

2/2- and 3/2 way Ball Valve with pneumatic rotary actuator, plastic body, DN10-50



Type 2658 can be combined with...



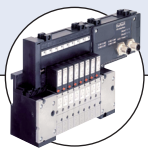
Type 6012/6014 P

Pilot valve



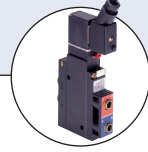
Type 8691

Control head



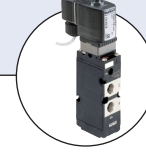
Type 8640/8644

Valve block



Type 5470

Solenoid valve



Type 6519 NAMUR

Solenoid valve

The complete unit of the Type 2658 consists of a pneumatic rotary actuator and a ball valve body from plastic. The connection between the ball valve and the actuator is made via a standard interface (flange connection). The rotary movement in the actuator is produced by a linear piston with angled thread coupling. The rotary actuator moves the ball valve through 90° and thereby opens or closes the port cross-section. The compact pneumatically-operated ball valve can be used for a wide range of applications and media. The pneumatic rotary actuator can also be used for other purposes.

Special feature

The ball valves are equipped with the so-called Dual Block® Technology. This system serves as a safety device for the union nuts. It prevents these separating during operation.

Technical data	
Orifice	DN10-50
Body material	PVC-U (PP, PVDF, PVC-C on request)
Actuator material	PA (Polyamide, glass-fibre reinforced)
Pilot air ports material	Stainless steel
Seal material	
O-rings	EPDM, FKM
Ball sealing	PTFE
Media	Gaseous and liquid media which do not attack the body and the seal materials
Media temperature	(see chart p. 2)
PVC body	0 to +60 °C
PP body	+10 to +80 °C
PVDF body	0 to +120 °C
Ambient temperature	-10 to +60 °C
Port connections	
PVC-U	True union
PP, (PVDF on request)	Fusion spigot
Control medium	Neutral gases, air
Pilot pressure	
single-acting actuator	5 - 10 bar (Ø 63 mm) 5 - 6 bar (Ø 100 mm)
double-acting actuator	2 - 10 bar (Ø 63 mm) 2 - 6 bar (Ø 100 mm)
Rotation	90° ± 3°
Rotation time for 90°	1 to 3.5 sec.(depending on load and control pressure)
Connection	Flange acc. to ISO 5211 and DIN 3337
Installation	As required, preferably with actuator upright

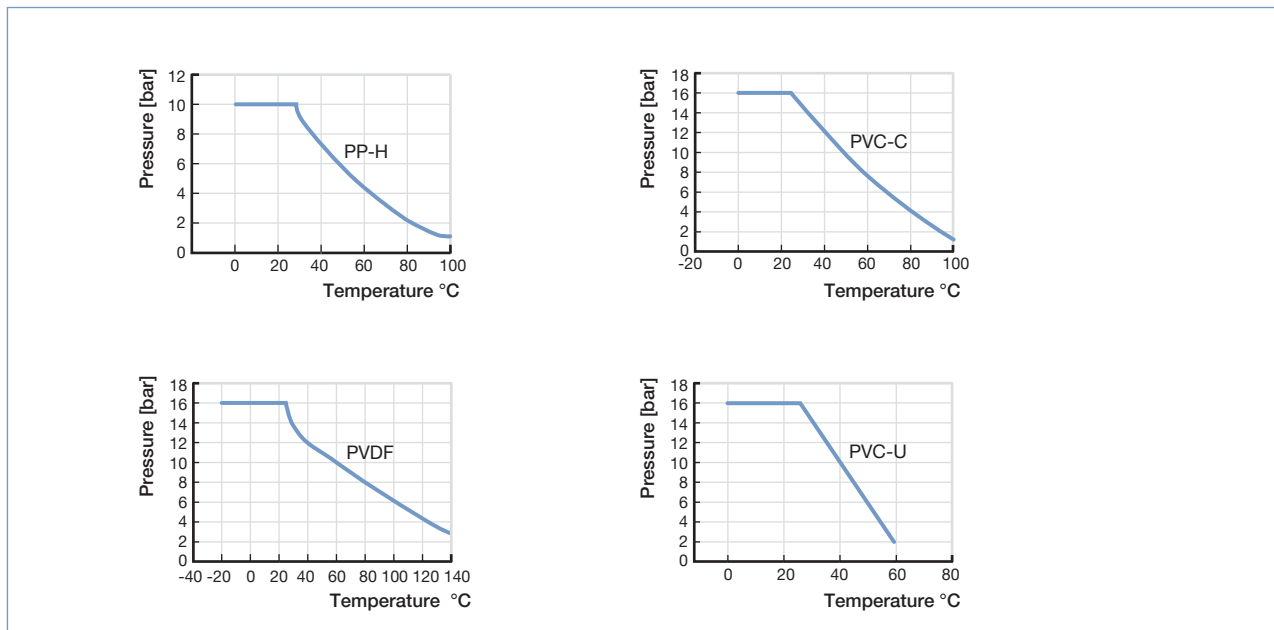
¹⁾ Dual Block® Technology is a registered trademark of FIP - Formatura Iniezione Polimeri S.p.A

Technical data, continued

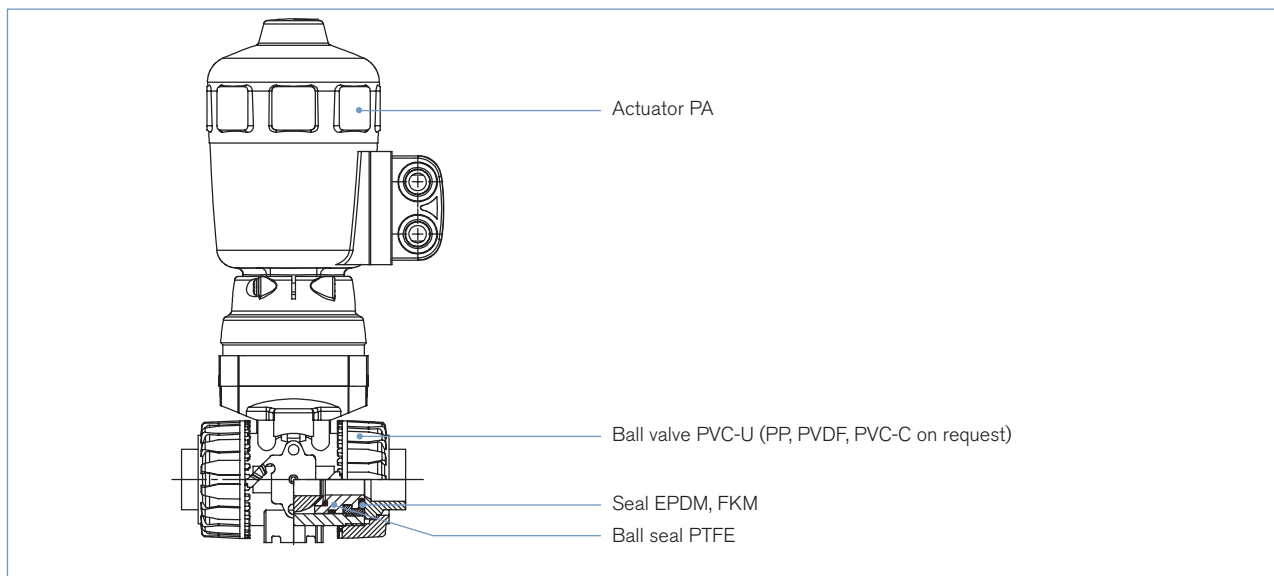
K_{VS} values 2/2 way ball valves

Orifice [mm]	Port connection Ø [mm]	K _v value water [m ³ /h]	Pressure range [bar]		Actuator size Ø [mm]	
			PVC, PVDF	PP	double-acting	single-acting
10	16	4.8	0-16	0-10	63	63
15	20	12	0-16	0-10	63	63
20	25	23	0-16	0-10	63	63
25	32	46	0-16	0-10	63	100
32	40	66	0-16	0-10	63	100
40	50	105	0-16	0-10	63	100
50	63	204	0-10	0-10	63	100

Pressure temperature chart

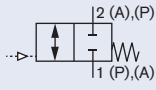
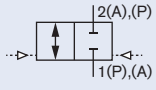


Material

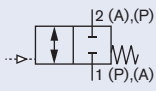
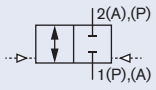


Ordering chart for 2/2 way ball valves (other versions on request)

PVC body 2/2 way, true union connection

Control function	Orifice [mm]	Port connection [mm]	Actuator size Ø [mm]	K _v value water [m ³ /h]	Pressure range [bar]	Article no. Seal material EPDM	Article no. Seal material FKM
A  Pneumatically operated on / off valve, bidirectional, normally closed by spring force	10	16	63	4.8	0 - 16	178898	178987
	15	20	63	12	0 - 16	178944	178986
	20	25	63	23	0 - 16	178949	178985
	25	32	63	46	0 - 16	178955	178983
	32	40	100	66	0 - 16	178960	178982
	40	50	100	105	0 - 16	178964	178980
	50	63	100	204	0 - 10	178966	178979
I  Open/close operation on either side without spring, bidirectional	10	16	63	4.8	0 - 16	176491	176505
	15	20	63	12	0 - 16	176492	176506
	20	25	63	23	0 - 16	176493	176507
	25	32	63	46	0 - 16	176494	176508
	32	40	63	66	0 - 16	176495	176509
	40	50	63	105	0 - 16	176496	176510
	50	63	100	204	0 - 10	176497	176511

PP body 2/2 way, fusion spigot connection

Control function	Orifice [mm]	Port connection [mm]	Actuator size Ø [mm]	K _v value water [m ³ /h]	Pressure range [bar]	Article no. Seal material EPDM	Article no. Seal material FKM
A  Pneumatically operated on / off valve, bidirectional, normally closed by spring force	10	16	63	4.8	0 - 10	178969	178975
	15	20	63	12	0 - 10	178972	178974
	20	25	63	23	0 - 10	178973	178971
	25	32	63	46	0 - 10	178976	178962
	32	40	100	66	0 - 10	178977	178958
	40	50	100	105	0 - 10	178981	178952
	50	63	100	204	0 - 10	178984	178942
I  Open/close operation on either side without spring, bidirectional	10	16	63	4.8	0 - 10	176498	176512
	15	20	63	12	0 - 10	176499	176513
	20	25	63	23	0 - 10	176500	176514
	25	32	63	46	0 - 10	176501	176515
	32	40	63	66	0 - 10	176502	176516
	40	50	63	105	0 - 10	176503	176517
	50	63	100	204	0 - 10	176504	176518

Flow rate: K_v value water [m³/h]: Measured at +20 °C, 1 bar pressure at valve inlet and free outlet.

Pressure values [bar]: Overpressure to the atmospheric pressure

i Further versions on request



Material

PP, PVDF, PVC-C







Additional

Mounting sets for DIN resp. ISO flange on request





Spacer plates and threaded inserts for instrument panel attachment or wall assembly on request

Ordering chart for 3/2 way ball valves (other versions on request)

PVC body 3 way, true union connection, single-acting actuator, control function A

Switch position	Orifice [mm]	Port connection [mm]	Actuator size Ø [mm]	K _v value water [m ³ /h]	Pressure range [bar]	Article no. Seal material EPDM	Article no. Seal material FKM
T1  0°	10	16	63	1.5	0-16	209189	209194
	15	20	63	2.1	0-16	209190	209195
	20	25	63	5.7	0-16	209191	209197
	25	32	100	8.4	0-16	209192	209198
90° 	32	40	100	16.2	0-16	202648	209199
	40	50	100	19.8	0-16	209193	209200
L4  0°	10	16	63	2.8	0-16	209215	209221
	15	20	63	4.3	0-16	209216	209222
	20	25	63	9.0	0-16	209217	209223
	25	32	100	15.9	0-16	209218	209224
90° 	32	40	100	28.5	0-16	209219	209225
	40	50	100	37.2	0-16	209220	209226

PVC body 3 way, true union connection, double-acting actuator, control function I

Switch position	Orifice [mm]	Port connection [mm]	Actuator size Ø [mm]	K _v value water [m ³ /h]	Pressure range [bar]	Article no. Seal material EPDM	Article no. Seal material FKM
T1  0°	10	16	63	1.5	0-16	209201	209208
	15	20	63	2.1	0-16	209202	209209
	20	25	63	5.7	0-16	209203	209210
	25	32	63	8.4	0-16	209204	209211
90° 	32	40	63	16.2	0-16	209205	209212
	40	50	100	19.8	0-16	209206	209213
L4  0°	10	16	63	2.8	0-16	209227	209234
	15	20	63	4.3	0-16	209228	209235
	20	25	63	9.0	0-16	209229	209236
	25	32	63	15.9	0-16	209230	209237
90° 	32	40	63	28.5	0-16	209231	209238
	40	50	100	37.2	0-16	209232	209239

i Further versions on request


Material
PP, PVDF, PVC-C



Additional
Mounting sets for DIN resp. ISO flange on request

Spacer plates and threaded inserts for instrument panel attachment or wall assembly on request

Ordering chart for accessories

3/2 way piloted valves with banjo bolts

Seal material valve FKM, seal material banjo bolt NBR

Valve for actuator size [Ø mm]	Type	Pressure inlet P (valve body)	Service port A (banjo bolt)	Orifice [mm]	Q _{Nin} value air [l/min]	Pressure range [bar]	Electrical coil connection Ind. Std.	Power consumption [W]	Article no. Voltage/frequency [V/Hz]	
									024/DC	230/50
63	6012P	Tube fitting Ø6 mm	G 1/4	1.2	48	0-10	Form B	4	552283	552286
63-100	6014P	G 1/4	G 1/4	2	120	0-10	Form A	8	424103	424107

Pilot valve with NAMUR flange see Type 0450 NAMUR, 54070 NAMUR, 6517 NAMUR and 6519 NAMUR.

NAMUR adapter for pilot valves with NAMUR flange

Actuator size [Ø mm]	Material	Article no.
63	Plastic (PA)	427405
100	Brass	637114
	Stainless steel	634275

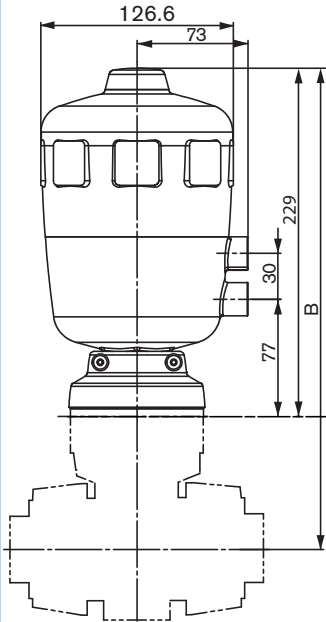
Cable plug for Type 2507, Form B or Type 2508, Form A

Plug configuration acc. to DIN EN 175301 - 803	Article no.
Form B, 0 to 250 V without circuitry (Type 6012 P)	423845
Form A, 0 to 250 V without circuitry (Type 6014 P, Type 0331P)	008376

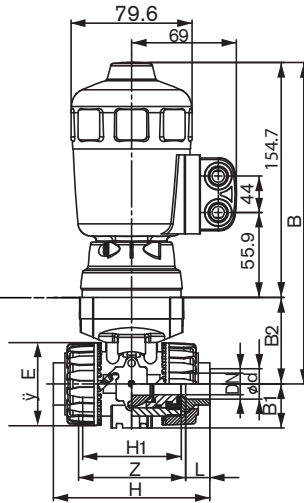
Dimensions [mm]

2/2 way

Actuator size 100



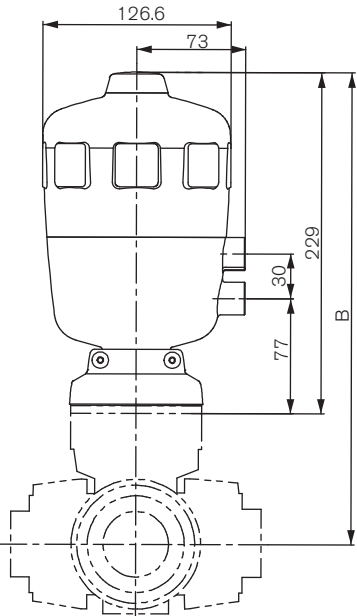
Actuator size 63



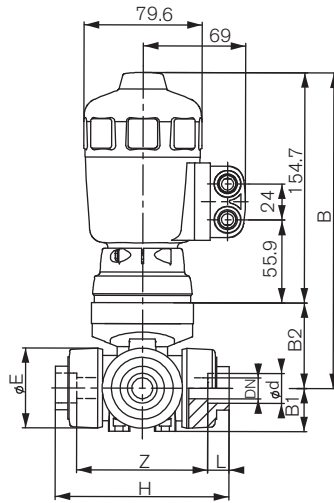
DN	Ød	Actuator size Ø [mm]	H	H1	Z	L	ØE	B1	B2	B								
10	16	63	103	65	75	14	54	29	58	213								
15	20			71	16													
20	25		115	70	77	19	65	34.5	69	224								
25	32		128	78	84	22	73	39	74	229								
32	40		146	88	94	26	86	46	91	246								
40	50		164	93	102	31	98	52	97	252								
50	63	199	111	123	38	122	62	114	269									
32	40	100	146	88	94	26	86	46	91	320								
40	50										164	93	102	31	98	52	97	326
50	63										199	111	123	38	122	62	114	343

3/2 way

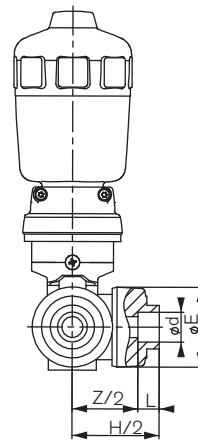
Actuator size 100



Actuator size 63



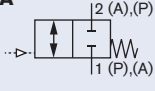



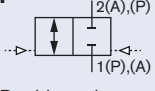




Actuator size 63, 100



DN	Ød	Actuator size Ø [mm]	H	Z	L	ØE	B1	B2	B							
10	10	63	118	90	14	54	29	58	213							
15	20			86	16											
20	25		145	107	19	65	34.5	69	224							
25	32		160	116	22	73	39	74	229							
32	40		188.5	136.5	26	86	46	91	246							
40	50		219	157	31	98	52	97	252							
50	63	266.5	190.5	38	122	62	114	269								
32	40	100	188.5	136.5	26	86	46	91	320							
40	50									219	157	31	98	52	97	326
50	63									266.5	190.5	38	122	62	114	343

Pneumatic Actuator Type 2050 (without regulating unit)

Ordering chart for Pneumatic Actuator, Type 2050

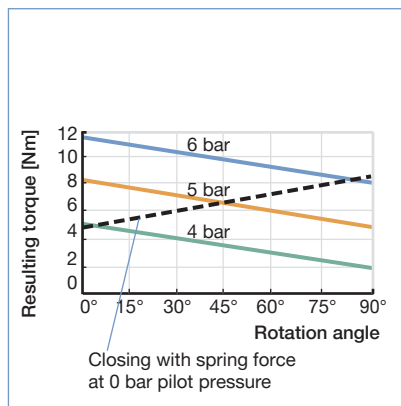
Control function	Actuator size Ø [mm]	Pressure range [bar]	Flange	Article no.
A  Single-acting	63	3.5 - 10	F04	142621 
	100	3.5 - 6	F05	142622 
			F07	140810 
I  Double-acting	63	2 - 10	F04	140805 
	100	2 - 6	F05	140806 
			F07	140807 
			F07	140808 

Torque at the actuator shaft [Nm]

Control function A

Actuator size Ø 63 mm

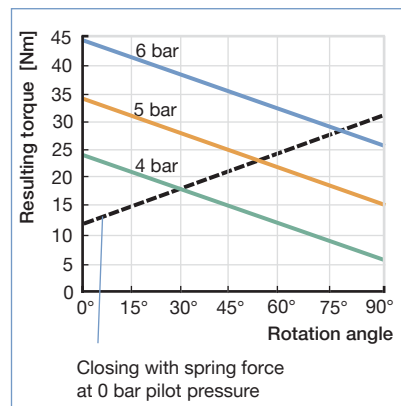
Opening with 4.5 or 6 bar pilot pressure against the spring force



Control function A

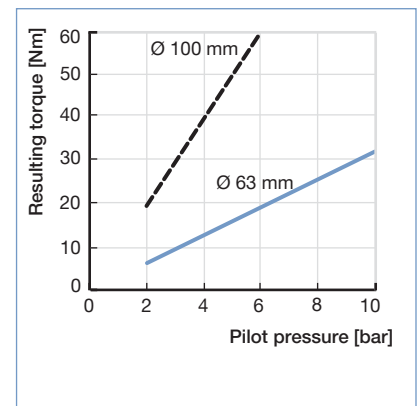
Actuator size Ø 100 mm

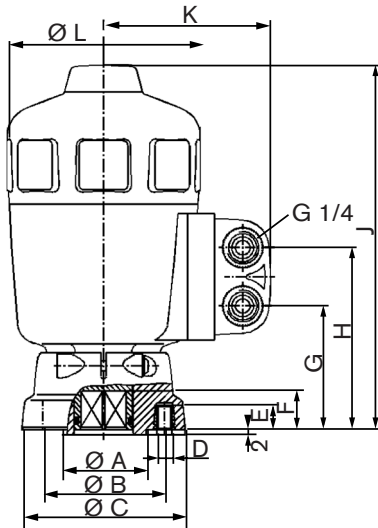
Opening with 4.5 or 6 bar pilot pressure against the spring force



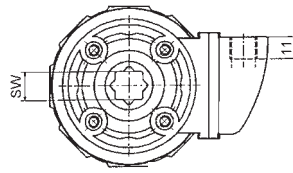
Control function I



Actuator size Ø 63 and 100 mm





Bottom view of actuator interface with universal flange



-  Square position acc. ISO 5211
-  Acc. DIN 3337

Actuator-Ø	flange	Ø A	Ø B	Ø C	D	E	F	G	H	J	K	Ø L	SW
63	F 04	30	42	67	M5	9	16	51	75	150	69	80	11
	F 05	35	50	67	M6	10	16	51	75	150	69	80	14
100	F 05	35	50	90	M6	10	21	72	102	224	73	127	14
	F 07	55	70	90	M8	12	21	72	102	224	73	127	17

DTS 1000021453 EN Version: L Status: RL (released | freigegeben | valide) printed: 17.09.2018

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1801/10_EU-en_00891927