

PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

USE

- systems using alternative energy
- automation systems
- glycol cooling systems
- heating/cooling systems
- open and closed hydraulic systems
- industrial systems using hot and cold fluids
- drinking water systems, with suitable ball valve
- water treatment systems
- compressed air systems

KEY FEATURES

- innovative "ALL IN ONE" control
- IP67 degree of electrical protection
- extra microswitches in opening and closing position
- manual override from the top
- different operating times

Diamant
PRO



Compact
PRO



Universal
PRO

ISO 5211 Connection

TECHNICAL FEATURES	Diamant PRO		Compact PRO	Universal PRO
Electric control	2/3-point ALL IN ONE			
Connection with ball valve	ISO 5211 F03/F05		ISO 5211 F03/F05	ISO 5211 F05/F07
Operation	ON/OFF • Modulating			
Rotation	90° • 180°			
Compatible ball valves	2-way • 3-way diverter • 3-way mixer			
Position indicator	Arrow on the lever for manual opening			
Motor	Bidirectional - synchronous			
Power supply	230V 50/60 Hz • 24V 50/60 Hz • 110V 50/60 Hz *			
Electrical connection	Internal terminal block			
Nominal torque	5 Nm	11 Nm	22 Nm	40 Nm
Operating time (90°) [seconds]	4	12 • 35 ** • 108 • 320	9 • 45 **	14 • 32 • 55 **
Power consumption	13 VA	7,5 VA	24 VA	24 VA
Flow rate of outlet phase to terminals 4 and 5	1 A resistive			
Maximum noise (at 1 meter distance)	35 dB(A)		42 dB(A)	50 dB(A)
Power output of extra micros	1 A resistive			
Heating resistance power	3W			
Operational room temperature	- 10° C ÷ 50° C			
Fluid temperature	See features of ball valves			
Protection degree	IP67			
External covering	Glass-filled "polyarylamide" technopolymer			
Material of external metal components and seals	AISI 303 GVR and brass CW617N • silicone seals			
Maintenance	None			
Certification	CE			

* For UNIVERSAL PRO the 60Hz version is available on request




** standard version



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VERSIONS

Actuator	Rotation angle	Operating time	Power supply	Base code
 <p>Diamant PRO ISO</p>	90°	35 sec	230V 50/60Hz	DY222F2A
	90°	35 sec	110V 50/60Hz	DY212F2A
	90°	35 sec	24V 50/60Hz	DY242F2A
	180°	70 sec	230V 50/60Hz	DY322F2A
	180°	70 sec	110V 50/60Hz	DY312F2A
	180°	70 sec	24V 50/60Hz	DY342F2A
 <p>Compact PRO</p>	90°	45 sec	230V 50/60Hz	CY2222P
	90°	45 sec	110V 50/60Hz	CY2122P
	90°	45 sec	24V 50/60Hz	CY2422P
	180°	90 sec	230V 50/60Hz	CY3222P
	180°	90 sec	110V 50/60Hz	CY3122P
	180°	90 sec	24V 50/60Hz	CY3422P
 <p>Universal PRO</p>	90°	55 sec	230V 50/60Hz	UY2222P
	90°	55 sec	110V 50/60Hz	UY2122P
	90°	55 sec	24V 50/60Hz	UY2422P
	180°	110 sec	230V 50/60Hz	UY3222P
	180°	110 sec	110V 50/60Hz	UY3122P
	180°	110 sec	24V 50/60Hz	UY3422P

ACCESSORIES

You can add any accessory to the actuators of the **PRO Range** by adding or removing items from the **base code**.

Diamant PRO ISO 5211

DY222F2A

- Manual override from the top *
remove A = Not present
- Operating times
Q = 4 sec (90°)
D = 12 sec (90°)
C8 = 106 sec (90°)
32 = 320 sec (90°)
- Heating resistance
R = Present

STARTING base code

Compact PRO

CY2222P

- Manual override from the top *
SA = Not present
- Operating times
9 = 9 sec (90°)
- Heating resistance
R = Present

STARTING base code

* manual override is only available with standard operating times.

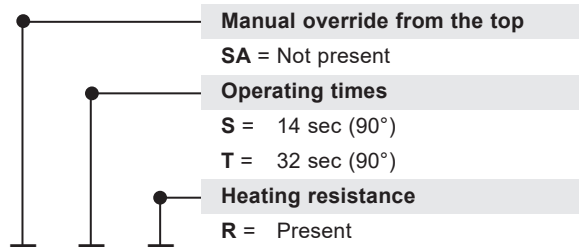


PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

Universal PRO

UY2222P



STARTING base code

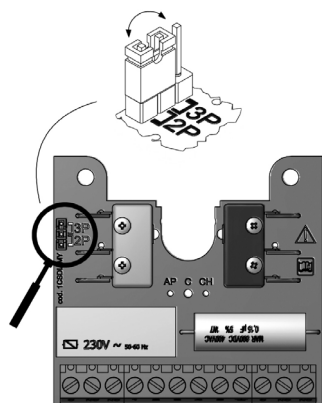
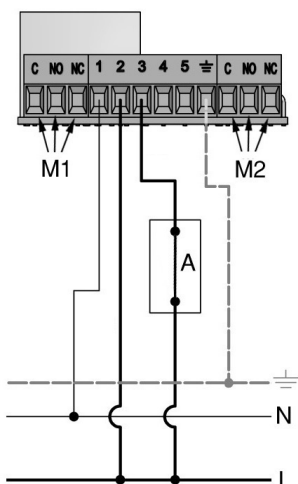
ELECTRICAL CONNECTIONS

With the electrical **ALL IN ONE** control, you can select the **2-POINT** control or the **3-POINT** control by moving the selector (jumper) mounted on the electrical circuit inside the actuator.

2-POINT CONTROL • ON/OFF (SWITCH)

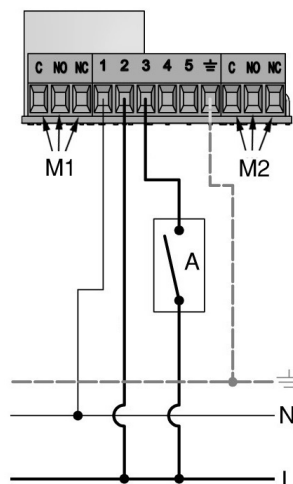
One electric control can activate several actuators.

OPENING ACTUATOR



Position the jumper as shown in the picture to have the desired electrical connection

CLOSING ACTUATOR



- 1 - Neutro
- 2 - Fase chiusura
- 3 - Fase apertura
- 4 - Fase in uscita apertura
- 5 - Fase in uscita chiusura

DIAMANT PRO
COMPACT PRO:

- M1 - Auxiliary micro in opening position
- M2 - Auxiliary micro in closing position

UNIVERSAL PRO:

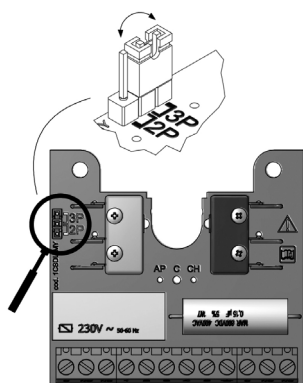
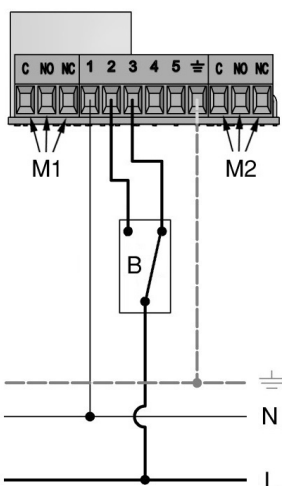
- M1 - Auxiliary micro in closing position
- M2 - Auxiliary micro in opening position

- A - Comando tipo interruttore
- ≡ - Terra

3-POINT CONTROL • ON/OFF (DIVERTER)

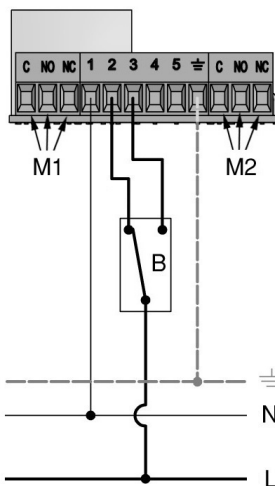
Each actuator must be operated by a single electric control

OPENING ACTUATOR



Position the jumper as shown in the picture to have the desired electrical connection

CLOSING ACTUATOR



- 1 - Neutro
- 2 - Fase chiusura
- 3 - Fase apertura
- 4 - Fase in uscita apertura
- 5 - Fase in uscita chiusura

DIAMANT PRO
COMPACT PRO:

- M1 - Auxiliary micro in opening position
- M2 - Auxiliary micro in closing position

UNIVERSAL PRO:

- M1 - Auxiliary micro in closing position
- M2 - Auxiliary micro in opening position

- B - Comando tipo interruttore
- ≡ - Terra



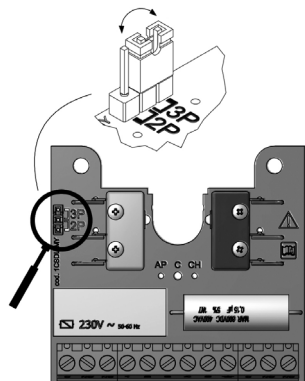
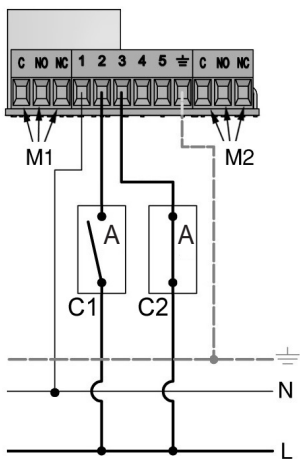
PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

3-POINT CONTROL • MODULATING

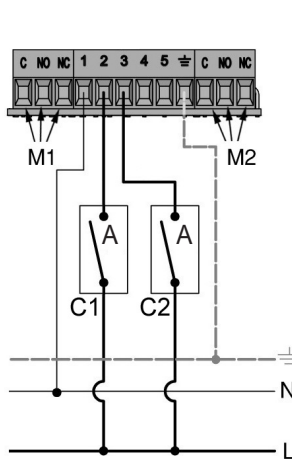
Each actuator must be operated by a single electric control

OPENING ACTUATOR

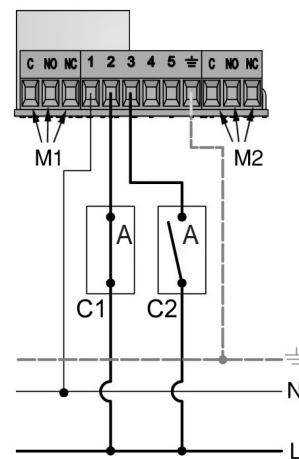


Position the jumper as shown in the picture to have the desired electrical connection

INTERMEDIATE POSITION



CLOSING ACTUATOR



- 1 - Neutral
- 2 - Closing phase
- 3 - Opening phase
- 4 - Outlet opening phase
- 5 - Outlet closing phase
- C1 - Closing control
- C2 - Opening control

- DIAMANT PRO - COMPACT PRO:**
- M1 - Auxiliary micro in opening position
 - M2 - Auxiliary micro in closing position

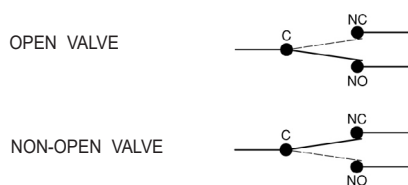
- UNIVERSAL PRO:**
- M1 - Auxiliary micro in closing position
 - M2 - Auxiliary micro in opening position

- A - Switch-type control
- ≡ - Earth

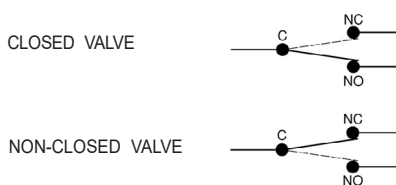
AUXILIARY MICROSWITCHES

The layout of the extra microswitch contacts is shown in the following pictures:

M1 • OPENING AUXILIARY MICROSWITCH



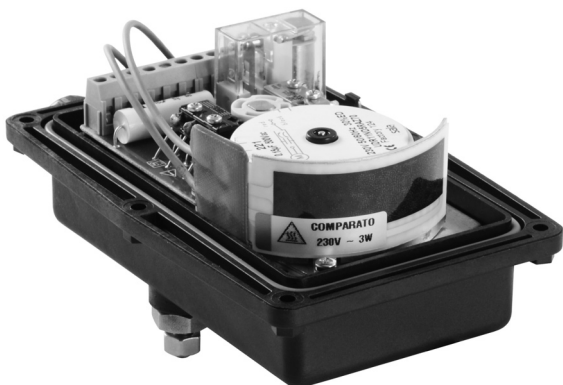
M2 • CLOSING AUXILIARY MICROSWITCH



HEATING RESISTANCE

The electrical connection of the internal heater is independent of the positioning control.

The device features faston-type terminals and its voltage is the same as the power supply.

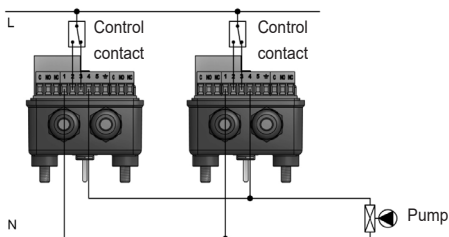


PRO Range

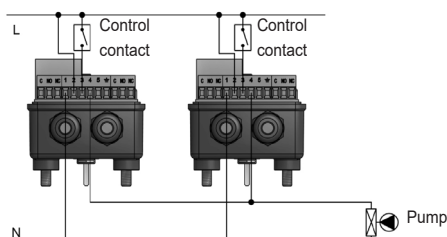
ROTARY ACTUATORS - ISO 5211 CONNECTION

EXAMPLES OF ELECTRICAL CONNECTIONS

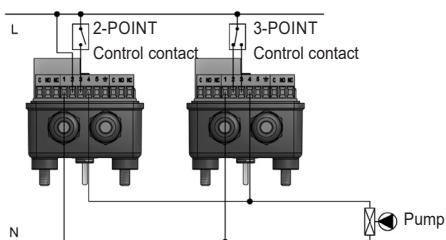
CONNECTION OF THE PUMP STOP WITH TWO 3-POINT ACTUATOR



CONNECTION OF THE PUMP STOP WITH TWO 2-POINT ACTUATOR



CONNECTION OF THE PUMP STOP WITH A 2-POINT ACTUATOR AND A 3-POINT ACTUATOR



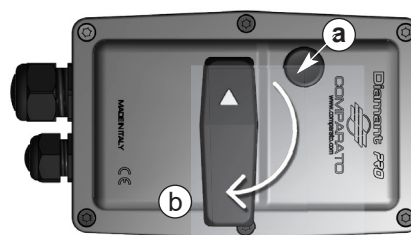
MANUAL OPERATION

The manual override allows to activate the valve in case of emergency or black-out.

For **Diamant PRO ISO** and **Compact PRO** the manual opening is only available for standard operating times.



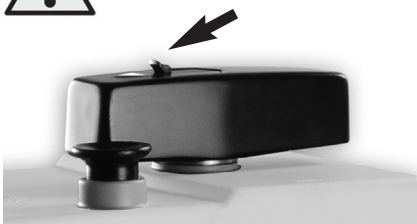
Actuator in **OPENING** position. Press the release button (a) and, simultaneously, rotate the lever (b) 90° **COUNTERCLOCKWISE**, in order to move the actuator in the **CLOSING** position.



Actuator in **CLOSING** position. Press the release button (a) and, simultaneously, rotate the lever (b) 90° **CLOCKWISE**, in order to move the actuator in the **OPENING** position.



When you release the plunger, the actuator returns to the control position if it still powered and is able to perform the operation



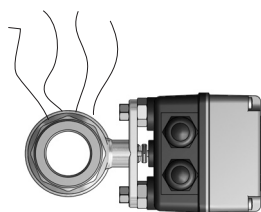
Universal PRO

If you cannot manually operate the ball valve, you can remove the plastic handle by pressing the lever in the direction shown and operate it manually using a size 17mm wrench. Pay attention not to exceed the 40 Nm torque provided by the actuator, in order to avoid the risk of breaks.

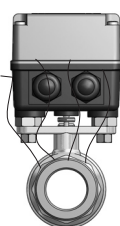
INSTALLATION

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

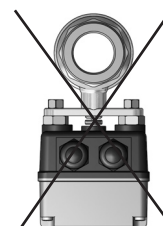
RECOMMENDED POSITION



ALLOWED POSITION



FORBIDDEN POSITION



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

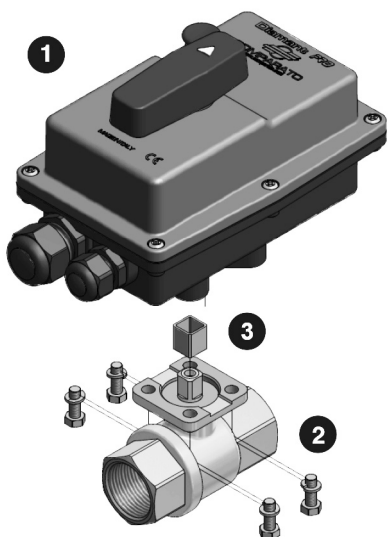


PRO Range

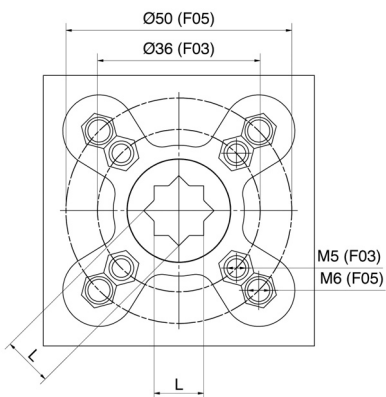
ROTARY ACTUATORS - ISO 5211 CONNECTION

CONNECTION TO THE BALL VALVE

DIRECT CONNECTION TO THE VALVE

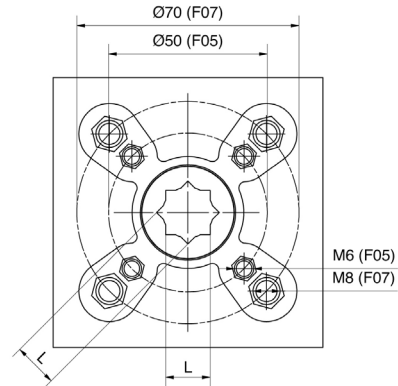


Diamant PRO iso Compact PRO



ISO 5211 connection	L
F03	9 mm
F05	11 mm

Universal PRO

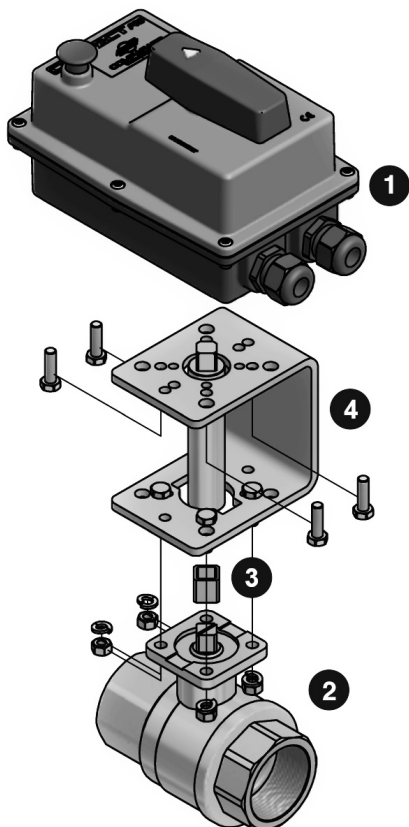


ISO 5211 connection	L
F05	11 mm
F07	14 mm

- 1: PRO Range actuator ISO 5211 connection
- 2: Ball valve
- 3: Panel adapter (if necessary)

CONNECTION TO THE BALL VALVE WITH A SPACER

On **Compact PRO** and **Universal PRO** motorized valves, the insulation spacer can be added by adding "D1" to the end of the assembly code. For the use of the insulation spacer (or spacer with manual opening) with **Diamant PRO** actuators, please refer to the "**Diamant PRO** Comparato connection - DP0.0-20".



Compact PRO Universal PRO

- 1: Compact PRO / Universal PRO
- 2: Ball valve
- 3: Panel adapter (if necessary)
- 4: Spacer for insulation



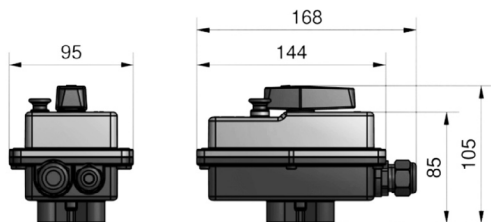
PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

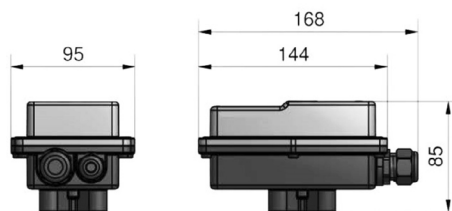
OVERALL SIZE

ACTUATORS

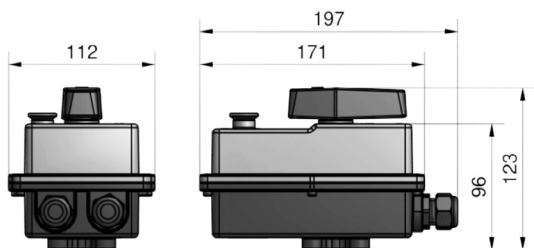
Diamant PRO ISO



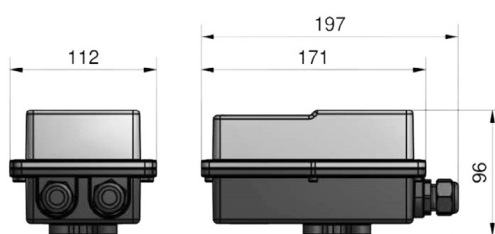
Diamant PRO ISO version WITHOUT manual override from the top



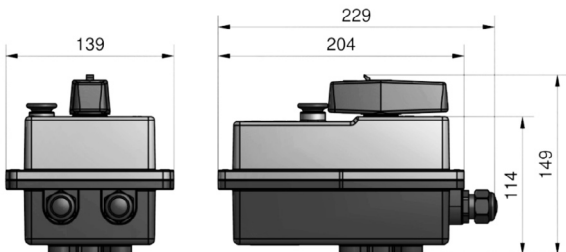
Compact PRO



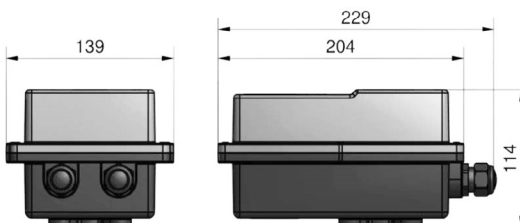
Compact PRO version WITHOUT manual override from the top



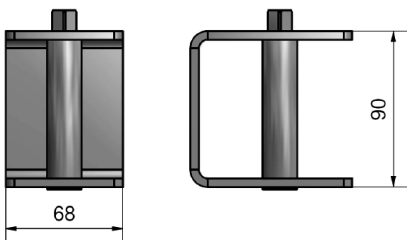
Universal PRO



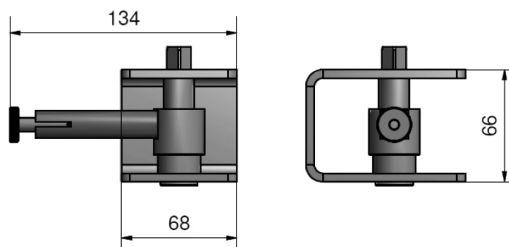
Universal PRO version WITHOUT manual override from the top



SPACERS FOR INSULATION



SPACERS FOR INSULATION WITH MANUAL OVERRIDE FROM THE TOP



	Compact PRO	Universal PRO
Part code	DICOM35	DICOM57

	Compact PRO	Universal PRO
Part code	DICO05ADC	DICO07ADC

To be combined with actuators without manual top opening only



PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

BALL VALVE ASSIGNMENT - LISTED COUPLINGS



DN	Ø	2-way BRASS	3-way BRASS	3-way BRASS Mixing Diverting	2-way INOX	3-way INOX	2-way PVC	3-way PVC	2-way FLANGED BALL VALVE cast iron	BUTTERFLY	
-	1/4"	DIAMANT PRO ISO	DIAMANT PRO ISO	-	-	DIAMANT PRO ISO	-	-	-	-	
10	3/8"	DIAMANT PRO ISO	DIAMANT PRO ISO	-	-	DIAMANT PRO ISO	DIAMANT PRO ISO	AVAILABLE ON DIAMANT PRO COMPACTO CONNECTION	-	-	
15	1/2"	DIAMANT PRO ISO	DIAMANT PRO ISO	DIAMANT PRO ISO	DIAMANT PRO ISO	DIAMANT PRO ISO COMPACT PRO	DIAMANT PRO ISO		-	-	
20	3/4"	DIAMANT PRO ISO	DIAMANT PRO ISO COMPACT PRO	DIAMANT PRO ISO	DIAMANT PRO ISO	COMPACT PRO	DIAMANT PRO ISO		-	-	
25	1"	DIAMANT PRO ISO	COMPACT PRO	DIAMANT PRO ISO COMPACT PRO	DIAMANT PRO ISO COMPACT PRO	COMPACT PRO UNIVERSAL PRO	DIAMANT PRO ISO		COMPACT PRO	-	
32	1" 1/4	DIAMANT PRO ISO COMPACT PRO	COMPACT PRO UNIVERSAL PRO	COMPACT PRO	COMPACT PRO	UNIVERSAL PRO	DIAMANT PRO ISO		COMPACT PRO UNIVERSAL PRO	COMPACT PRO	
40	1" 1/2	COMPACT PRO	UNIVERSAL PRO	COMPACT PRO UNIVERSAL PRO	COMPACT PRO UNIVERSAL PRO	-	DIAMANT PRO ISO COMPACT PRO		COMPACT PRO	UNIVERSAL PRO	COMPACT PRO
50	2"	COMPACT PRO UNIVERSAL PRO	UNIVERSAL PRO	UNIVERSAL PRO	UNIVERSAL PRO	-	COMPACT PRO UNIVERSAL PRO		COMPACT PRO	UNIVERSAL PRO	COMPACT PRO UNIVERSAL PRO
65	2" 1/2	UNIVERSAL PRO	-	-	-	-	UNIVERSAL PRO		-	-	UNIVERSAL PRO
80	3"	UNIVERSAL PRO	-	-	-	-	UNIVERSAL PRO		-	-	UNIVERSAL PRO
100	4"	UNIVERSAL PRO	-	-	-	-	UNIVERSAL PRO		-	-	UNIVERSAL PRO

Other combinations on request

EXAMPLE OF SPECIFICATIONS

DIAMANT PRO ISO ACTUATOR • ALL IN ONE (2-point ON/OFF or 3-point ON/OFF or 3-point modulating), nominal torque: 11 Nm, power supply: 230V - 50/60 Hz, operating times: 35 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.

Brand: **COMPARATO**
Code: **DY222F2A**

UPDATED DATA SHEETS AVAILABLE AT www.comparato.com

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