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**

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 * ±10%		
Electrical connection	Internal terminal block		
Nominal torque	5 Nm | 11 Nm	22 Nm	40 Nm
Operating time for 90° (seconds)	4 | 12 • **35** ** • 108 • 320	9 • **45** **	14 • 32 • **55** **
Maximum power consumption	13 VA | 7,5 VA	24 VA	24 VA
Flow rate of outlet phase to terminals 4 and 5	1A, resistive		
Maximum noise (at 1 meter distance)	35 dB(A)	42 dB(A)	50 dB(A)
Power output of extra micros	1A, resistive		
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		

* per le UNIVERSAL PRO le versioni DIAMANT PRO 4 sec e 12 sec la versione 60Hz è disponibile a richiesta • ** versione standard

PRO Range

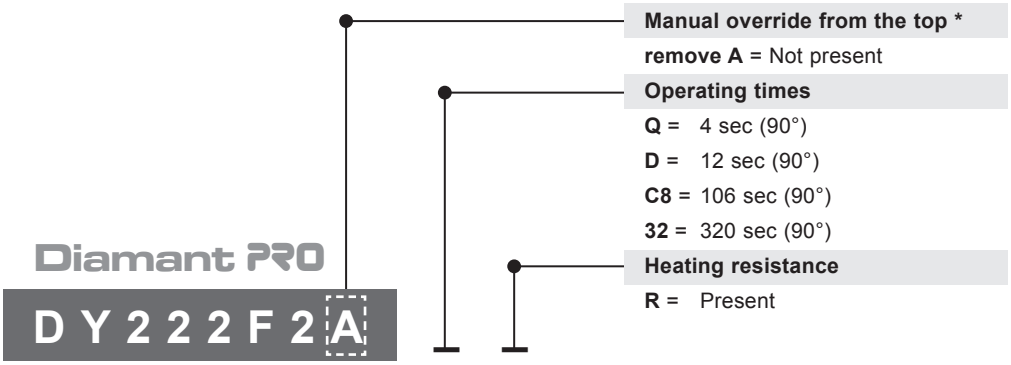
ROTARY ACTUATORS - ISO 5211 CONNECTION

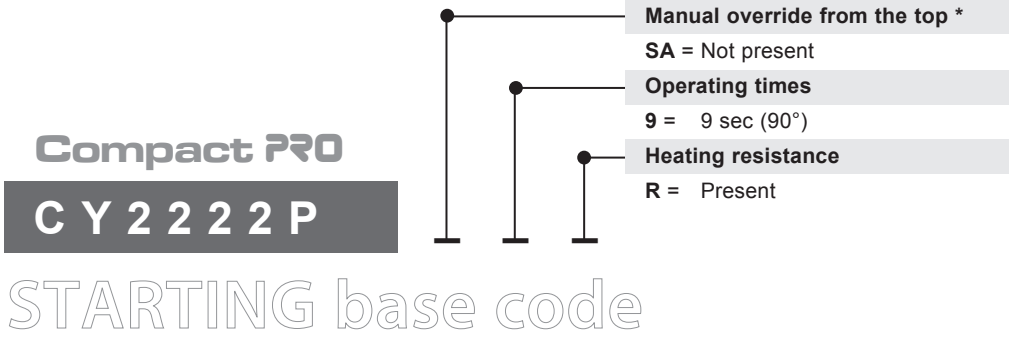
VERSIONS

Actuator	Rotation angle	Operating time	Power supply	Base code
Diamant PRO ISO	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
Compact PRO ISO	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
Universal PRO ISO	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**.





* only available with standard operating time

PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

Manual override from the top
SA = Not present
Operating times
S = 12 sec (90°)
T = 32 sec (90°)
Heating resistance
R = Present

Universal PRO

U Y 2 2 2 2 P

STARTING base code

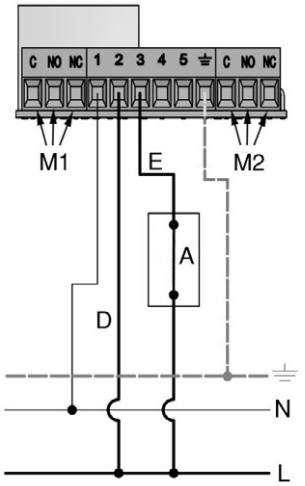
ELECTRICAL CONNECTIONS

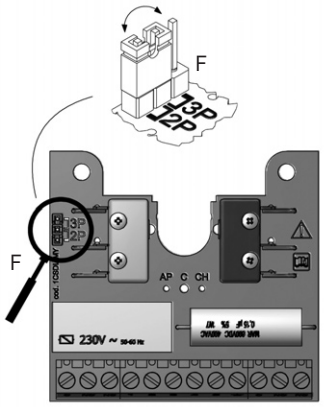
With the electrical **ALL IN ONE** control, you can select the **2-POINT** control or the **3-POINT** control by moving the selector (jumper) mounted on the electrical circuit inside the actuator.

2-POINT CONTROL • ON/OFF (SWITCH)

One electric control can activate several actuators.

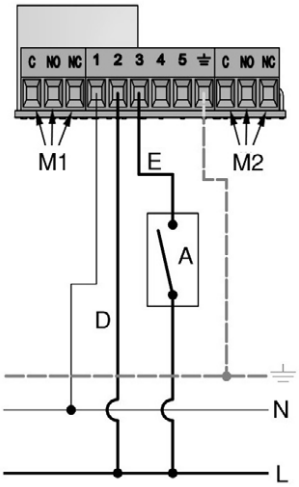
OPENING ACTUATOR





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

CLOSING ACTUATOR



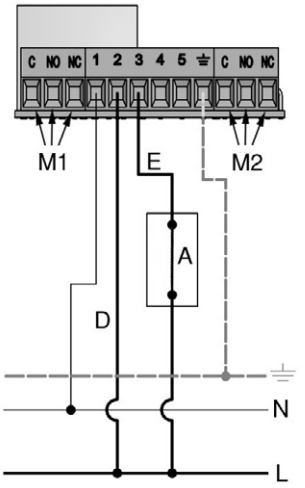
1 - Neutral
2 - Closing phase
3 - Opening phase
4 - Outlet opening phase
5 - Outlet closing phase
M1 - Auxiliary micro in opening position
M2 - Auxiliary micro in closing position

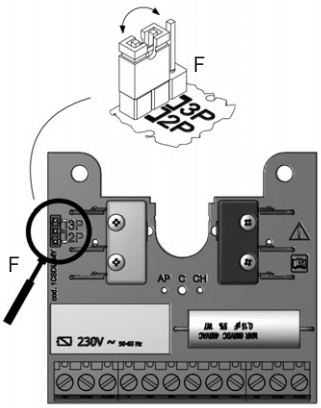
A - Switch-type control
⏚ - Earth

3-POINT CONTROL • ON/OFF (DIVERTER)

Each actuator must be operated by a single electric control

OPENING ACTUATOR





Position the jumper
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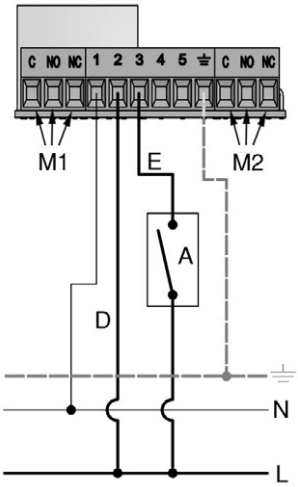
CLOSING ACTUATOR



1 - Neutral
2 - Closing phase
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5 - Outlet closing phase
M1 - Auxiliary micro in opening position
M2 - Auxiliary micro in closing position

A - Switch-type control
⏚ - Earth

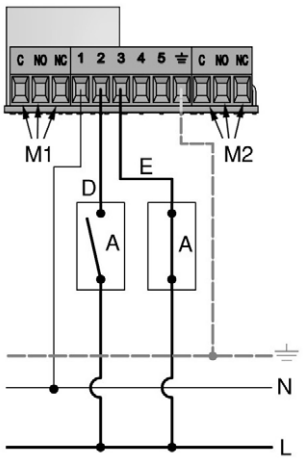
PRO Range

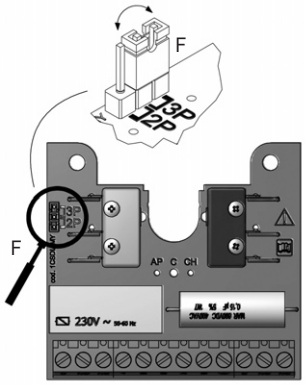
ROTARY ACTUATORS - ISO 5211 CONNECTION

3-POINT CONTROL • MODULATING

Each actuator must be operated by a single electric control

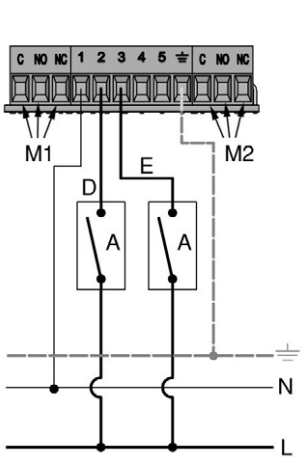
OPENING ACTUATOR



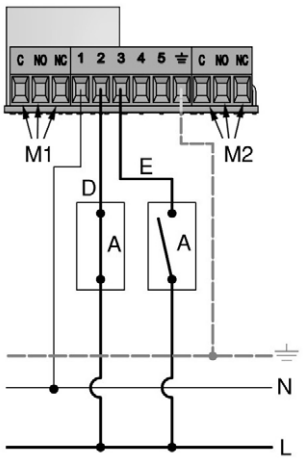


Position the jumper
as shown in the picture to have
the desired electrical connection

INTERMEDIATE POSITION



CLOSING ACTUATOR



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

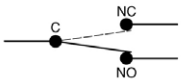
M1 - Auxiliary micro in opening position
M2 - Auxiliary micro in closing position
A - Switch-type control
⏚ - Earth

AUXILIARY MICROSWITCHES

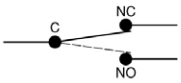
The layout of the extra microswitch contacts is shown in the following pictures:

M1 • OPENING AUXILIARY MICROSWITCH

OPEN VALVE

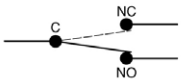


NON-OPEN VALVE

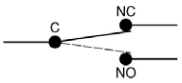


M2 • CLOSING AUXILIARY MICROSWITCH

CLOSED VALVE

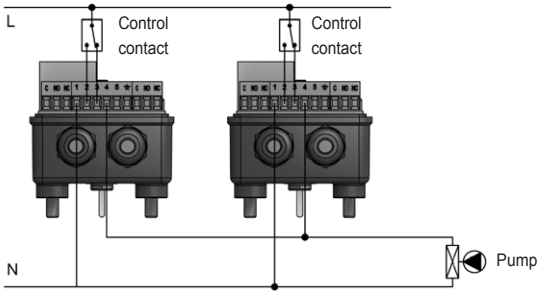


NON-CLOSED VALVE

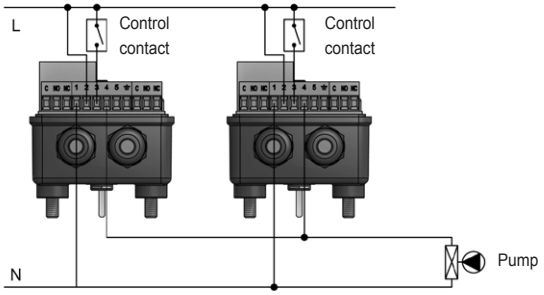


EXAMPLES OF ELECTRICAL CONNECTIONS

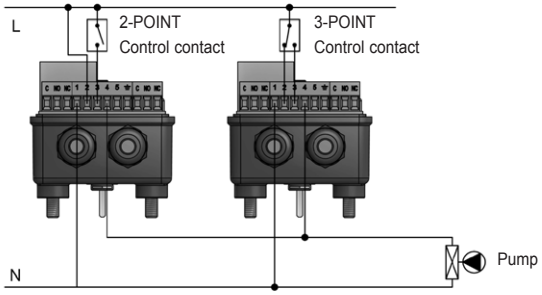
CONNECTION OF THE PUMP STOP WITH **TWO 3-POINT ACTUATOR**



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**



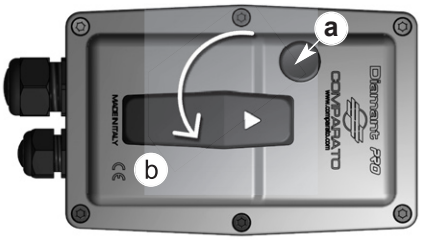
PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

MANUAL OPERATION

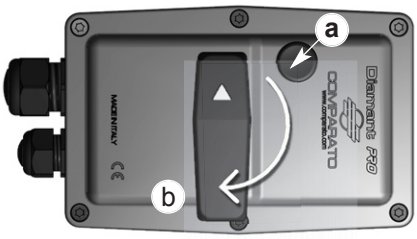
The manual override allows to activate the valve in case of emergency or black-out.

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

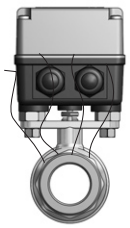
Universal PRO

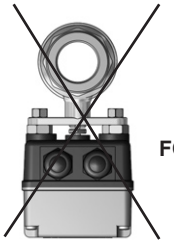
If you cannot manually operate the ball valve, you can remove the plastic handle by pressing the lever in the direction shown and operate it manually using a size 17mm wrench. Pay attention not to exceed the 40 Nm torque provided by the actuator, in order to avoid the risk of breaks.

INSTALLATION

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

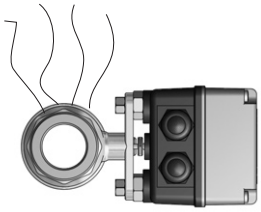
ALLOWED POSITION





FORBIDDEN POSITION

RECOMMENDED POSITION



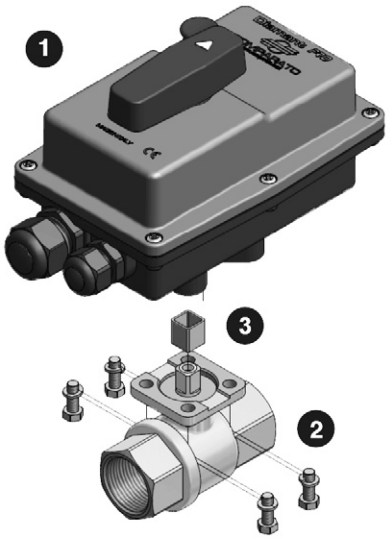
CAUTION! Do not use high-pressure water directly on the actuator (e.g. a pressure washer)

PRO Range

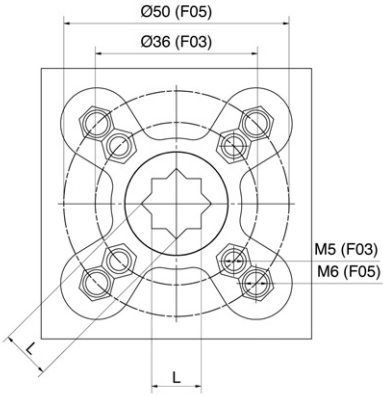
ROTARY ACTUATORS - ISO 5211 CONNECTION

CONNECTION TO THE BALL VALVE

DIRECT CONNECTION TO THE VALVE

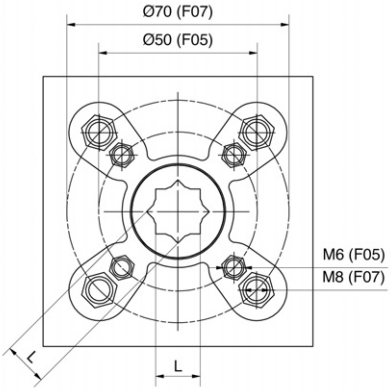


Diamant PRO ISO
Compact PRO ISO



ISO 5211 connection	L
F03	9 mm
F05	11 mm

Universal PRO ISO

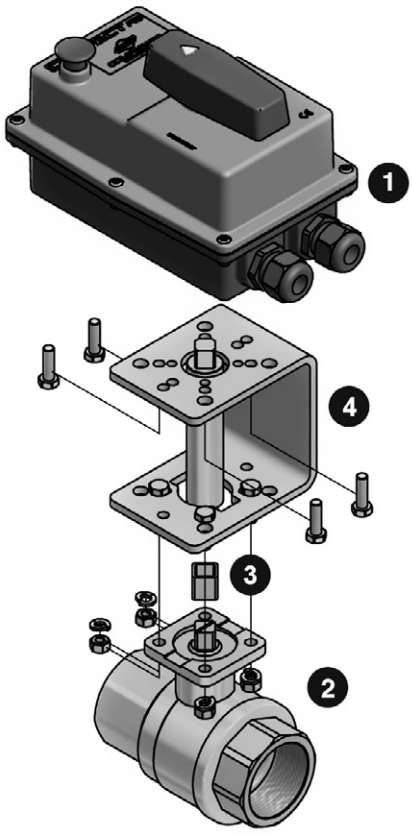


ISO 5211 connection	L
F05	11 mm
F07	14 mm

1 : PRO Range actuator
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

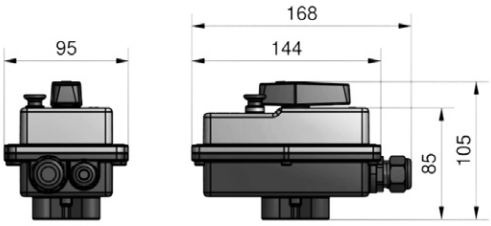
PRO Range

ROTARY ACTUATORS - ISO 5211 CONNECTION

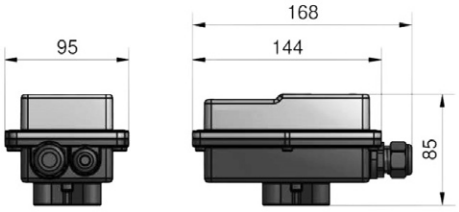
OVERALL SIZE

ACTUATORS

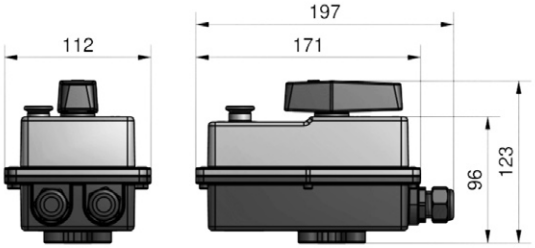
Diamant PRO ISO



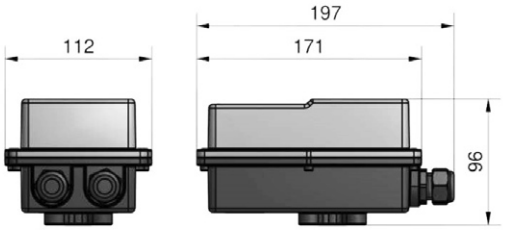
Diamant PRO ISO
version WITHOUT manual override from the top



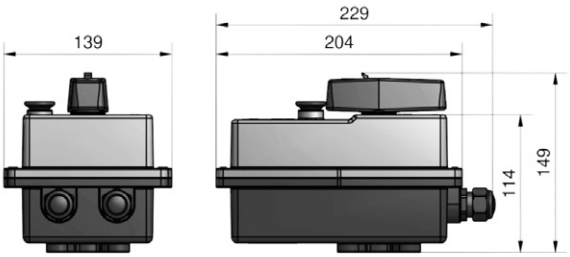
Compact PRO ISO



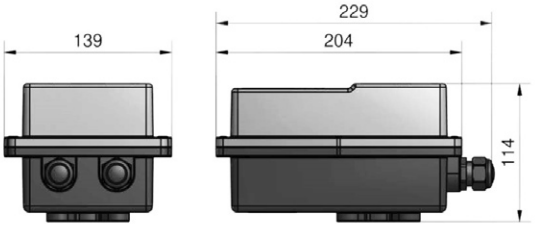
Compact PRO ISO
version WITHOUT manual override from the top



Universal PRO ISO

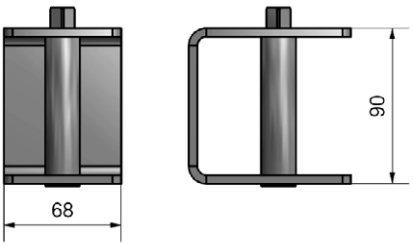


Universal PRO ISO
version WITHOUT manual override from the top



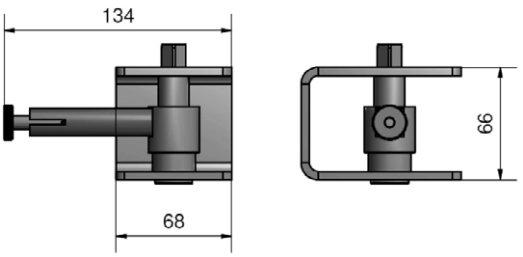
SPACERS

SPACERS FOR INSULATION



	Compact PRO	Universal PRO
Part code	DICOM35	DICOM57

Add "**D1**" to end of motorized valve code



	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 "T"- port "L"- port	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	DIAMANT PRO ISO	AVAILABLE ON DIAMANT PRO COMPARATO CONNECTION	-	-
10	3/8"	DIAMANT PRO ISO	DIAMANT PRO ISO	-	-	DIAMANT PRO ISO	DIAMANT PRO ISO		-	-
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	UNIVERSAL PRO	DIAMANT PRO ISO COMPACT PRO	COMPACT PRO	UNIVERSAL PRO	COMPACT PRO UNIVERSAL PRO
50	2"	DIAMANT PRO ISO COMPACT PRO	UNIVERSAL PRO	UNIVERSAL PRO	UNIVERSAL PRO	-	COMPACT PRO UNIVERSAL PRO	COMPACT PRO	UNIVERSAL 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**

BIM BUILDING INFORMATION MODELING

UPDATED DATA SHEETS AVAILABLE AT www.comparato.com

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