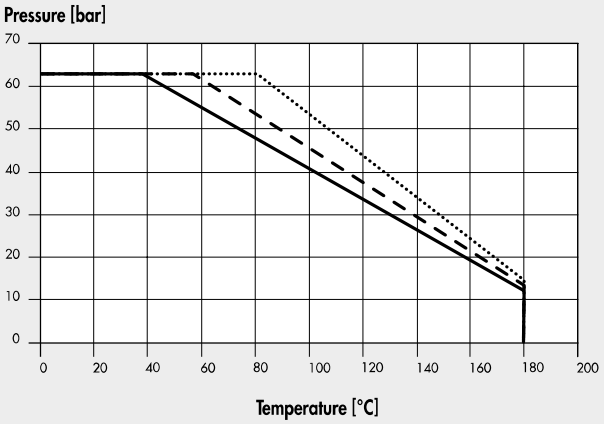
2-way and 3-way brass actuated ball valves



..... 1/4" - 3/8" - 1/2" - 3/4" - 1" - 1 ¼" ——— 3"

– – – – 1 ½" - 2" - 2 ½"

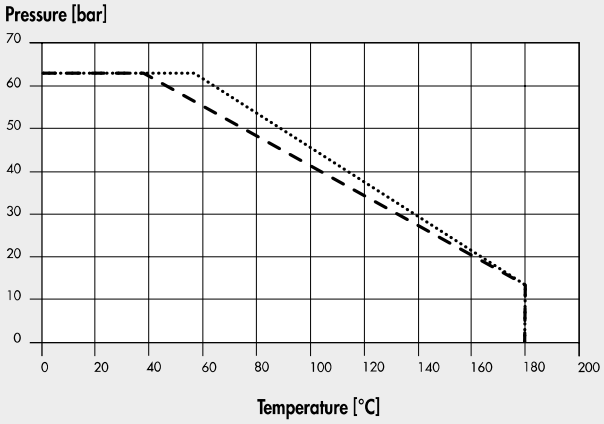
2-way and 3-piece stainless steel actuated ball valves



..... 1/4" - 3/8" - 1/2" - 3/4" - 1" ——— 2" - 3"

– – – – 1 ¼" - 1 ½"

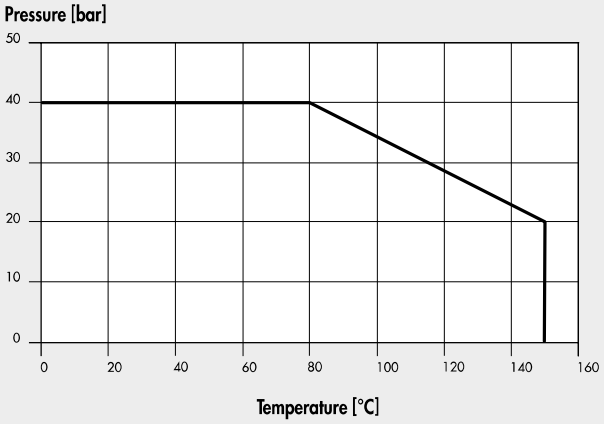
3-way stainless steel actuated ball valves



..... 1/4" - 3/8" - 1/2" - 3/4" - 1" - 1 ¼"

– – – – 1 ½" - 2"

WAFER stainless steel actuated ball valves



——— 1/2" - 2"

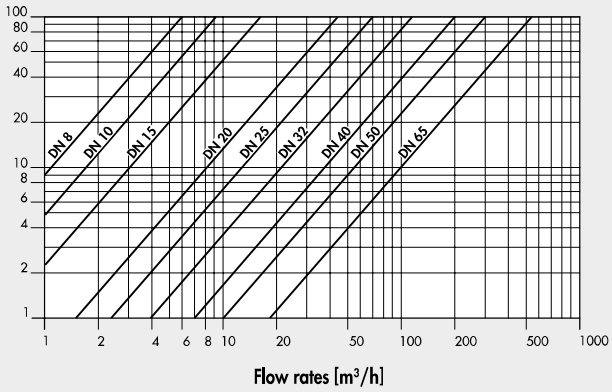
NOTES

METAL WORK PNEUMATIC

LOAD LOSS CHART (reference fluid water at 20°C)

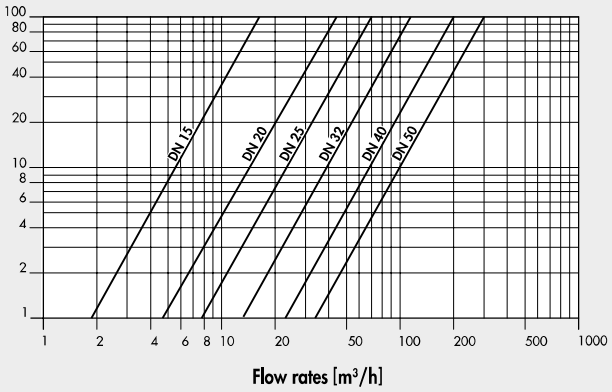
2-way brass actuated ball valves

Load loss [ΔP = mbar]



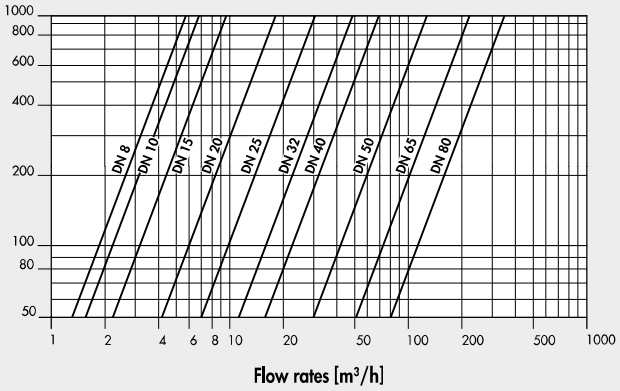
3-way brass actuated ball valves

Load loss [ΔP = mbar]



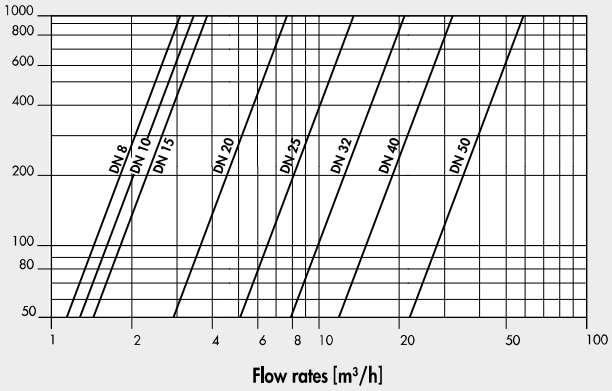
2-way and 3-piece stainless steel actuated ball valves

Load loss [ΔP = mbar]



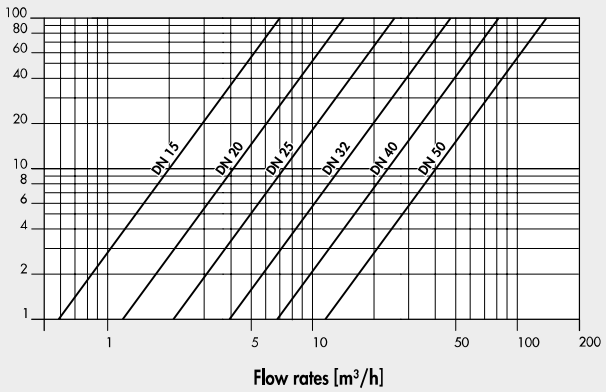
3-way stainless steel actuated ball valves

Load loss [ΔP = mbar]

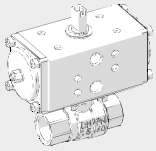


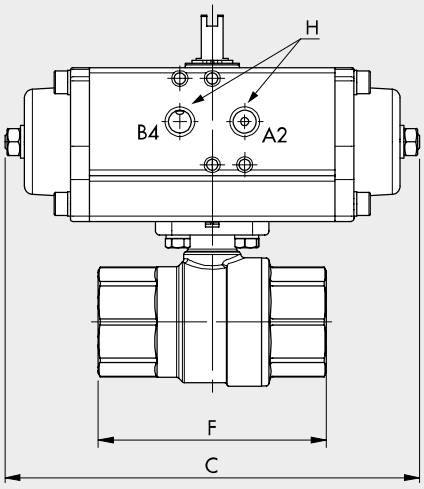
WAFER stainless steel actuated ball valves

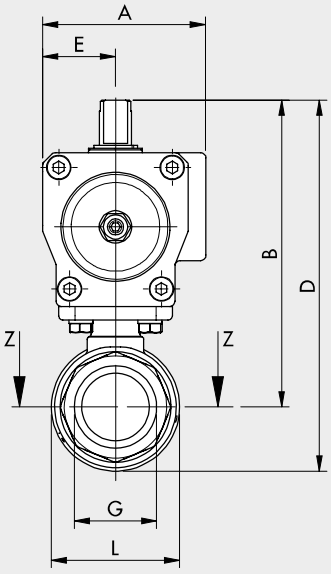
Load loss [ΔP = mbar]

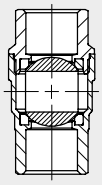


2-WAYS BRASS ACTUATED BALL VALVES









- Position of the ball with "B4" port powered actuator for double-acting versions.
- Position of the ball with actuator at rest for single-acting versions.

Single-acting

Double-acting

SINGLE-ACTING

Code	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300090	8	1/4"	60.5	115	160	130.5	27	75	1/8"	33	5.9	40	42	1342
W0900300091	10	3/8"	60.5	115	160	130.5	27	75	1/8"	33	9.4	40	42	1320
W0900300092	15	1/2"	60.5	106	160	122	27	61	1/8"	32	17	40	42	1147
W0900300093	20	3/4"	75	121	139	140	33.5	69.5	1/8"	39	41	40	50	1515
W0900300094	25	1"	86	141	152	164.5	38	84.5	1/4"	48	70	40	63	2338
W0900300095	32	1 ¼"	86	151	152	181	38	98.5	1/4"	60	121	40	63	2670
W0900300096	40	1 ½"	94	173	205	208	42.5	110	1/4"	70	200	25	75	2959
W0900300097	50	2"	94	184	205	227	42.5	130	1/4"	86	292	25	75	5360
W0900300098	65	2 ½"	104	213	230	266.5	49	161	1/4"	106.5	535	25	85	8436
W0900300099	80	3"	104	225	230	292	49	183	1/4"	134	850	25	85	10750

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

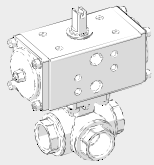
DOUBLE-ACTING

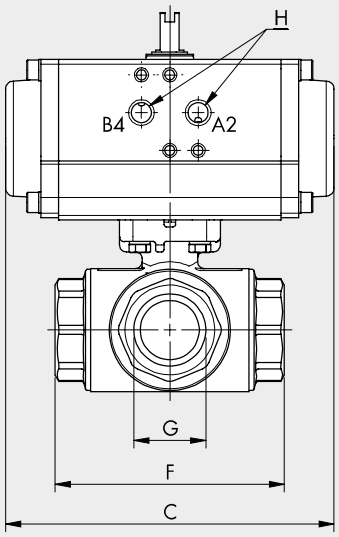
Code	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300101	8	1/4"	49	103	117	120	23.5	75	1/8"	33	5.9	40	32	832
W0900300102	10	3/8"	49	103	117	120	23.5	75	1/8"	33	9.4	40	32	810
W0900300103	15	1/2"	49	94.5	117	110.5	23.5	61	1/8"	32	17	40	32	637
W0900300104	20	3/4"	49	98	117	117.5	23.5	69.5	1/8"	39	41	40	32	735
W0900300105	25	1"	60.5	113.5	160	137.5	27	84.5	1/8"	48	70	40	42	1408
W0900300106	32	1 ¼"	75	135.5	139	165	33.5	98.5	1/8"	60	121	40	50	1940
W0900300107	40	1 ½"	86	156.5	152	191.5	38	110	1/4"	70	200	25	63	2759
W0900300108	50	2"	86	167.5	152	210.5	38	130	1/4"	86	292	25	63	3590
W0900300109	65	2 ½"	86	186.5	152	239.5	38	161	1/4"	106.5	535	25	63	5206
W0900300110	80	3"	94	214.5	205	281.5	42.5	183	1/4"	134	850	25	75	8820

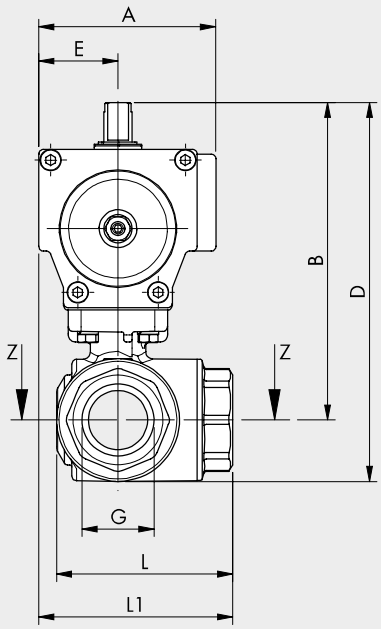
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

METAL WORK PNEUMATIC

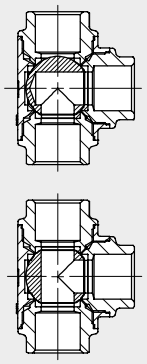
3-WAYS BRASS ACTUATED BALL VALVES







SEZ. Z-Z



- Position of the ball with "B4" port powered actuator for double-acting versions.
- Position of the ball with actuator at rest for single-acting versions.

SINGLE-ACTING

Code for L-shaped ball hole	Code for T-shaped ball hole	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	L1	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300141	W0900300151	8	1/4"	60.5	114.5	160	131.5	27	64.5	1/8"	49.5	59	5.9	40	42	1625
W0900300142	W0900300152	10	3/8"	60.5	114.5	160	131.5	27	64.5	1/8"	49.5	59.5	9.4	40	42	1597
W0900300143	W0900300153	15	1/2"	75	126	139	143	33.5	64.5	1/8"	49.5	66	17	40	50	1741
W0900300144	W0900300154	20	3/4"	86	146	152	167	38	76	1/4"	59.5	76	41	40	63	2614
W0900300145	W0900300155	25	1"	86	150	152	176	38	97	1/4"	74.5	86.5	70	40	63	3117
W0900300146	W0900300156	32	1 ¼"	94	181	205	217	42.5	118	1/4"	95.5	101.5	121	40	75	6465
W0900300147	W0900300157	40	1 ½"	94	183.5	205	221.5	42.5	135	1/4"	105	110	200	25	75	6737
W0900300148	W0900300158	50	2"	104	204.5	230	247.5	49	157	1/4"	121.5	127.5	292	25	85	9586

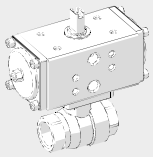
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

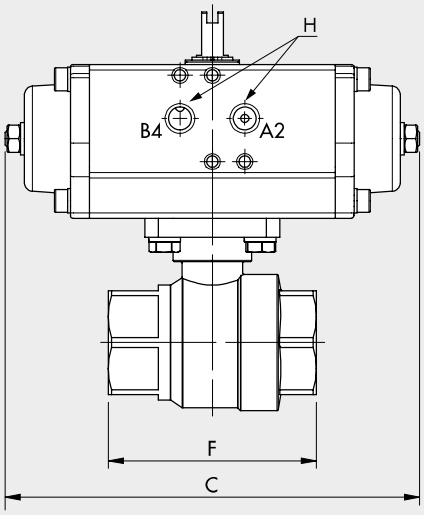
DOUBLE-ACTING

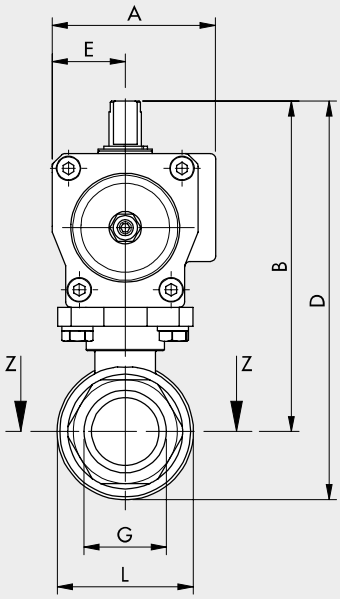
Code for L-shaped ball hole	Code for T-shaped ball hole	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	L1	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300121	W0900300131	8	1/4"	49	103	117	120	23.5	64.5	1/8"	49.5	56	5.9	40	32	1115
W0900300122	W0900300132	10	3/8"	49	103	117	120	23.5	64.5	1/8"	49.5	56	9.4	40	32	1087
W0900300123	W0900300133	15	1/2"	49	103	117	120	23.5	64.5	1/8"	49.5	56	17	40	32	961
W0900300124	W0900300134	20	3/4"	75	130	139	151	33.5	76	1/8"	59.5	71.5	41	40	50	1884
W0900300125	W0900300135	25	1"	75	134.5	139	160	33.5	97	1/8"	74.5	82	70	40	50	2387
W0900300126	W0900300136	32	1 ¼"	75	149	139	185	33.5	118	1/8"	95.5	92.5	121	40	50	4165
W0900300127	W0900300137	40	1 ½"	86	167	152	205	38	135	1/4"	105.5	105.5	200	25	63	4967
W0900300128	W0900300138	50	2"	86	178	152	221	38	157	1/4"	121.5	116.5	292	25	63	6356

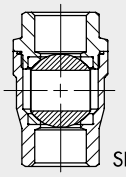
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

2-WAYS STAINLESS STEEL ACTUATED BALL VALVES









- Position of the ball with "B4" port powered actuator for double-acting versions.
- Position of the ball with actuator at rest for single-acting versions.

Single-acting

Double-acting

SINGLE-ACTING

Code	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300009	10	1/4"	60.5	113.5	160	131	27	56	1/8"	35	5.6	63	42	1300
W0900300010	10	3/8"	60.5	113.5	160	131	27	56	1/8"	35	6.8	63	42	1280
W0900300011	15	1/2"	60.5	113.5	160	131	27	57	1/8"	35	9.6	63	42	1300
W0900300012	20	3/4"	75	131	139	152	33.5	64	1/8"	42	17.9	63	50	1690
W0900300013	25	1"	86	149.5	152	175	38	77	1/4"	51	30	63	63	2540
W0900300014	32	1 ¼"	86	157.5	152	189.5	38	90	1/4"	64	49	63	63	2980
W0900300015	40	1 ½"	94	180	205	218	42.5	105	1/4"	76	68	63	75	5310
W0900300016	50	2"	94	190	205	233.5	42.5	125	1/4"	91	126	63	75	6270

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

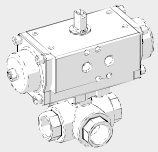
DOUBLE-ACTING

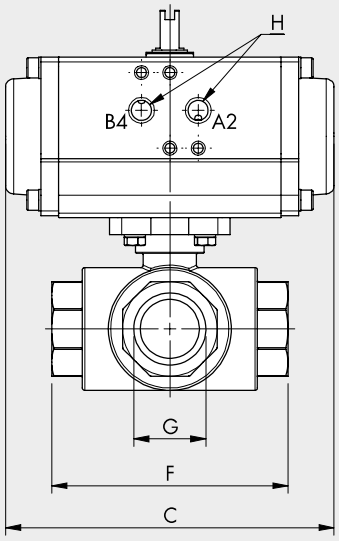
Code	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300001	10	1/4"	49	102	117	119.5	23.5	56	1/8"	35	5.6	63	32	790
W0900300002	10	3/8"	49	102	117	119.5	23.5	56	1/8"	35	6.8	63	32	770
W0900300003	15	1/2"	49	102	117	119.5	23.5	57	1/8"	35	9.6	63	32	790
W0900300004	20	3/4"	49	108	117	129	23.5	64	1/8"	42	17.9	63	32	910
W0900300005	25	1"	60.5	122.5	160	147.5	27	77	1/8"	51	30	63	42	1610
W0900300006	32	1 ¼"	75	142	139	173.5	33.5	90	1/8"	64	49	63	50	2250
W0900300007	40	1 ½"	86	163.5	152	201.5	38	105	1/4"	76	68	63	63	3540
W0900300008	50	2"	94	188	205	233.5	42.5	125	1/4"	91	126	63	75	5800

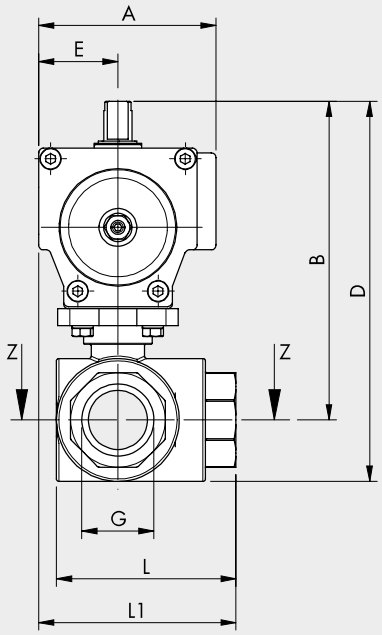
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

METAL WORK PNEUMATIC

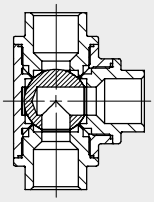
3-WAYS STAINLESS STEEL ACTUATED BALL VALVES



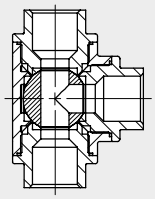




SEZ. Z-Z

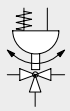


L-shaped ball hole

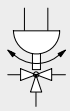


T-shaped ball hole

- Position of the ball with "B4" port powered actuator for double-acting versions.
- Position of the ball with actuator at rest for single-acting versions.



Single-acting



Double-acting

SINGLE-ACTING

Code for L-shaped ball hole	Code for T-shaped ball hole	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	L1	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300161	W0900300171	8	1/4"	86	140.5	152	158.5	38	75	1/4"	55.5	75.5	3.2	63	63	2500
W0900300162	W0900300172	10	3/8"	86	140.5	152	158.5	38	75	1/4"	55.5	75.5	3.4	63	63	2470
W0900300163	W0900300173	15	1/2"	86	140.5	152	158.5	38	75	1/4"	55.5	75.5	3.8	63	63	2430
W0900300164	W0900300174	20	3/4"	86	144.5	152	165.5	38	85	1/4"	63.5	80.5	7.7	63	63	2740
W0900300165	W0900300175	25	1"	94	167	205	193	42.5	100	1/4"	76	92.5	13.7	63	75	4760
W0900300166	W0900300176	32	1 ¼"	94	176	205	210	42.5	122	1/4"	95	103.5	20.5	63	75	6280
W0900300167	W0900300177	40	1 ½"	120	204.5	275	243.5	55	131	1/4"	104.5	120.5	31.5	63	100	10480
W0900300168	W0900300178	50	2"	134	243.5	309	293	63.5	158	1/4"	129	142.5	58	63	115	16610

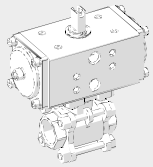
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

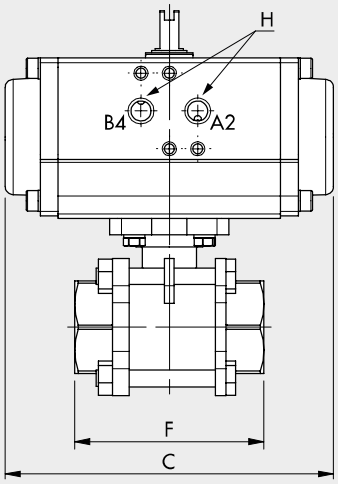
DOUBLE-ACTING

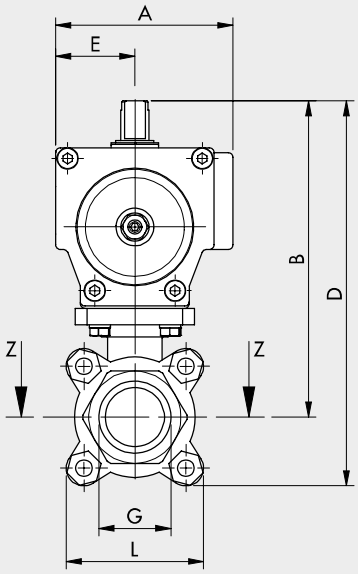
Code for L-shaped ball hole	Code for T-shaped ball hole	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	L1	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300080	W0900300112	8	1/4"	60.5	113.5	160	131.5	27	75	1/8"	55.5	64.5	3.2	63	42	1570
W0900300081	W0900300113	10	3/8"	60.5	113.5	160	131.5	27	75	1/8"	55.5	64.5	3.4	63	42	1540
W0900300082	W0900300114	15	1/2"	60.5	113.5	160	131.5	27	75	1/8"	55.5	64.5	3.8	63	42	1500
W0900300083	W0900300115	20	3/4"	60.5	117.5	160	138.5	27	85	1/8"	63.5	69.5	7.7	63	42	1810
W0900300084	W0900300116	25	1"	75	135	139	161	33.5	100	1/8"	76	83.5	13.7	63	50	2460
W0900300085	W0900300117	32	1 ¼"	86	159.5	152	193.5	38	122	1/4"	95	99	20.5	63	63	4510
W0900300086	W0900300118	40	1 ½"	94	180	205	219	42.5	131	1/4"	104.5	108	31.5	63	75	6560
W0900300087	W0900300119	50	2"	94	191	205	240.5	42.5	158	1/4"	129	121.5	58	63	75	9210

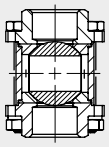
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

3-PIECE STAINLESS STEEL ACTUATED BALL VALVES









SEZ. Z-Z

- Position of the ball with "B4" port powered actuator for double-acting versions.
- Position of the ball with actuator at rest for single-acting versions.

Single-acting

Double-acting

SINGLE-ACTING

Code	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300201	10	1/4"	75	121	139	141	33.5	48	1/8"	40	5.6	63	50	1610
W0900300202	10	3/8"	75	121	139	141	33.5	48	1/8"	40	6.8	63	50	1600
W0900300203	15	1/2"	75	125	139	146	33.5	54	1/8"	42	9.6	63	50	1650
W0900300204	20	3/4"	86	145.5	152	171.5	38	73	1/4"	52	17.9	63	63	2660
W0900300205	25	1"	94	166	205	195	42.5	80	1/4"	58	30	63	75	4590
W0900300206	32	1 ¼"	94	174	205	210	42.5	90	1/4"	72	49	63	75	5250
W0900300207	40	1 ½"	94	180	205	220.5	42.5	102	1/4"	81	68	63	75	6150
W0900300208	50	2"	104	198.5	230	244.5	49	118	1/4"	92	126	63	85	8390
W0900300209	65	2 ½"	120	244.5	275	312.5	55	151	1/4"	154	226	63	100	14020
W0900300210	80	3"	163	318	392	398.5	80	182	1/4"	182	355	63	145	22400

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

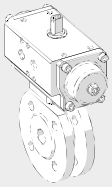
DOUBLE-ACTING

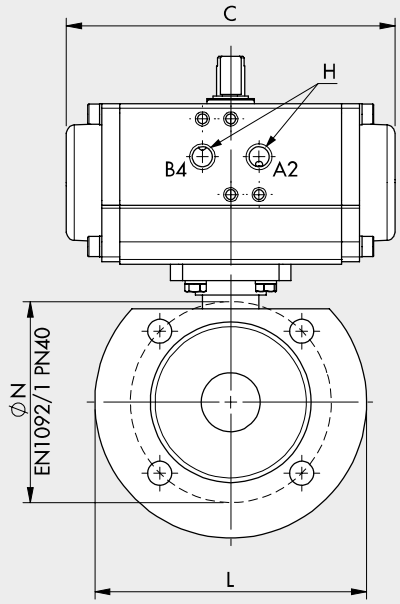
Code	DN (nominal diameter)	G	A	B	C	D	E	F	H	L	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300181	10	1/4"	49	98	117	118	23.5	48	1/8"	40	5.6	63	32	830
W0900300182	10	3/8"	49	98	117	118	23.5	48	1/8"	40	6.8	63	32	820
W0900300183	15	1/2"	49	102	117	123	23.5	54	1/8"	42	9.6	63	32	870
W0900300184	20	3/4"	60.5	118.5	160	144.5	27	73	1/8"	52	17.9	63	42	1730
W0900300185	25	1"	75	134	139	163	33.5	80	1/8"	58	30	63	50	2290
W0900300186	32	1 ¼"	86	157.5	152	193.5	38	90	1/4"	72	49	63	63	3480
W0900300187	40	1 ½"	86	163.5	152	204	38	102	1/4"	81	68	63	63	4380
W0900300188	50	2"	94	188	205	234	42.5	118	1/4"	92	126	63	75	6460
W0900300189	65	2 ½"	94	220	205	288	42.5	151	1/4"	154	226	63	75	10100
W0900300190	80	3"	120	257.5	275	338	55	182	1/4"	182	355	63	100	17900

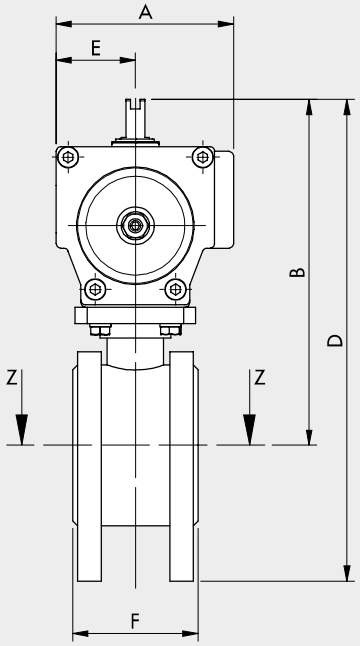
* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

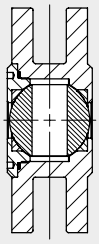
METAL WORK PNEUMATIC

WAFER STAINLESS STEEL ACTUATED BALL VALVES









SEZ. Z-Z

- Position of the ball with "B4" port powered actuator for double-acting versions.
- Position of the ball with actuator at rest for single-acting versions.

Single-acting

Double-acting

SINGLE-ACTING

Code	DN (nominal diameter)	A	B	C	D	E	F	H	L	ØN	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300031	15	86	159	152	206.5	38	36	1/4"	95	65	22.3	40	63	2910
W0900300032	20	86	164	152	216.5	38	38	1/4"	105	75	47.7	40	63	3280
W0900300033	25	94	178.5	205	236	42.5	53	1/4"	115	85	83.5	40	75	5300
W0900300034	32	94	190.5	205	260.5	42.5	53	1/4"	140	100	150.4	40	75	6470
W0900300035	40	94	196.5	205	271.5	42.5	65	1/4"	150	110	255	40	75	7570
W0900300036	50	104	215	230	297.5	49	78	1/4"	165	125	435	40	85	10200

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

DOUBLE-ACTING

Code	DN (nominal diameter)	A	B	C	D	E	F	H	L	ØN	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300021	15	60.5	132	160	179	27	36	1/8"	95	65	22.3	40	42	1980
W0900300022	20	60.5	137	160	189	27	38	1/8"	105	75	47.7	40	42	2350
W0900300023	25	75	146.5	139	204	33.5	53	1/8"	115	85	83.5	40	50	3000
W0900300024	32	86	174	152	244	38	53	1/4"	140	100	150.4	40	63	4700
W0900300025	40	86	180	152	255	38	65	1/4"	150	110	255	40	63	5800
W0900300026	50	86	188	152	270.5	38	78	1/4"	165	125	435	40	63	6970

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

ACTUATED BUTTERFLY VALVES SERIES RV-FLUID

Actuated throttle valves with a Wafer-type connection and centred disc are mainly used to choke and regulate large flow rates. The body is made of painted cast iron, nickel-plated cast iron lens with EPDM seals. A position indicator can be applied to the actuator using special position-sensing switch-boxes.

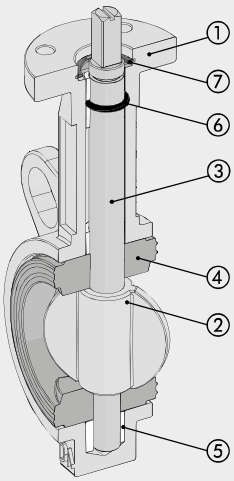
TECHNICAL DATA

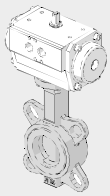
VALVES		
Max operating pressure *	bar	16
	MPa	1.6
	psi	232
Fluid temperature	°C	-10 to +120
Ambient temperature	°C	-20 to +80
Usable fluids / Materials compatibility		Valves that can be used with neutral or slightly aggressive liquid and gas fluids. (Refer to the tables of chemical compatibility of materials in contact with the fluid on www.metalwork.it or contact Metal Work technical service)
Nominal diameter (DN)	mm	50 to 200
Mounting position		Any, except that with actuator downwards, which is not recommended
Note		High- and low-temperature versions on request
ROTARY ACTUATOR		
Operating pressure	bar	6 to 10
	MPa	0.6 to 1
	psi	87 to 145
Ambient temperature	°C	-20 to +80
Fluid		20 µm filtered, unlubricated air

* The maximum working pressure varies with temperature. See the "Max. pressure/temperature chart".

COMPONENTS

① BODY: lamellar cast iron coated with epoxy-resin enamel
② DISK: nickel-plated spheroidal cast iron
③ ROD: AISI 420 stainless steel
④ SLEEVE: EPDM
⑤ ROD GUIDE BUSHING: teflon®
⑥ ROD SEALS: FKM/FPM
⑦ SEEGER: zinc-plated carbon steel

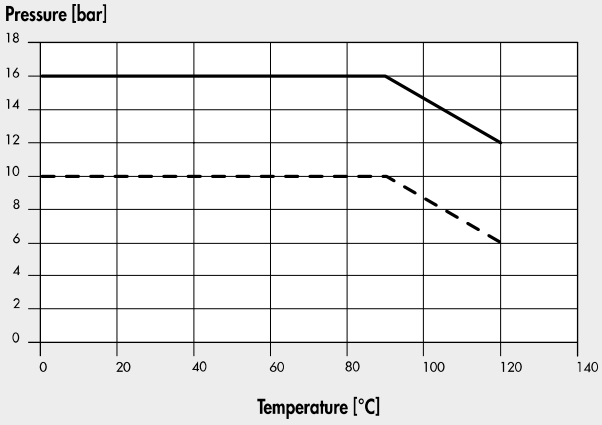




METAL WORK PNEUMATIC

MAX. PRESSURE/TEMPERATURE CHART

Actuated Butterfly valves

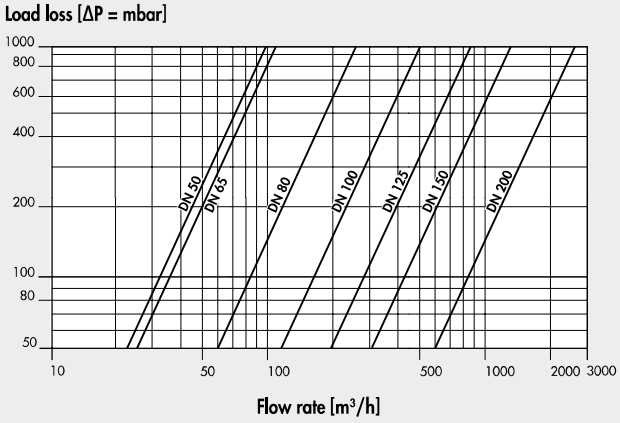


Installation between flanges

Installation at end of lines

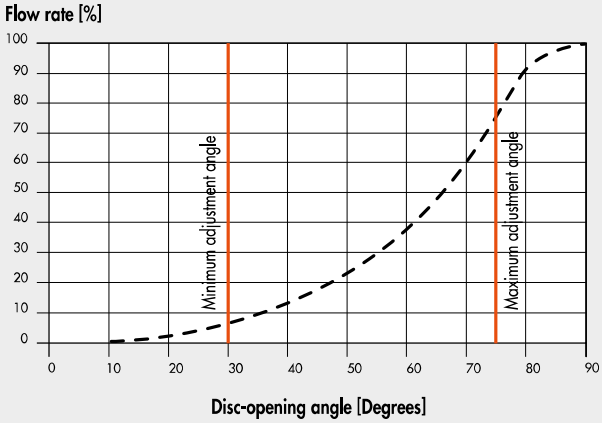
LOAD LOSS CHART (reference fluid water at 20°C)

Actuated Butterfly valves

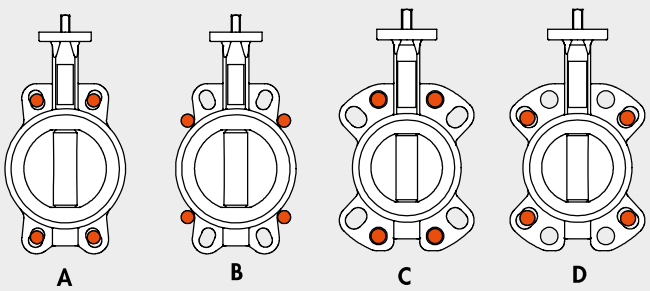


FLOW RATE TO THE DISC-OPENING ANGLE CHART

Actuated Butterfly valves



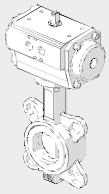
CONFIGURATION FLANGE FIXING SCREWS

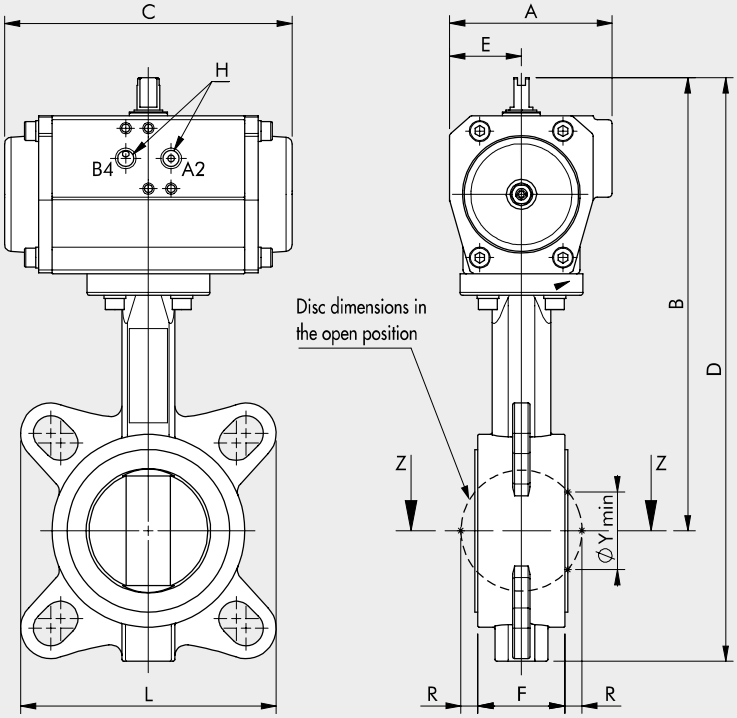


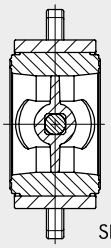
Type flange	Valve size						
	50	65	80*	100	125	150	200
PN6 EN1092	A	A	D	B	A	A	A
PN10 EN1092	A	A	C	A	A	A	A
PN16 EN1092	A	A	C	A	A	A	A
#150 ANSI B16.5	A	A	D	A	A	A	A

* For DN80 PN10-16 with 4 holes see configuration D.

ACTUATED BUTTERFLY VALVES







- Position of the disc with "B4" port powered actuator for double-acting versions.
- Position of the disc with actuator at rest for single-acting versions.


Single-acting


Double-acting

SINGLE-ACTING

Code	DN (nominal diameter)	A	B	C	D	E	F	H	L	R	ØY min	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300051	50	94	246	205	308	42.5	43	1/4"	121	5	31	99	16	75	5470
W0900300052	65	94	256	205	325	42.5	46	1/4"	135	9	45	108	16	75	5770
W0900300053	80	104	280	230	370	49	46	1/4"	146	17	65	261	16	85	8030
W0900300054	100	120	314.5	275	422.5	55	52	1/4"	108	26	90	518	16	100	11120
W0900300055	125	134	352.5	309	471.5	63.5	56	1/4"	119	34	110	883	16	115	16600
W0900300056	150	134	372.5	309	504	63.5	56	1/4"	131	50	146	1364	16	115	18100
W0900300057	200	163	435	392	601	80	60	1/4"	156	71	194	2716	16	145	34000

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

DOUBLE-ACTING

Code	DN (nominal diameter)	A	B	C	D	E	F	H	L	R	ØY min	Kv factor [m³/h]	Max pressure * [bar]	R4 rotary actuator bore	Weight [g]
W0900300041	50	86	229.5	152	291.5	38	43	1/4"	121	5	31	99	16	63	3700
W0900300042	65	86	239.5	152	308.5	38	46	1/4"	135	9	45	108	16	63	4000
W0900300043	80	86	253.5	152	343.5	38	46	1/4"	146	17	65	261	16	63	4800
W0900300044	100	94	290	205	397.5	42.5	52	1/4"	108	26	90	518	16	75	7200
W0900300045	125	94	300	205	419	42.5	56	1/4"	119	34	110	883	16	75	9200
W0900300046	150	104	330	230	461.5	49	56	1/4"	131	50	146	1364	16	85	12000
W0900300047	200	134	402.5	309	568.5	80	60	1/4"	156	71	194	2716	16	115	24200

* The maximum operating pressure varies with the temperature. See the "Max. pressure/temperature chart".

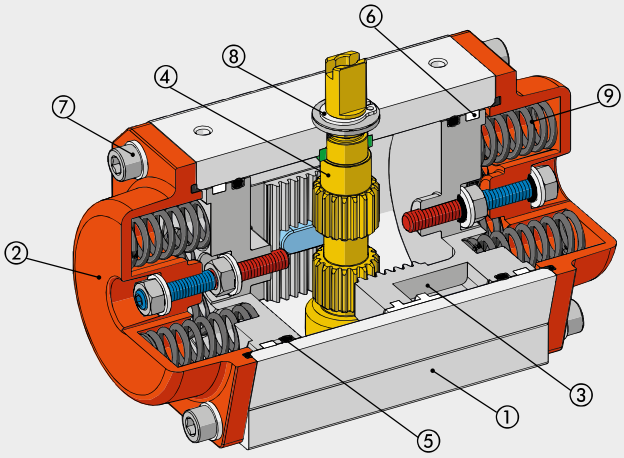
ROTARY ACTUATOR SERIES R4

Sturdy, compact rotary actuators, suitable for operating industrial valves with ISO 5211 mounting flange and 0-90° swivel angle.
The R4 actuator is the double-rack type, a technology that ensures constant twisting torque during rotation.
The control valve can be fitted directly to the actuator using the NAMUR VDI\VDE-3845 interface or can be controlled remotely using the existing G (BSP) threaded connections.
On the actuator, you can install specific accessories for the detection of limit switch positions (switch box).
Given its specific application, the R4 actuator features high torque and reduced bending moment supported by the shaft.

TECHNICAL DATA			Ø 32	Ø 42	Ø 50	Ø 63	Ø 75	Ø 85	Ø 100	Ø 115	Ø 125	Ø 145
Operating pressure		bar	3 to 8									
		MPa	0.3 to 0.8									
		psi	43 to 116									
Temperature range		°C	-20 to +80									
Fluid			20 µm filtered, unlubricated air									
Rotation angle			90° ±5° (90°±3° for Ø 32)									
Valve fixing interface			According to ISO 5211 and DIN 3337									
Female bottom key			Double square type (star)									
Power interface			According to NAMUR VDI\VDE-3845									
Interface for fixing accessories at the top			According to NAMUR VDI\VDE-3845									
Category ATEX			Ⓔx II 2G Ex h IIC T5 Gb									
			Ⓔx II 2D Ex h IIIC T95°C Db									
Assembly position			Any. Upward power takeoff not recommended									
Versions			Single-acting / Double-acting									
Nominal torque at 6 bar		Nm	7.6	13.0	18.5	33.0	70.2	106.9	166.4	274.5	361.1	520.2
Maximum idle rotation	double acting	s	0.5	0.5	0.6	0.7	0.7	0.9	0.9	1.1	1.1	1.1
	single acting	s	-	0.5	0.6	0.9	1	1.3	1.3	1.6	2.1	2.1
Internal volume	double acting	liters	0.07	0.18	0.23	0.45	0.61	0.98	1.8	2.8	3.7	4.9
	single acting	liters	-	0.072	0.092	0.18	0.244	0.392	0.72	1.12	1.48	1.96

COMPONENTS

① BODY: extruded aluminium with hard anodisation
② END CAP: pressure die-cast aluminium with polyester powdercoating
③ PISTON: anodized pressure die-cast aluminium
④ SHAFT WITH PINION: nickel-plated carbon steel
⑤ GASKETS: NBR
⑥ SLIDING GUIDES: acetal resin
⑦ SCREWS AND WASHERS: stainless steel
⑧ SEEGER: zinc-plated carbon steel
⑨ SPRINGS (for single-acting versions only): carbon steel with polyester powder coating



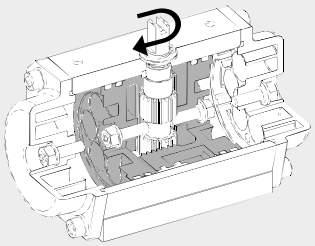
DIMENSIONING

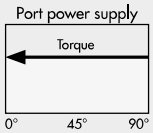
CHOOSING THE ACTUATOR

Actuators are chosen by ensuring that the available torque is greater than the torque required by the application, taking into account a safety margin. When used for actuating valves, which is a typical case for this series of actuators, the interface flange and the power takeoff dimension (seat for connection with the valve shaft) must also be verified.
When using ball valves, you need to know the operating torque according to which a minimum safety factor must be considered to ensure correct operation over time, even in the worst operating conditions. As a general rule, the safety factor must be at least 25% but in some applications and, for some valve manufacturers, it is recommended to be up until 50%.

- **DOUBLE-ACTING VERSION**
  During rotation, the double-acting actuator provides constant torque at each position and in both directions with the same supply pressure.

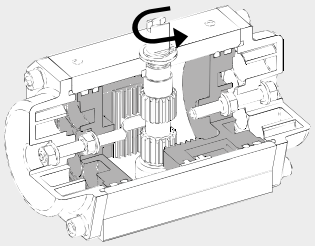
Powered B4: closing (0°)

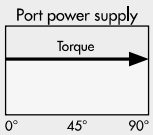




Example	
Valve operating torque	50 Nm
Safety factor required	25% (12.5 Nm)
Minimum actuator torque required	50 Nm + 12.5 Nm = 62.5 Nm
Actuator supply pressure	6 bar
Chosen bore	75
Based on the supplied torque at 6 bar (see table "pair of double-acting actuator")	70.2 Nm (> 62.5 Nm)
Actual safety factor	(70.2 Nm - 50 Nm) / 50 Nm = 40%

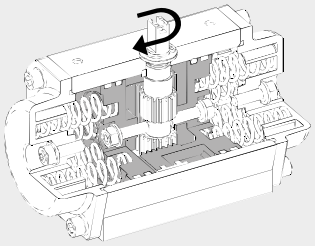
Powered A2: opening (90°)

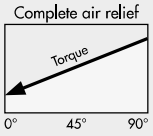




- **SINGLE-ACTING VERSION**
  During rotation, the single-acting actuator provides variable torque depending on the angle.
  On opening, the maximum torque value is at 0° and then decreases as the compressed springs counteract the movement of the pistons and accumulate energy that is made available when rotation is reversed.
  On closing, the maximum torque value is at 90° and then decreases due to the release of the springs.

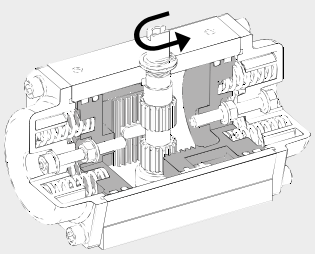
NOT powered: closing (0°)

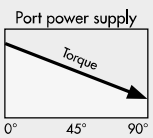




Example	
Valve operating torque	50 Nm
Safety factor required	30% (15 Nm)
Minimum actuator torque required	50 Nm + 15 Nm = 65 Nm
Actuator supply pressure	6 bar
Chosen bore	115
Based on the supplied torque at 6 bar (see table "pair of double-acting actuator")	106 Nm a 0° (> 65 Nm)
Actual safety factor	(106 Nm - 50 Nm) / 50 Nm = 112%

Powered A2: opening (90°)





METAL WORK PNEUMATIC

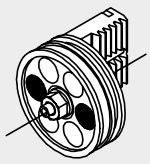
TORQUE OF DOUBLE-ACTING ACTUATORS [Nm]

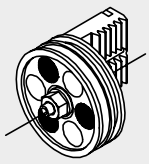
Ø	Supply pressure [bar]							
	1	2	3	4	5	6	7	8
32	-	-	-	5	6.3	7.6	8.8	10
42	-	-	6.5	8.7	10.9	13	15.2	17.3
50	3	6.1	9.2	12.3	15.4	18.5	21.5	24.6
63	5.5	11	16.5	22	27.5	33	38.5	44
75	11.7	23.4	35.1	46.8	58.5	70.2	81.9	93.6
85	17.8	35.6	53.4	71.2	89	106.9	124.7	142.4
100	27.7	55.4	83.2	110.9	138.6	166.4	194.1	221.8
115	45.7	91.5	137.2	183	228.7	274.5	320.2	366
125	60.1	120.3	180.5	240.7	300.9	361.1	421.2	481.4
145	86.7	173.4	260.1	346.8	433.5	520.2	606.9	693.6

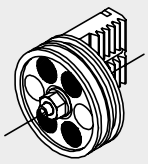
TORQUE OF SINGLE-ACTING ACTUATORS [Nm]

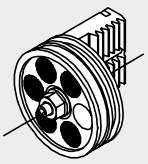
Ø	Springs per side	Supply pressure [bar]												Non-powered spring torque	
		3		4		5		6		7		8			
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
42	3	-	-	-	-	7.1	4.1	9.3	6.3	11.5	8.5	13.7	10.7	6.8	3.8
	4	**-**	**-**	**-**	**-**	**-**	**-**	**8.1**	**4.1**	**10.2**	**6.2**	**12.4**	**8.4**	**9**	**5**
50	3	5.7	3.5	8.9	6.6	12	9.6	15.1	12.7	18.1	15.7	21.2	18.8	5.7	3.5
	4	-	-	7.7	4.7	10.8	7.7	13.9	10.8	16.9	13.8	20.2	16.9	7.7	4.7
	5	-	-	-	-	9.6	5.8	12.7	8.9	15.7	11.9	18.8	15	9.6	5.8
	6	**-**	**-**	**-**	**-**	**8.4**	**3.9**	**11.5**	**7**	**14.5**	**10**	**17.6**	**13.1**	**11.5**	**7**
63	3	9.4	6.3	14.9	11.7	20.4	17.2	25.9	22.7	31.4	28.2	36.9	33.7	10.2	7.2
	4	-	-	12.3	8.3	17.8	13.8	23.3	19.3	28.8	24.8	34.3	30.3	13.7	9.7
	5	-	-	-	-	15.4	10.4	20.9	15.9	26.4	21.4	31.9	26.9	17.1	12.1
	6	**-**	**-**	**-**	**-**	**13**	**7**	**18.5**	**12.5**	**24**	**18**	**29.5**	**23.5**	**20.5**	**14.5**
75	3	22.5	12.6	34.2	24.4	46	36.1	57.7	47.8	69.4	59.5	81.1	71.2	22.5	12.6
	4	-	-	30	16.9	41.8	28.6	53.5	40.3	65.2	52	76.9	63.7	30	16.9
	5	-	-	-	-	37.6	21.1	49.3	32.8	61	44.5	72.7	56.2	37.6	21.1
	6	**-**	**-**	**-**	**-**	**33.4**	**13.6**	**45.1**	**25.3**	**56.8**	**37**	**68.5**	**48.7**	**45.1**	**25.3**
85	3	34.5	18.9	52.4	36.7	70.2	54.5	88	72.3	105.8	90.1	123.6	107.9	34.5	18.9
	4	-	-	46.1	25.2	63.9	43	81.7	60.8	99.5	78.6	117.3	96.4	46.1	25.2
	5	-	-	-	-	57.6	31.5	75.4	49.3	93.2	67.1	111	84.9	57.6	31.5
	6	**-**	**-**	**-**	**-**	**51.5**	**20**	**69.1**	**37.8**	**86.9**	**55.6**	**104.7**	**73.4**	**69.1**	**37.8**
100	3	53.2	30	80.9	57.7	108.7	85.4	136.4	113.1	164.1	140.8	191.8	168.5	53.2	30
	4	-	-	70.9	40	98.7	67.7	126.4	95.4	154.1	123.1	181.8	150.8	70.9	40
	5	-	-	-	-	88.7	50	116.4	77.7	144.1	105.4	171.8	133.1	88.7	50
	6	**-**	**-**	**-**	**-**	**78.7**	**32.2**	**106.4**	**60**	**134.1**	**87.7**	**161.8**	**115.4**	**106.4**	**60**
115	3	84.3	53	130	98.8	175.8	144.5	221.6	190.3	267.3	236	313	281.7	84.3	53
	4	-	-	112.3	70.7	158.1	116.4	203.9	162.2	249.6	207.9	295.3	253.6	112.3	70.7
	5	-	-	-	-	140.4	88.3	186.2	134.1	231.9	179.8	277.6	225.5	140.4	88.3
	6	**-**	**-**	**-**	**-**	**122.7**	**60.2**	**168.5**	**106**	**214.2**	**151.7**	**259.9**	**197.4**	**168.5**	**106**
125	3	116.8	63.7	177	123.9	237.3	184.1	297.5	244.2	357.6	304.3	417.7	364.4	116.8	63.7
	4	-	-	155.7	85	216	145.2	276.2	205.3	336.3	265.4	396.4	325.5	155.7	85
	5	-	-	-	-	194.7	106.3	254.9	166.4	315	226.5	375.1	286.6	194.7	106.3
	6	**-**	**-**	**-**	**-**	**173.4**	**67.4**	**233.6**	**127.5**	**293.7**	**187.6**	**353.8**	**247.7**	**233.6**	**127.5**
145	3	158	92	245	179	332	265	418	352	505	439	592	526	168	102
	4	-	-	211	123	298	210	384	269	471	383	558	470	224	136
	5	-	-	-	-	264	154	350	240	437	327	524	414	280	170
	6	**-**	**-**	**-**	**-**	**230**	**98**	**316**	**184**	**403**	**271**	**490**	**358**	**336**	**204**

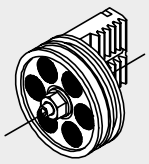
N.B.: All single-acting actuators come with the maximum quantity of springs that can be fitted to each side, which means that the user can dispense lower torques as required by simply removing unnecessary springs. If the quantity of springs is reduced, carefully check that the residual springs are positioned correctly.


2 springs

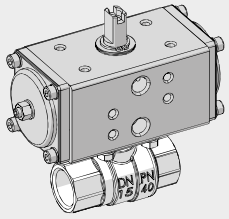

3 springs

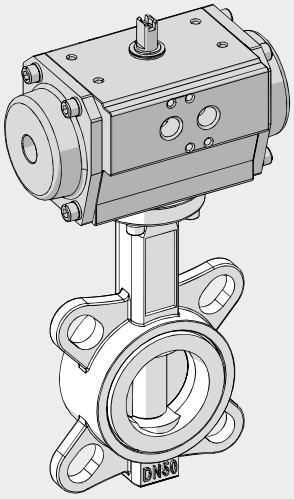

4 springs

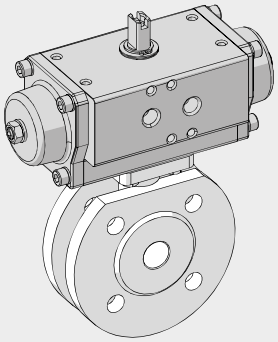

5 springs


6 springs

EXAMPLES OF APPLICATION





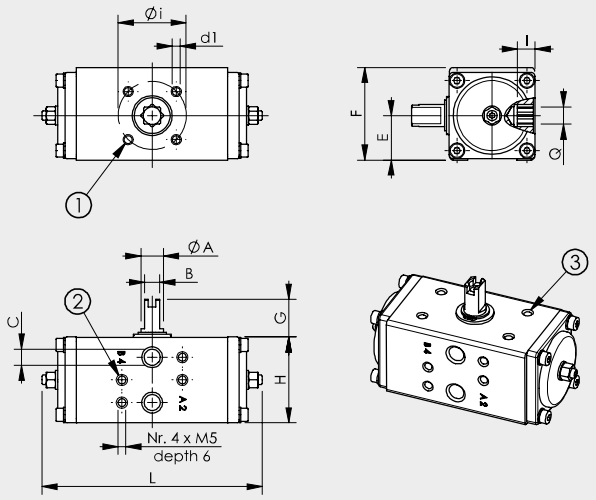


NOTES

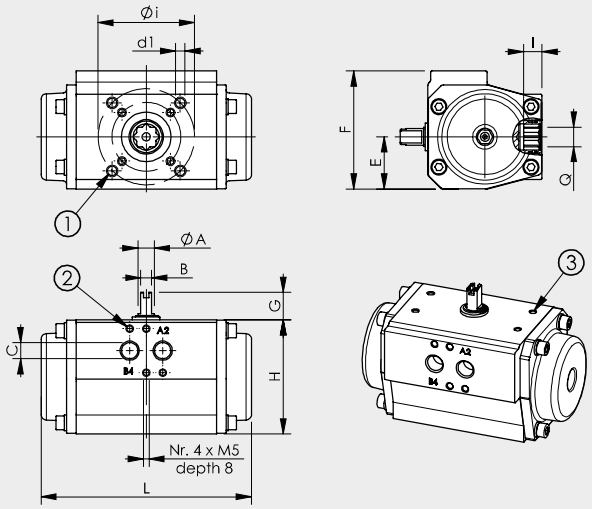
DIMENSIONS AND ORDERING CODES

DIMENSIONS Ø 32 - 42 - 50 - 63

Ø 32



Ø 42 - 50 - 63



① Flange connection according to UNI 5211 and DIN 3337
② Supply interface according to NAMUR VDI/VDE-3845
③ Holes for fixing accessories according to NAMUR VDI/VDE-3845

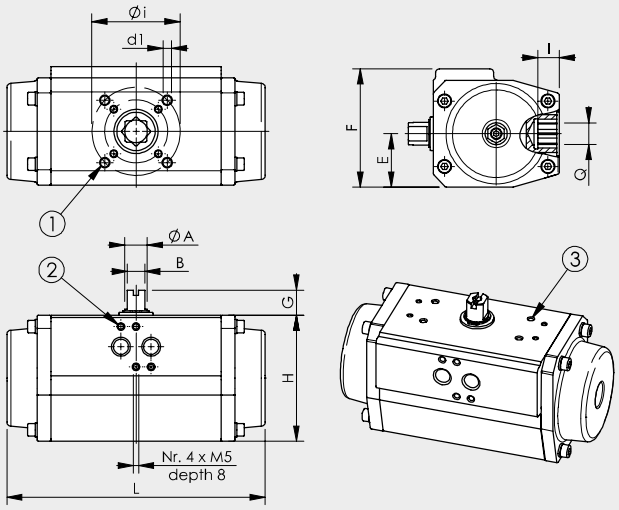

Single-acting


Double-acting

FLANGE ISO 5211	Ø i	d1
F03	36	M5 depth 8
F04	42	M5 depth 8
F05	50	M6 depth 9
F07	70	M8 depth 12
F10	102	M10 depth 15
F12	125	M12 depth 18

Ø	Type	Code	Flange ISO 5211	Q	I	ØA	B	C	G	E	F	H	L	Weight [g]
32	Double-acting	W790A032GQ009DA	F03	9	10	12	8	1/8"	20	23.5	49	45	117	420
		W790B032GQ009DA	F04	9	10	12	8	1/8"	20	23.5	49	45	117	420
42	Double-acting	W79AC042GQ009DA	F03 / F05	9	10	12	8	1/8"	20	27	60.5	57	160	870
		W79AC042GQ011DA	F03 / F05	11	13	12	8	1/8"	20	27	60.5	57	160	870
		W790B042GQ009DA	F04	9	10	12	8	1/8"	20	27	60.5	57	160	870
		W790B042GQ011DA	F04	11	13	12	8	1/8"	20	27	60.5	57	160	870
	Single-acting	W79AC042GQ009SR	F03 / F05	9	10	12	8	1/8"	20	27	60.5	57	160	930
		W79AC042GQ011SR	F03 / F05	11	13	12	8	1/8"	20	27	60.5	57	160	930
		W790B042GQ009SR	F04	9	10	12	8	1/8"	20	27	60.5	57	160	930
		W790B042GQ011SR	F04	11	13	12	8	1/8"	20	27	60.5	57	160	930
50	Double-acting	W79AC050GQ009DA	F03 / F05	9	10	12	8	1/8"	20	33.5	75	67	139	1070
		W79AC050GQ011DA	F03 / F05	11	13	12	8	1/8"	20	33.5	75	67	139	1070
		W790B050GQ009DA	F04	9	10	12	8	1/8"	20	33.5	75	67	139	1070
		W790B050GQ011DA	F04	11	13	12	8	1/8"	20	33.5	75	67	139	1070
	Single-acting	W79AC050GQ009SR	F03 / F05	9	10	12	8	1/8"	20	33.5	75	67	139	1200
		W79AC050GQ011SR	F03 / F05	11	13	12	8	1/8"	20	33.5	75	67	139	1200
		W790B050GQ009SR	F04	9	10	12	8	1/8"	20	33.5	75	67	139	1200
		W790B050GQ011SR	F04	11	13	12	8	1/8"	20	33.5	75	67	139	1200
63	Double-acting	W79AD063GQ009DA	F03 / F05 / F07	9	10	12	8	1/4"	20	38	86	83	152	1600
		W79AD063GQ011DA	F03 / F05 / F07	11	13	12	8	1/4"	20	38	86	83	152	1600
		W79AD063GQ014DA	F03 / F05 / F07	14	16	12	8	1/4"	20	38	86	83	152	1600
		W790B063GQ009DA	F04	9	10	12	8	1/4"	20	38	86	83	152	1600
		W790B063GQ011DA	F04	11	13	12	8	1/4"	20	38	86	83	152	1600
		W790B063GQ014DA	F04	14	16	12	8	1/4"	20	38	86	83	152	1600
	Single-acting	W79AD063GQ009SR	F03 / F05 / F07	9	10	12	8	1/4"	20	38	86	83	152	1800
		W79AD063GQ011SR	F03 / F05 / F07	11	13	12	8	1/4"	20	38	86	83	152	1800
		W79AD063GQ014SR	F03 / F05 / F07	14	16	12	8	1/4"	20	38	86	83	152	1800
		W790B063GQ009SR	F04	9	10	12	8	1/4"	20	38	86	83	152	1800
		W790B063GQ011SR	F04	11	13	12	8	1/4"	20	38	86	83	152	1800
		W790B063GQ014SR	F04	14	16	12	8	1/4"	20	38	86	83	152	1800

DIMENSIONS Ø 75 - 85 - 100 - 115 - 125 - 145



① Flange connection according to UNI 5211 and DIN 3337
② Supply interface according to NAMUR VDI/VDE-3845
③ Holes for fixing accessories according to NAMUR VDI/VDE-3845

FLANGE ISO 5211	Ø i	d1
F04	42	M5 depth 8
F05	50	M6 depth 9
F07	70	M8 depth 12
F10	102	M10 depth 15
F12	125	M12 depth 18

Ø	Type	Code	Flange ISO 5211	Q	I	ØA	B	C	G	E	F	H	L	Weight [g]
75	Double-acting	**W790D075GQ011DA**	F05 / F07	11	13	18	14	1/4"	20	42.5	94	100	205	2800
		W790D075GQ014DA	F05 / F07	14	16	18	14	1/4"	20	42.5	94	100	205	2800
		W790D075GQ017DA	F05 / F07	17	20	18	14	1/4"	20	42.5	94	100	205	2800
		W790B075GQ011DA	F04	11	13	18	14	1/4"	20	42.5	94	100	205	2800
		W790B075GQ014DA	F04	14	16	18	14	1/4"	20	42.5	94	100	205	2800
		W790B075GQ017DA	F04	17	20	18	14	1/4"	20	42.5	94	100	205	2800
	Single-acting	**W790D075GQ011SR**	F05 / F07	11	13	18	14	1/4"	20	42.5	94	100	205	3370
		W790D075GQ014SR	F05 / F07	14	16	18	14	1/4"	20	42.5	94	100	205	3370
		W790D075GQ017SR	F05 / F07	17	20	18	14	1/4"	20	42.5	94	100	205	3370
		W790B075GQ011SR	F04	11	13	18	14	1/4"	20	42.5	94	100	205	3370
		W790B075GQ014SR	F04	14	16	18	14	1/4"	20	42.5	94	100	205	3370
		W790B075GQ017SR	F04	17	20	18	14	1/4"	20	42.5	94	100	205	3370
85	Double-acting	**W790D085GQ014DA**	F05 / F07	14	16	18	14	1/4"	20	49	104	110	230	4200
		W790D085GQ017DA	F05 / F07	17	20	18	14	1/4"	20	49	104	110	230	4200
	Single-acting	**W790D085GQ014SR**	F05 / F07	14	16	18	14	1/4"	20	49	104	110	230	4830
		W790D085GQ017SR	F05 / F07	17	20	18	14	1/4"	20	49	104	110	230	4830
100	Double-acting	**W79DE100GQ014DA**	F05 / F07 / F10	14	16	18	14	1/4"	20	55	120	125	275	5800
		W79DE100GQ017DA	F05 / F07 / F10	17	20	18	14	1/4"	20	55	120	125	275	5800
		W79DE100GQ022DA	F05 / F07 / F10	22	25	18	14	1/4"	20	55	120	125	275	5800
	Single-acting	**W79DE100GQ014SR**	F05 / F07 / F10	14	16	18	14	1/4"	20	55	120	125	275	6820
		W79DE100GQ017SR	F05 / F07 / F10	17	20	18	14	1/4"	20	55	120	125	275	6820
		W79DE100GQ022SR	F05 / F07 / F10	22	25	18	14	1/4"	20	55	120	125	275	6820
115	Double-acting	**W790E115GQ017DA**	F07 / F10	17	20	36	27	1/4"	30	63.5	134	142	309	9200
		W790E115GQ022DA	F07 / F10	22	25	36	27	1/4"	30	63.5	134	142	309	9200
	Single-acting	**W790E115GQ017SR**	F07 / F10	17	20	36	27	1/4"	30	63.5	134	142	309	10300
		W790E115GQ022SR	F07 / F10	22	25	36	27	1/4"	30	63.5	134	142	309	10300
125	Double-acting	**W790E125GQ017DA**	F07 / F10	17	20	36	27	1/4"	30	69.5	141	155	362	11900
		W790E125GQ022DA	F07 / F10	22	25	36	27	1/4"	30	69.5	141	155	362	11900
	Single-acting	**W790E125GQ017SR**	F07 / F10	17	20	36	27	1/4"	30	69.5	141	155	362	14200
		W790E125GQ022SR	F07 / F10	22	25	36	27	1/4"	30	69.5	141	155	362	14200
145	Double-acting	**W790F145GQ022DA**	F10 / F12	22	25	36	27	1/4"	30	80	163	175	392	15500
	Single-acting	**W790F145GQ022SR**	F10 / F12	22	25	36	27	1/4"	30	80	163	175	392	19000

KEY TO CODES

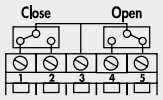
W79	0A	032	G	Q0	09	DA
	FLANGE	DIAMETER	CONNECTIONS	TYPE OF POWER TAKEOFF	POWER TAKEOFF DIMENSIONS	TYPE
Rotary actuator series R4	**0A** F03 **0B** F04 **0D** F05 - F07 **0E** F07 - F10 **0F** F10 - F12 **AC** F03 - F05 **AD** F03 - F05 - F07 **DE** F05 - F07 - F10	**032** Ø 32 **042** Ø 42 **050** Ø 50 **063** Ø 63 **075** Ø 75 **085** Ø 85 **100** Ø 100 **115** Ø 115 **125** Ø 125 **145** Ø 145	**G** Supply port threading G (BSP)	**Q0** Star type (double square 45° offset)	**09** 9 mm **11** 11 mm **14** 14 mm **17** 17 mm **22** 22 mm	**DA** Double-acting **SR** Single-acting

N.B.: The orderable configurations are shown on the previous pages.

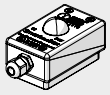
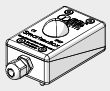
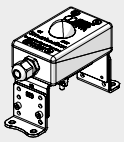
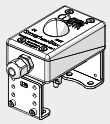
NOTES

ACCESSORIES PARTS FOR ACTUATED VALVES SERIES RV-FLUID

SWITCH BOX WITH ELECTROMECHANICAL MICROSWITCHES FOR ACTUATOR



Voltage: max 125/250 VAC
Current: min 30 mA
max 2.5 A
Temperature: -25°C to +125°C
Charge: IP67

	Code	Description	Weight [g]
	W0900300915	Switch box with electromechanical microswitches for actuator bore 32	196
	W0900300916	Switch box with electromechanical microswitches for actuator bore 42 - 63	152
	W0900300917	Switch box with electromechanical microswitches for actuator bore 115 - 145	384
	W0900300919	Switch box with electromechanical microswitches for actuator bore 75 - 100	384

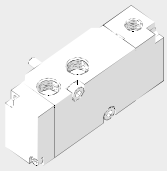
Note: switch boxes with inductive sensors and Atex certification are available on request.

POSITION INDICATOR FOR ACTUATOR

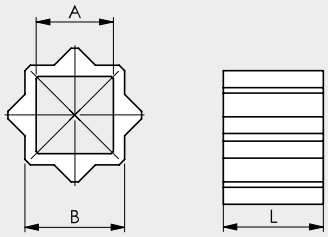
	Code	Description	Weight [g]
	W0900300930	Position indicator for actuator bore 32 - 63	16
	W0900300931	Position indicator for actuator bore 75 - 100	22
	W0900300933	Position indicator for actuator bore 32 - 100 (only without switch box)	52
	W0900300932	Position indicator for actuator bore 115 - 145	26

CONTROL VALVES WITH NAMUR INTERFACE

Refer to page **B1**.53



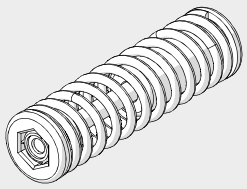
KIT SQUARED ADAPTOR



Code	Description	A	B	L	Weight [g]
W0900301001	Kit squared adaptor RV-FLUID 08/11	8	11	12	7
W0900301002	Kit squared adaptor RV-FLUID 09/11	9	11	12	6
W0900301006	Kit squared adaptor RV-FLUID 09/13	9	13	12	11
W0900301007	Kit squared adaptor RV-FLUID 11/13	11	13	12	7
W0900301008	Kit squared adaptor RV-FLUID 11/14	11	14	16	13
W0900301003	Kit squared adaptor RV-FLUID 14/17	14	17	17	19
W0900301005	Kit squared adaptor RV-FLUID 14/22	14	22	22	65
W0900301009	Kit squared adaptor RV-FLUID 16/22	16	22	22	52
W0900301004	Kit squared adaptor RV-FLUID 17/22	17	22	22	48

Note: adapters according to ISO 5211 - DIN 3337 in AISI 316 stainless steel

SPRINGS KIT FOR SINGLE-ACTING VERSION

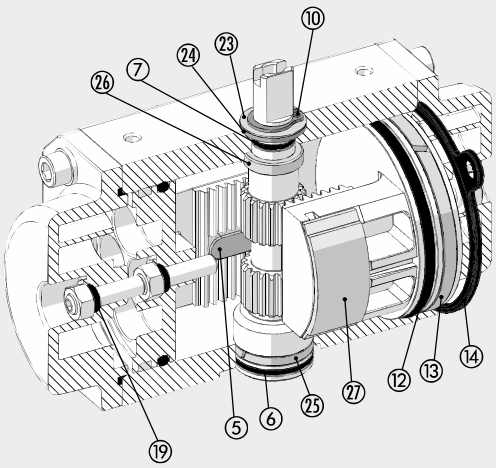


Code	Ø	Quantity per kit
W0900303002	42	8
W0900303003	50	12
W0900303004	63	12
W0900303005	75	12
W0900303006	85	12
W0900303007	100	12
W0900303008	115	12
W0900303009	125	12
W0900303010	145	12

Note: the springs are supplied pre-compressed with a special support to facilitate installation. **Do not remove the spring from its support for any reason whatsoever.**

SPARES PARTS FOR ACTUATED VALVES SERIES RV-FLUID

GASKETS KIT AND SLIDING ELEMENTS



Code	Ø	Parts
W0900302001	32	6-7-10-12-13-14-19-23-24-25-26-27
W0900302002	42	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302003	50	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302004	63	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302005	75	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302006	85	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302007	100	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302008	115	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302009	125	5-6-7-10-12-13-14-19-23-24-25-26-27
W0900302010	145	5-6-7-10-12-13-14-19-23-24-25-26-27