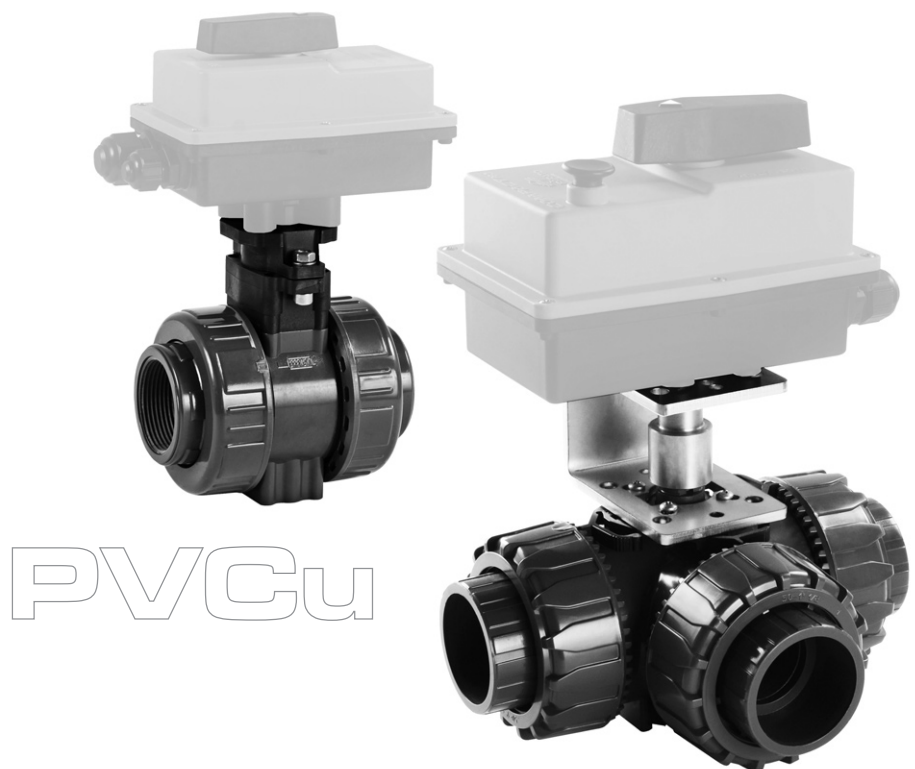


PRO Range

PVC-U BALL VALVES

USE

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



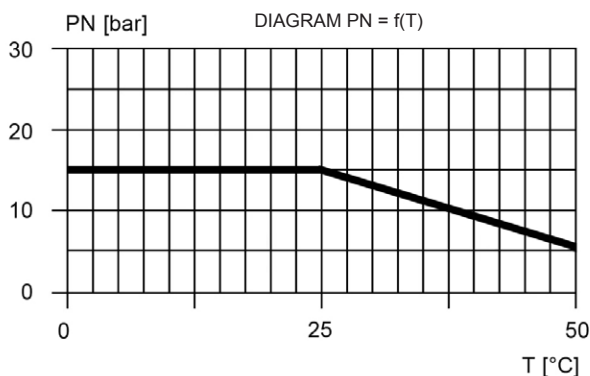
FUNCTIONS

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



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PRO Range

PVC-U BALL VALVES

VERSIONS AND HYDRAULIC FEATURES



2-WAY VALVE PVCu

DN	Connections	PN	Δp max [bar]	K_{vs} [m³/h]	To be combined with series
	threaded glued				
10	Rp 3/8"	16	16	11,4	DIAMANT PRO ISO
15	Rp 1/2"	20	16	11,4	DIAMANT PRO ISO
20	Rp 3/4"	25	16	22,8	DIAMANT PRO ISO
25	Rp 1"	32	16	42	DIAMANT PRO ISO
32	Rp 1 1/4"	40	16	60	DIAMANT PRO ISO
40	Rp 1 1/2"	50	16	102	DIAMANT PRO ISO COMPACT PRO
50	Rp 2"	63	16	192	COMPACT PRO UNIVERSAL PRO
65	Rp 2 1/2"	75	16	420	UNIVERSAL PRO
80	Rp 3"	90	16	420	UNIVERSAL PRO
100	Rp 4"	110	16	600	UNIVERSAL PRO



3-WAY VALVE PVCu
"T"-PORT and "L"-PORT

DN	Connections	PN	Δp max [bar]	K_{vs} * [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	16	28,5 37,2	DIAMANT PRO COMPACT PRO
50	Rp 2"	63	16	54 73,2	COMPACT PRO

* The Kvs value refers to the most hampered way.

CODES FOR DIAMANT PRO COMPARATO CONNECTION



2-WAY VALVE PVCu
with CONNECTION KIT

DN	Connections	PN	K_{vs} [m³/h]	Codice SFERA "T"	Codice SFERA "L"
THREADED connection					
			"T" port "L" port		
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					
			"T" port "L" port		
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	Connections	PN	K_{vs} [m³/h]	Codice SFERA "T"	Codice SFERA "L"
THREADED connection					
			"T" port "L" port		
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					
			"T" port "L" port		
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

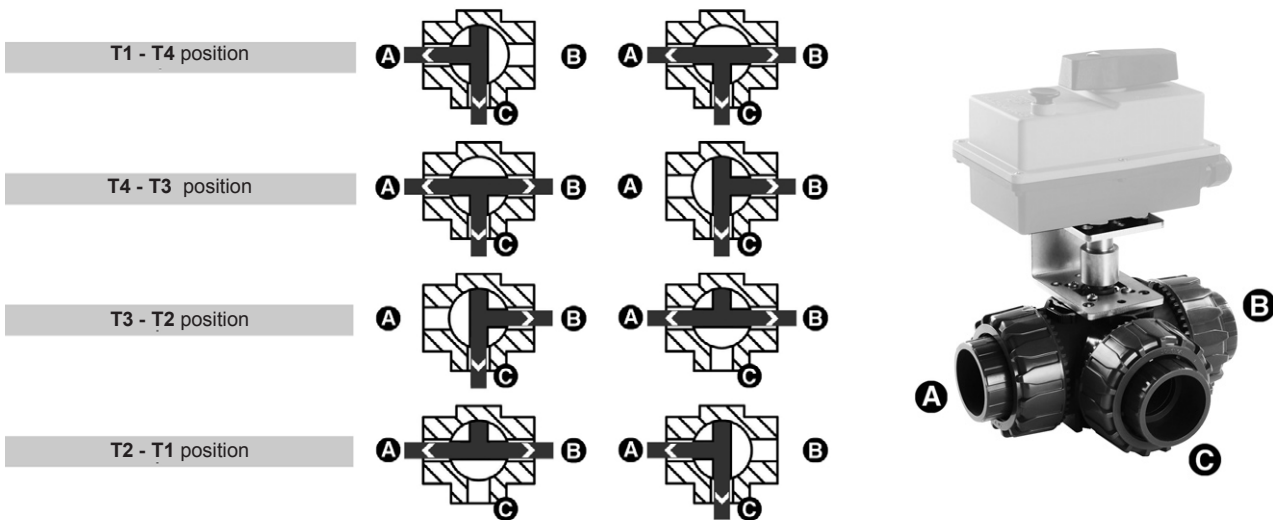
PVC-U BALL VALVES

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.

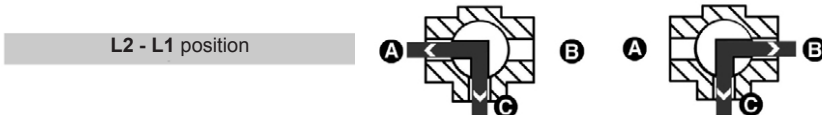
DIVERTER BALL VALVE • "T" BALL

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 pin.



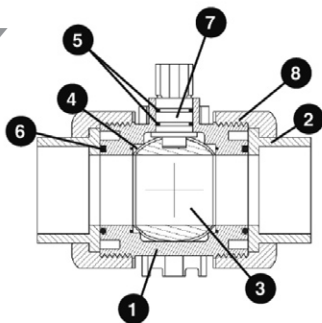
DIVERTER BALL VALVE • "L" BALL

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 pin.

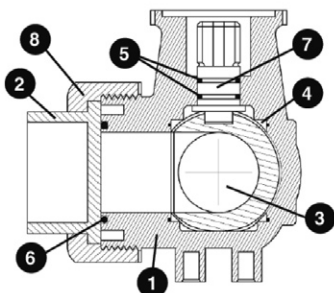


MATERIALS USED

2-WAY



3-WAY



PVCU BALL VALVE, 2-WAY and 3-WAY

1	BODY	PVCu
2	SLEEVE	PVCu
3	BALL	PVCu
4	BALL SEAL	P.T.F.E.
5	ROD SEAL	EPDM
6	SEALING GASKET	EPDM
7	CONTROL ROD	PVCu
8	COUPLING RING	PVCu



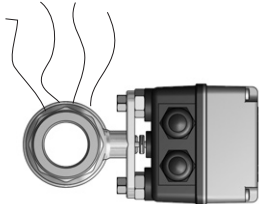
PRO Range

PVC-U BALL VALVES

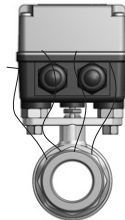
INSTALLATION

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

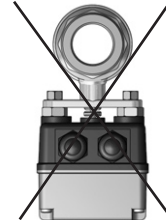
RECOMMENDED POSITION



ALLOWED POSITION



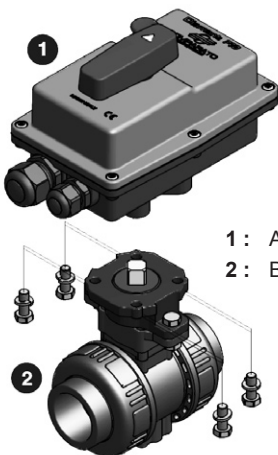
FORBIDDEN POSITION



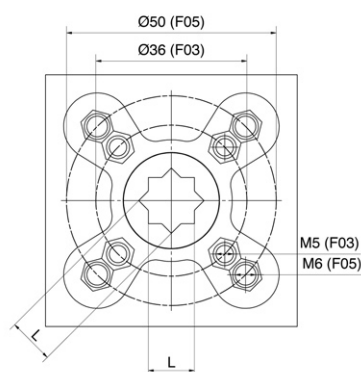
CAUTION! Do not use high-pressure water directly on the actuator (e.g. a pressure washer)

CONNECTION TO THE BALL VALVE

DIRECT CONNECTION TO THE 2-WAY VALVE

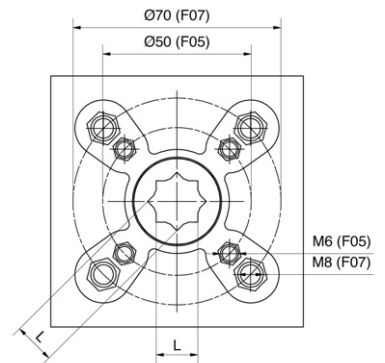


- 1 : Actuator with ISO 5211 connection
- 2 : Ball valve



Diamant PRO ISO Compact PRO

ISO connection	L
F03	9 mm
F05	11 mm



Universal PRO

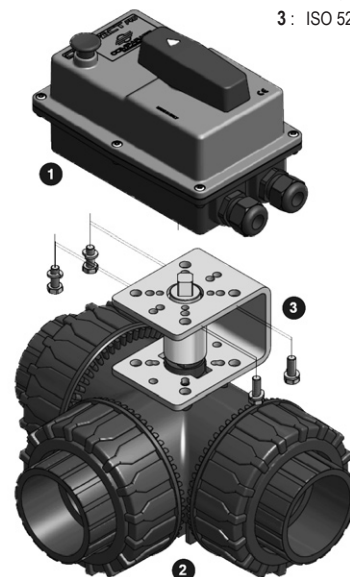
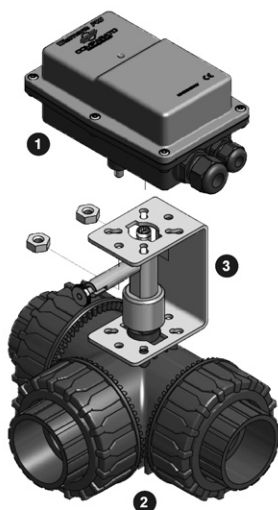
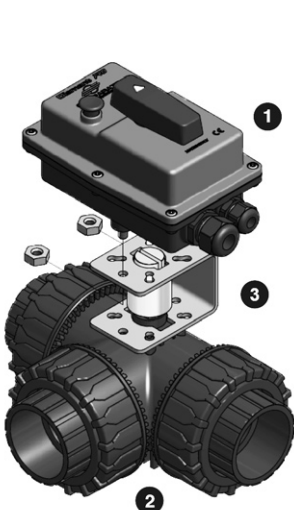
ISO connection	L
F05	11 mm
F07	14 mm

CONNECTION TO THE VALVE VIA THE 3-WAY VALVE ADAPTER KIT

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

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

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

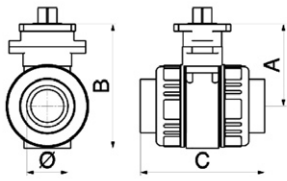


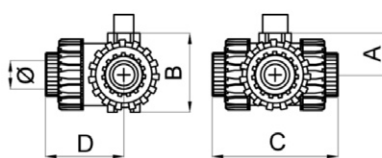
P20 Range

PVC-U BALL VALVES

OVERALL SIZE

BALL VALVES

MODELLO	DN	Ø GLUED	Ø THREADED	A	B	C GLUED	C THREADED
 2-way	10	16	3/8"	58	83	80	80
	15	20	1/2"	58	83	80	80
	20	25	3/4"	65	96	92	92
	25	32	1"	74	109	106	106
	32	40	1 1/4"	79	120	121	121
	40	50	1 1/2"	87	137	143	130
	50	63	2"	107	169	172	150
	65	75	2 1/2"	117	200	229	229
	80	90	3"	117	200	242	213
	100	110	4"	138	242	284	284

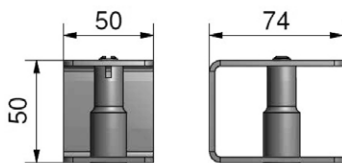
MODELLO	DN	Ø GLUED	Ø THREADED	A	B	C GLUED	D GLUED	C THREADED	D THREADED
 3-way "T" ball "L" ball	10	16	3/8"	28	57	118	59	118	59
	15	20	1/2"	28	57	118	59	125	63
	20	25	3/4"	34	68	145	72,5	146	73
	25	32	1"	39	77	160	80	166	83
	32	40	1 1/4"	43	90	188	94	196	98
	40	50	1 1/2"	50	101	220	110	211	106
	50	63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

PLEASE NOTE: in order to couple 3-WAY PVC ball valves to the actuator, a spacer needs to be fit in.

ADAPTER KIT for **Diamant P20** with **COMPARATO** connection

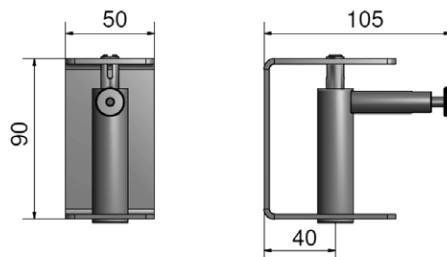
Adapter kit for 3-way PVC ball valves

Spare part code **DIDM03PVC**



Adapter kit and manual override for 3-way PVC ball valves

Spare part code **DIDM02PVC**

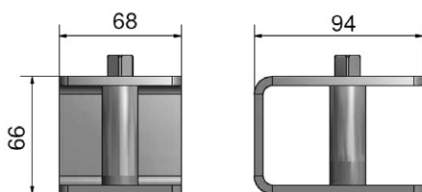


To be combined with actuators without manual top opening only

ADAPTER KIT FOR **Compact P20**

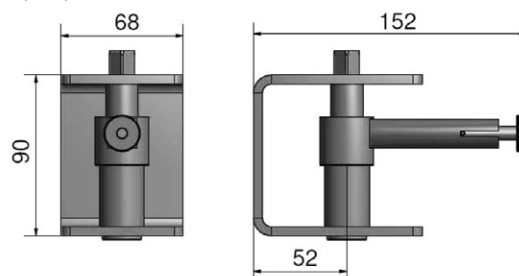
Adapter kit for 3-way PVC ball valves

Spare part code **DICO03PVC**



Adapter kit and manual override for 3-way PVC ball valves

Spare part code **DICO02PVC**



To be combined with actuators without manual top opening only



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PRO Range

PVC-U BALL VALVES

ACTUATOR COMBINATION

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

PVCu



DN	Ø	2 vie PVCu	3 vie PVCu
10	3/8"	DIAMANT PRO ISO	
15	1/2"	DIAMANT PRO ISO	
20	3/4"	DIAMANT PRO ISO	
25	1"	DIAMANT PRO ISO	
32	1" 1/4	DIAMANT PRO ISO	
40	1" 1/2	COMPACT PRO UNIVERSAL PRO	COMPACT PRO
50	2"	COMPACT PRO UNIVERSAL PRO	COMPACT PRO
65	2" 1/2	UNIVERSAL PRO	-
80	3"	UNIVERSAL PRO	-
100	4"	UNIVERSAL PRO	-

AVAILABLE ON DIAMANT PRO
WITH COMPACT CONNECTION

DIAMANT PRO ISO

- DIAMANT PILOT
- DIAMANT SMART PRO
- DIAMANT CLIMA
- DIAMANT CRONO
- DIAMANT IP68
- 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 - 2" - Kvs 192.

Brand: **COMPARATO**

Code: **CY222AF2C3**

UPDATED DATA SHEETS AVAILABLE AT www.comparato.com

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