

PRO Range

PVC-U BALL VALVES

USE

- swimming pool facilities
- chemical plants
- water treatment plants
- automation plants

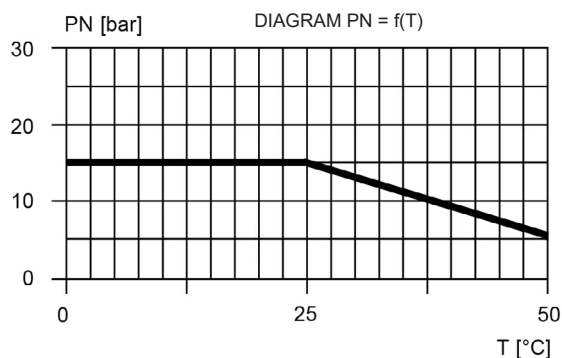
FUNCTIONS

The 2-way and 3-way ball valves, in combination with the appropriate **PRO Range** actuator, are used to intercept, divert and control fluids.

TECHNICAL FEATURES

BALL VALVES

PVCu FULL BORE



When the value of the flow is known, the general expression for the calculation of pressure losses is the following:

$$\Delta P [\text{bar}] = \left[\frac{Q [\text{m}^3/\text{h}]}{K_v} \right]^2$$

The expression provided applies to water or technically similar fluids.

FLUIDS Water and PVCu & EPDM-compatible fluids

TEMPERATURES

- Minimum 0°C
- Maximum +60°C

VERSIONS AND HYDRAULIC FEATURES



2-WAY VALVE PVCu



3-WAY VALVE PVCu

DN	Connections	PN	Δp max [bar]	K _v [m³/h]	To be combined with series
	threaded glued				
10	Rp 3/8"	16	16	4,8	DIAMANT PRO
15	Rp 1/2"	20	16	12	DIAMANT PRO
20	Rp 3/4"	25	16	23	DIAMANT PRO
25	Rp 1"	32	16	46	DIAMANT PRO
32	Rp 1 1/4"	40	16	66	DIAMANT PRO
40	Rp 1 1/2"	50	10 16	105	DIAMANT PRO COMPACT PRO
50	Rp 2"	63	10 16	204	COMPACT PRO UNIVERSAL PRO
65	Rp 2 1/2"	75	16	315	UNIVERSAL PRO
80	Rp 3"	90	10	426	UNIVERSAL PRO

DN	Connections	PN	Δp max [bar]	K _v * [m³/h]	To be combined with series
	threaded glued			"T" port "L" port	
10	Rp 3/8"	16	16	2,2 2,9	DIAMANT PRO
15	Rp 1/2"	20	16	3,3 4,4	DIAMANT PRO
20	Rp 3/4"	25	16	8,1 9	DIAMANT PRO
25	Rp 1"	32	16	12,3 15,9	DIAMANT PRO
32	Rp 1 1/4"	40	16	23,4 28,5	DIAMANT PRO
40	Rp 1 1/2"	50	10 16	28,5 37,2	DIAMANT PRO COMPACT PRO
50	Rp 2"	63	16	54 73,2	COMPACT PRO

* The K_vs value refers to the most hampered way.



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PRO Range

PVC-U BALL VALVES

CODES FOR DIAMANT PRO COMPARATO CONNECTION



2-WAY VALVE PVCu
with CONNECTION KIT

DN	Connections	PN	Kv _s [m³/h]	Code
THREADED connection				
10	Rp 3/8"	16	4,8	DC2R2C3D3
15	Rp 1/2"	16	12	DC2A2C3D3
20	Rp 3/4"	16	23	DC2B2C3D3
25	Rp 1"	16	46	DC2C2C3D3
32	Rp 1"1/4	16	66	DC2D2C3D3
40	Rp 1"1/2	16 *	105	DC2E2C3D3
GLUED connection				
10	16 (3/8")	16	4,8	DC2R2C4D3
15	20 (1/2")	16	12	DC2A2C4D3
20	25 (3/4")	16	23	DC2B2C4D3
25	32 (1")	16	46	DC2C2C4D3
32	40 (1"1/4)	16	66	DC2D2C4D3
40	50 (1"1/2)	16 *	105	DC2E2C4D3

* maximum differential pressure 10 bar



2-WAY VALVE PVCu
with CONNECTION KIT
and MANUAL OVERRIDE

DN	Connessioni	PN	Kv _s [m³/h]	Code
THREADED connection				
10	Rp 3/8"	16	4,8	DC2R2C3D4
15	Rp 1/2"	16	12	DC2A2C3D4
20	Rp 3/4"	16	23	DC2B2C3D4
25	Rp 1"	16	46	DC2C2C3D4
32	Rp 1"1/4	16	66	DC2D2C3D4
40	Rp 1"1/2	16 *	105	DC2E2C3D4
GLUED connection				
10	16 (3/8")	16	4,8	DC2R2C4D4
15	20 (1/2")	16	12	DC2A2C4D4
20	25 (3/4")	16	23	DC2B2C4D4
25	32 (1")	16	46	DC2C2C4D4
32	40 (1"1/4)	16	66	DC2D2C4D4
40	50 (1"1/2)	16 *	105	DC2E2C4D4

* maximum differential pressure 10 bar



3-WAY VALVE PVCu
with CONNECTION KIT

DN	Connections	PN	Kv _s [m³/h]	"T" PORT code	"L" PORT code
THREADED connection					
			sfera "T"	sfera "L"	
10	Rp 3/8"	16	2,2	2,9	DC3R6C3D3 DC3R5C3D3
15	Rp 1/2"	16	3,3	4,4	DC3A6C3D3 DC3A5C3D3
20	Rp 3/4"	16	8,1	9	DC3B6C3D3 DC3B5C3D3
25	Rp 1"	16	12,3	15,9	DC3C6C3D3 DC3C5C3D3
32	Rp 1"1/4	16	23,4	28,5	DC3D6C3D3 DC3D5C3D3
40	Rp 1"1/2	16 *	28,5	37,2	DC3E6C3D3 DC3E5C3D3
GLUED connection					
			sfera "T"	sfera "L"	
10	16 (3/8")	16	2,2	2,9	DC3R6C4D3 DC3R5C4D3
15	20 (1/2")	16	3,3	4,4	DC3A6C4D3 DC3A5C4D3
20	25 (3/4")	16	8,1	9	DC3B6C4D3 DC3B5C4D3
25	32 (1")	16	12,3	15,9	DC3C6C4D3 DC3C5C4D3
32	40 (1"1/4)	16	23,4	28,5	DC3D6C4D3 DC3D5C4D3
40	50 (1"1/2)	16 *	28,5	37,2	DC3E6C4D3 DC3E5C4D3

* maximum differential pressure 10 bar



3-WAY VALVE PVCu
with CONNECTION KIT
and MANUAL OVERRIDE

DN	Connessioni	PN	Kv _s [m³/h]	"T" PORT code	"L" PORT code
THREADED connection					
			sfera "T"	sfera "L"	
10	Rp 3/8"	16	2,2	2,9	DC3R6C3D4 DC3R5C3D4
15	Rp 1/2"	16	3,3	4,4	DC3A6C3D4 DC3A5C3D4
20	Rp 3/4"	16	8,1	9	DC3B6C3D4 DC3B5C3D4
25	Rp 1"	16	12,3	15,9	DC3C6C3D4 DC3C5C3D4
32	Rp 1"1/4	16	23,4	28,5	DC3D6C3D4 DC3D5C3D4
40	Rp 1"1/2	16 *	28,5	37,2	DC3E6C3D4 DC3E5C3D4
GLUED connection					
			sfera "T"	sfera "L"	
10	16 (3/8")	16	2,2	2,9	DC3R6C4D4 DC3R5C4D4
15	20 (1/2")	16	3,3	4,4	DC3A6C4D4 DC3A5C4D4
20	25 (3/4")	16	8,1	9	DC3B6C4D4 DC3B5C4D4
25	32 (1")	16	12,3	15,9	DC3C6C4D4 DC3C5C4D4
32	40 (1"1/4)	16	23,4	28,5	DC3D6C4D4 DC3D5C4D4
40	50 (1"1/2)	16 *	28,5	37,2	DC3E6C4D4 DC3E5C4D4

* maximum differential pressure 10 bar



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P20 Range

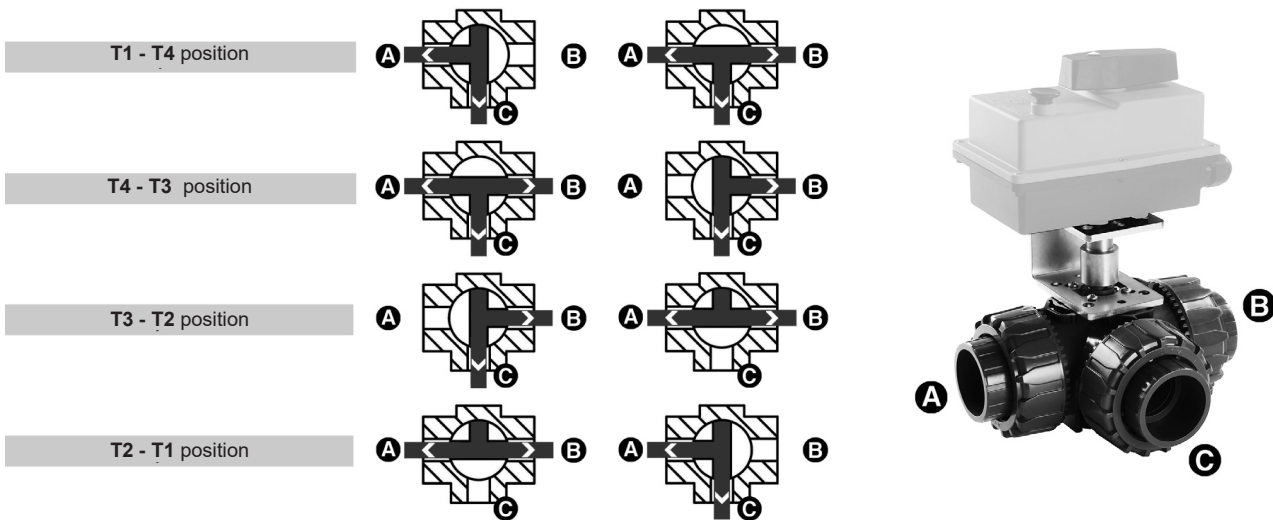
PVC-U BALL VALVES

3-WAY DIVERTER BALL VALVES

In **PVCu** valves, the horizontal 3-way version is available with a T-ball or L-ball. In both cases, they are used to allow a deviation. Both ball valves close one way and, at the same time, start opening of the other one: for a short period of time, during the operating phase, all three ways are in communication with each other. Despite the condition described above, however, it is not possible to carry out a mixing adjustment by means of this type of valve because of the limited dimensions of the sections created.

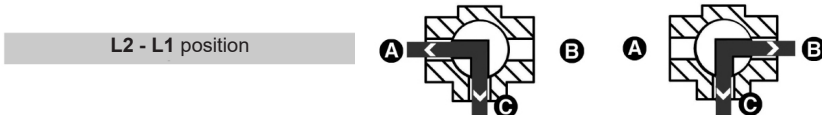
DIVERTER BALL VALVE • “T” BALL

The T-BALL diverter valve features a ball that can be used differently depending on the initial orientation. As can be seen in the opposite picture, different configurations can be obtained through a 90° rotation. The position of the holes is indicated by a T engraved on the ball valve stem.



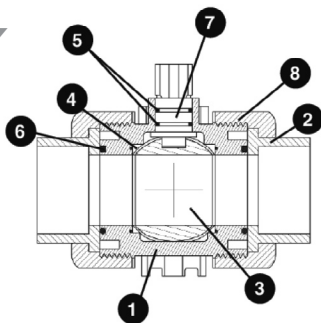
DIVERTER BALL VALVE • “L” BALL

The L-sphere diverter ball valve has a common central way C and two ways which are put into communication with it when they make a 90° rotation. The position of the holes is indicated by an L engraved on the ball valve stem.

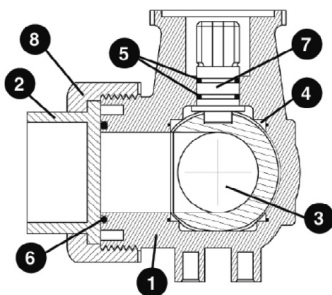


MATERIALS USED

2-WAY



3-WAY



PVCU BALL VALVE, 2-WAY and 3-WAY

1	BODY	PVCu
2	END CONNECTOR	PVCu
3	BALL	PVCu
4	BALL SEAT	P.T.F.E.
5	STEM SEAL	EPDM
6	SEALING GASKET	EPDM
7	STEM	PVCu (PVCu / STAINLESS STEEL - DN65 ÷ DN80)
8	NUT	PVCu



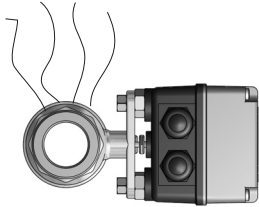
PRO Range

PVC-U BALL VALVES

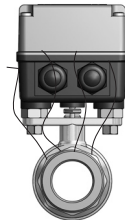
INSTALLATION

The valve shall not be installed with the actuator's connection facing downwards.

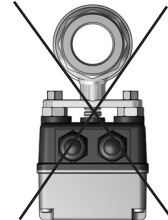
RECOMMENDED POSITION



ALLOWED POSITION

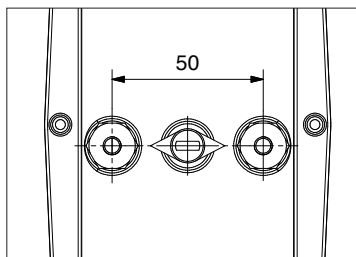


FORBIDDEN POSITION

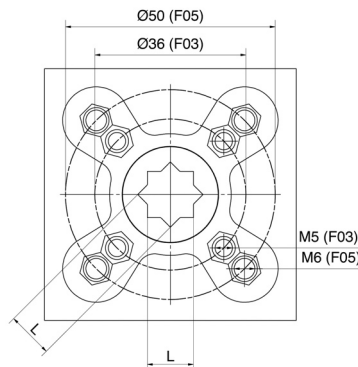


CAUTION! Do not use high-pressure water directly on the actuator (e.g. a pressure washer)

CONNECTION TO THE BALL VALVE

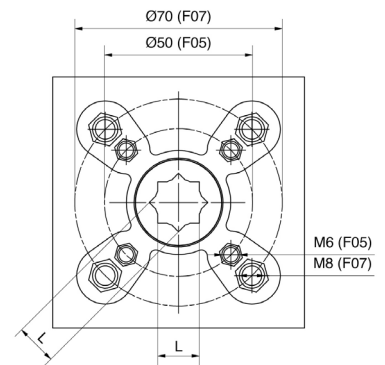


Diamant PRO
COMPARATO connection



Compact PRO

ISO connection	L
F03	9 mm
F05	11 mm



Universal PRO

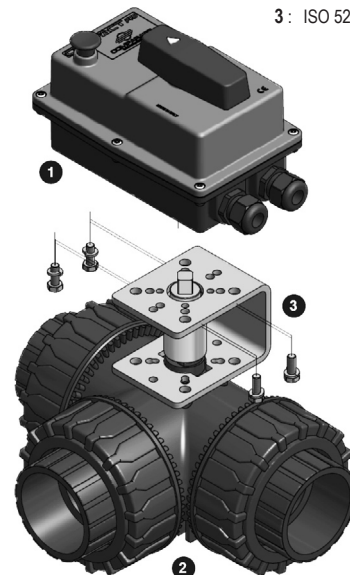
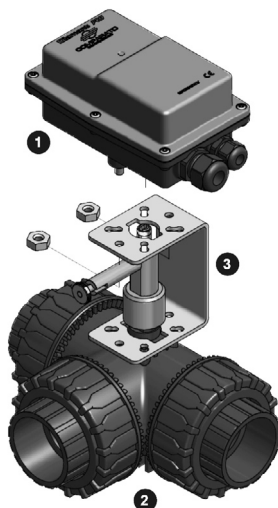
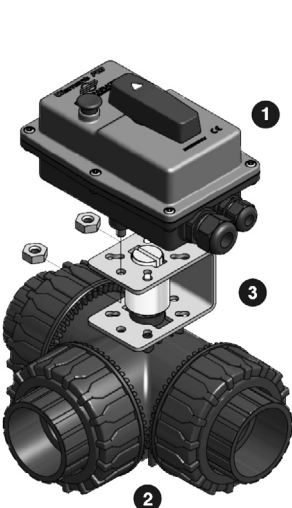
ISO connection	L
F05	11 mm
F07	14 mm

CONNECTION TO THE VALVE VIA ADAPTER KIT

- 1: Diamant PRO with COMPARATO connection
- 2: PVC ball valve
- 3: COMPARATO connection adapter kit

- 1: Diamant PRO with COMPARATO connection
- 2: PVC ball valve
- 3: COMPARATO connection adapter kit with manual override
(not compatible with actuators with manual override from the top)

- 1: Compact PRO / Universal PRO
- 2: PVC ball valve
- 3: ISO 5211 connection adapter kit

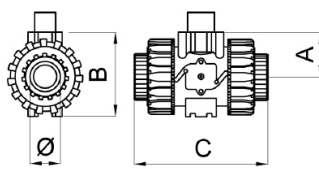


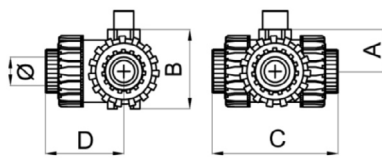
P20 Range

PVC-U BALL VALVES

OVERALL SIZE

BALL VALVES

MODEL	DN	Ø GLUED	Ø THREADED	A	B	C GLUED	C THREADED
 2-way	10	16	3/8"	25	54	103	103
	15	20	1/2"	25	54	103	110
	20	25	3/4"	31	65	115	116
	25	32	1"	34	73	128	134
	32	40	1 1/4"	42	86	146	153
	40	50	1 1/2"	48	98	164	156
	50	63	2"	60	123	199	186
	65	75	2 1/2"	109 *	196	235	235
	80	90	3"	122 *	227	270	270

MODEL	DN	Ø GLUED	Ø THREADED	A	B	C GLUED	C GLUED	C THREADED	C THREADED
 3-way "T" ball "L" ball	10	16	3/8"	28	57	118	59	118	59
	15	20	1/2"	28	57	118	59	125	63
	20	25	3/4"	34	68	145	72,5	146	73
	25	32	1"	39	77	160	80	166	83
	32	40	1 1/4"	43	90	188	94	196	98
	40	50	1 1/2"	50	101	220	110	211	106
	50	63	2"	61	123	266	133	254	127

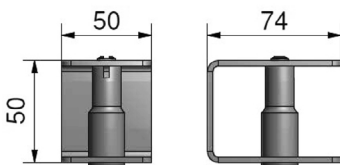
IMPORTANT: the overall dimensions of the ball valve consists in the sum of "A" quote and of the height of the adapter.

* : adapter not needed.

ADAPTER KIT for Diamant P20 with COMPARATO connection

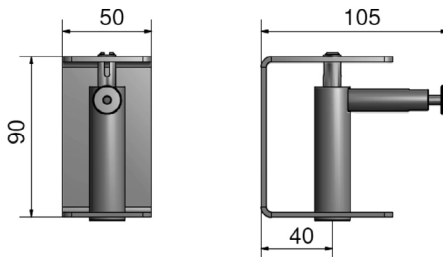
Adapter kit
for PVC ball valves

Spare part code **DIDM03PVC**



Adapter kit and manual override
for PVC ball valves

Spare part code **DIDM02PVC**

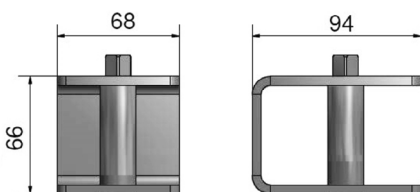


To be combined with actuators without manual top opening only

ADAPTER KIT FOR Compact P20 / Universal P20

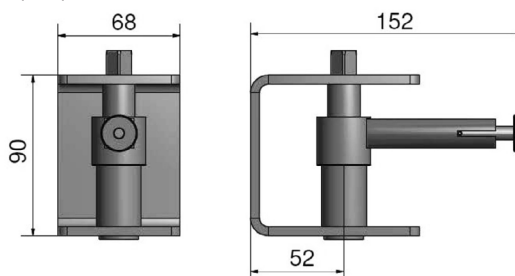
Adapter kit
for PVC ball valves

Spare part code **DICO03PVC**



Adapter kit and manual override
for PVC ball valves

Spare part code **DICO02PVC**



To be combined with actuators without manual top opening only



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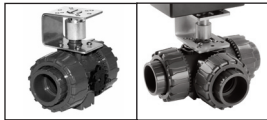
P20 Range

PVC-U BALL VALVES

ACTUATOR COMBINATION

The ball valves can be combined with all the IP67 and IP68 actuators in the **P20 Range**, depending on their use.

PVCu



DN	Ø	2-way PVCu	3-way PVCu
10	3/8"	DIAMANT PRO	DIAMANT PRO
15	1/2"	DIAMANT PRO	DIAMANT PRO
20	3/4"	DIAMANT PRO	DIAMANT PRO
25	1"	DIAMANT PRO	DIAMANT PRO
32	1" 1/4	DIAMANT PRO	DIAMANT PRO
40	1" 1/2	DIAMANT PRO COMPACT PRO	DIAMANT PRO COMPACT PRO
50	2"	COMPACT PRO UNIVERSAL PRO	COMPACT PRO
65	2" 1/2	UNIVERSAL PRO	-
80	3"	UNIVERSAL PRO	-

DIAMANT PRO

- DIAMANT PILOT
- DIAMANT SMART PRO
- DIAMANT CLIMA
- DIAMANT CRONO
- DIAMANT DC

COMPACT PRO

- COMPACT PILOT
- COMPACT SMART PRO
- COMPACT CLIMA
- COMPACT CRONO
- COMPACT IP68
- COMPACT DC

UNIVERSAL PRO

- UNIVERSAL PILOT
- UNIVERSAL SMART PRO
- UNIVERSAL IP68

EXAMPLE OF SPECIFICATIONS

COMPACT PRO ACTUATOR • ALL IN ONE, 2-point ON/OFF and 3-point ON/OFF or modulating, nominal torque: 22 Nm, power supply: 230 V - 50/60 Hz, operating time: 45 sec / 90°, operating angle: 90°, protection degree: IP67, for ball valve: 2 - 3 way, connection to ball valve via ISO 5211 F03/F05 connection, two auxiliary microswitches and manual override from the top.

BALL VALVE • PVCu ball valve, PTFE seals, full flow, PN16, threaded connections. Operating temperatures 0°C...+60 °C. Suitable for water and PVCu & E.P.D.M-compatible fluids

Version: 2-way FF DN50 - threaded connections 2" - Kvs 204 m³/h.

Brand: **COMPARATO**

Code: **CY222AF2C3**

UPDATED DATA SHEETS AVAILABLE AT www.comparato.com

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BUILDING
INFORMATION
MODELING



HYDROTHERMAL SYSTEMS
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