



502 VALVE WITH UM1.5 ELECTRIC ACTUATOR

Model/Ref: 270090022000



*Partnership.
Without Limits.*

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CHARACTERISTICS

The 502+UM1.5 is a 2-way brass ball valve dedicated to the automatic shut-off of non-corrosive common fluids: water, air, hydrocarbons, etc. It is a full bore ball valve. With EC and the French ACS certification, it is suitable for drinking water applications. The ISO 5211 pad allows a direct mounting of the actuator. It is perfectly suitable for an indoor or outdoor (under shelter) service.

AVAILABLE ITEMS

CW 617N brass body

Size 1/4" to 1"

BSP threaded connections

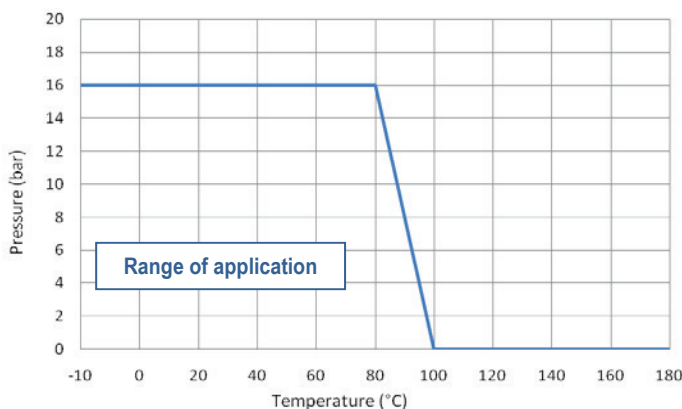
Voltage: 24 V AC and 230 V AC



1/2" to 1"

LIMITS OF USE

Max. allowable pressure (PS)	16 bar
Min./max. allowable temperature (TS)	-10 °C / +100 °C
Room temperature	-10 °C / +60 °C
Service	S4 – 30% - 10 starts/h



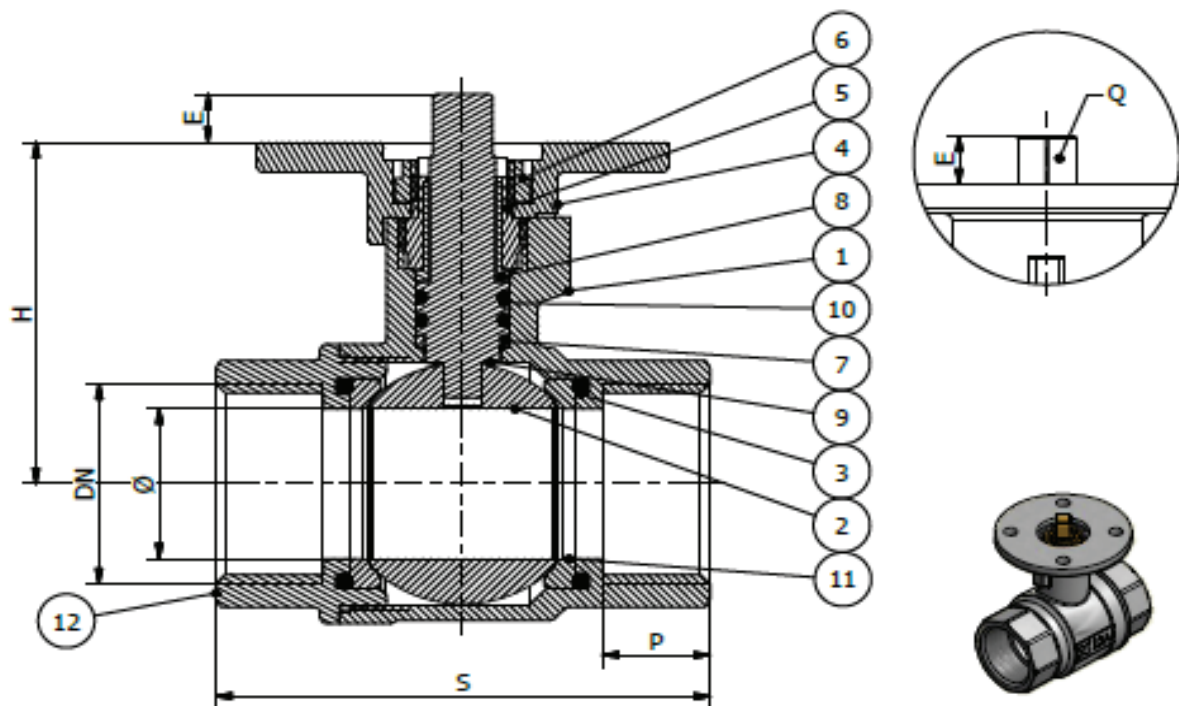
DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

	Standard		Standard
97/23/EC Pressure Equipment directive	1/4" to 1" : excluded	French Sanitary Compliance Certificate (ACS)	1/4"-3/8" : excluded
	1" 1/4 to 1" : article 3 § 3		1" 1/4 to 1" : 08 ACC LY 073
Shell design	EN 12516-4	Actuator attachments	ISO 5211
Alloy grade	EN 12240	Valve testing	EN 12266

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CONSTRUCTION

#	Item	Material	#	Item	Material
1	Body	Nickel-plated CW 617N brass	7	Anti-friction ring	PTFE
2	Ball	Chromium-plated CW 617 brass	8	Anti-friction sleeve	PTFE
3	O-ring (DN 2" ½ to 4")	NBR	9	Stem	CW 614N brass
4	Actuator pad	Nickel-plated CW 617N brass	10	O-ring	NBR / FKM
5	Nut	CW 614N brass	11	Seat	PTFE
6	Nut	CW 614N brass	12	End	Nickel-plated CW 617N brass


DIMENSIONS (mm)

DN	¼"	3/8"	½"	¾"	1"	1" ¼	1" ½	2"	2" ½	3"	4"
Ø	10	10	15	20	25	32	40	49	64	78	100
S	50	60	63.5	72	86	96	107	124	141	159	195
P	10	11	14	16	17	18	19	21	25	25	30
H	33	34	45	48.5	52.5	56.5	68	73.5	92	102	129
E	9	9	13	13	13	13	13	13	12	12	18
Q	9	9	11	11	11	11	11	11	14	14	17
ISO	F03	F03	F04-F05	F04-F05	F04-F05	F05	F05	F05	F05	F05	F07

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ACTUATION WITH UM1.5

Suggested standard UM actuation under the following conditions:

- Electric actuator with an IP 65 plastic enclosure and steel gears
- A minimum 1.3 safety factor compared with the valve nominal torque rating,
- A maximum pressure differential up/downstream of 10 bar ($=\Delta P$)

Direct mounting of the electric actuator

DN	Actuator	Power	Operating time* 230 V AC	Operating time* 24 V AC	Standard equipment of the actuator
¼"	UM1.5	4 W	28 s	28 s	2 adjustable limit switches 2 auxiliary powered switches Actuator thermal cut-out Visual position indicator Electrical connection: 1 gland pack. ½" PF + cable 300 mm
3/8"	UM1.5	4 W	28 s	28 s	
½"	UM1.5	4 W	28 s	28 s	
¾"	UM1.5	4 W	28 s	28 s	
1"	UM1.5	4 W	28 s	28 s	
1" ¼	Refer to 502 + UMA3.5 model				
1" ½					
2"					

* Unloaded operating time given for information purpose only. May vary depending on the medium

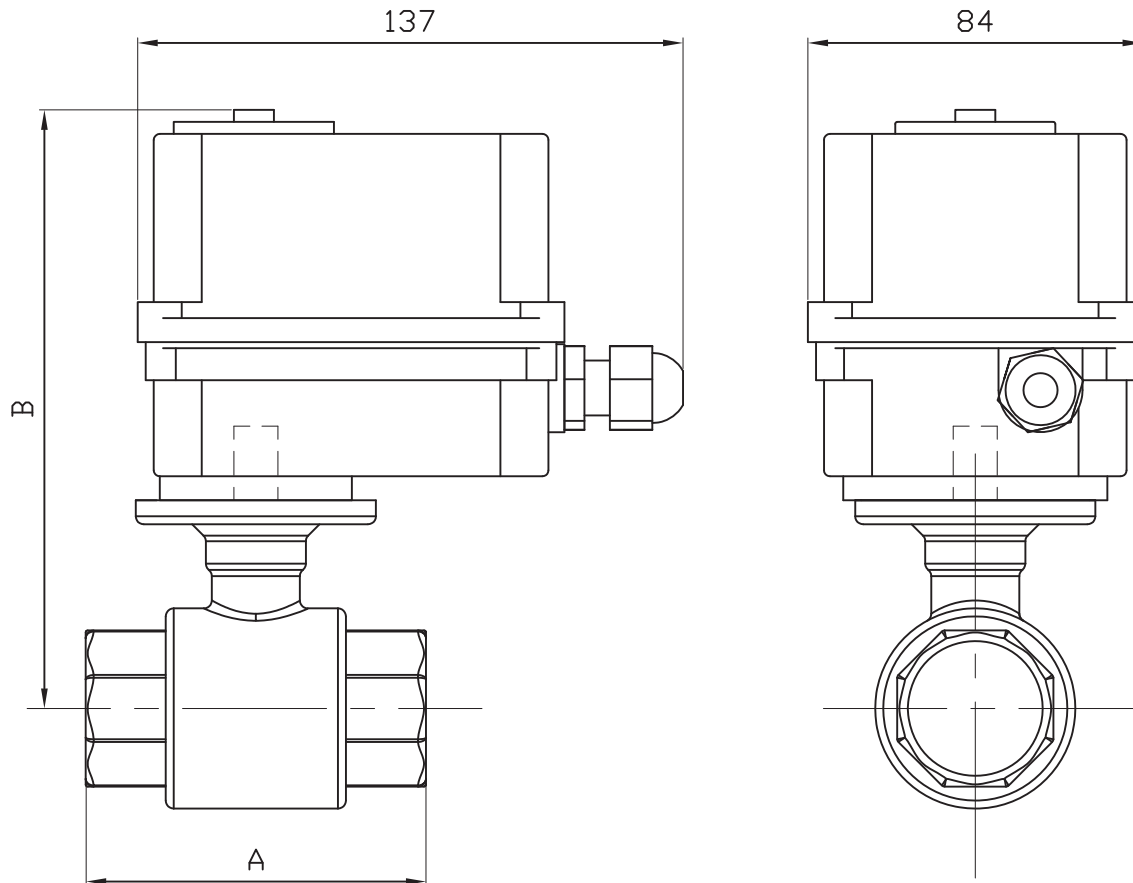
For any other working conditions, please contact us.

ACTUATION OPTION

There are many different options, please contact our commercial department.

1	100 mm stem extension for pipe insulation (see 500HC model)
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DN	1/4"	3/8"	1/2"	3/4"	1"
A	50	60	63.5	72	86
B	130.5	131.5	142.5	145.5	150
KG	1.3	1.3	1.3	1.4	1.7

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GENERAL CHARACTERISTICS

The UM1.5 electric actuator is used on ¼ turn valves. The maximum output torque is 15 Nm. Its compact construction with a plastic enclosure makes it convenient for actuation of small diameter ball valves. Protection IP 65: possible use indoor and outdoor under shelter.

AVAILABLE ITEMS

Voltage: 230 V AC and 24 V AC

IP 65



LIMITS OF USE

Protection rating	IP 65
Temperature range	-10 °C / +50 °C
Service	S4-30% - 10 starts/h

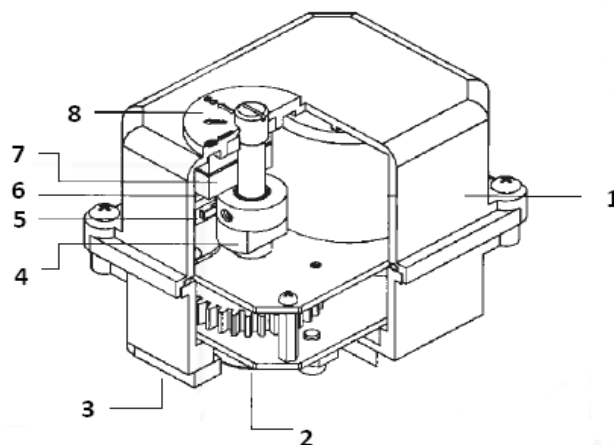
MECHANICAL CHARACTERISTICS

Gears	Treated carbon steel pinions
Torque	15 Nm
Rotation angle	90° +/- 5°
Operating time	28 s
ISO 5211 pad	F03 / F05 – star 14
Declutching	N/A
Manual override	N/A
Weight	1 kg



ELECTRICAL CHARACTERISTICS

Power	4 W
Intensity	230 V AC: 30 mA 24 V AC: 170 mA
Motor Protection rating	IP 65
Adjustable limit switches	2 adjustable switches
Auxiliary switches	2 powered switches
Anti-condensation	N/A
Electrical connection	¼" PF + 300 mm cable



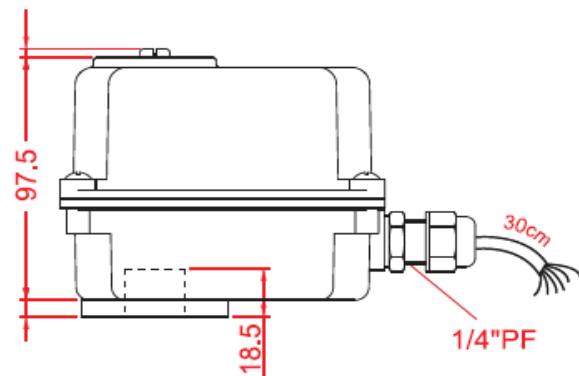
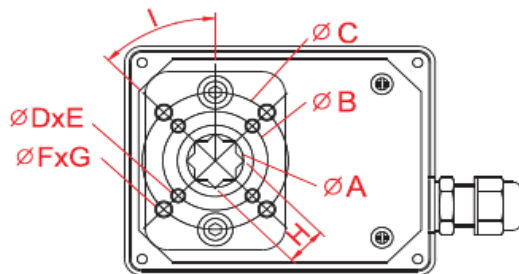
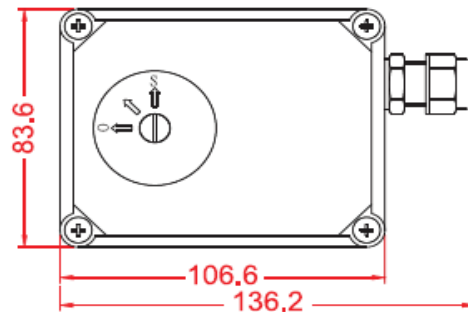
CONSTRUCTION

1	Enclosure	PA Plastic	5	Limit switch A	Steel
2	Worm gear	Treated steel	6	Limit switch B	Steel
3	ISO Pad	Steel	7	Condenser	
4	Cams	Steel	8	Position indicator	

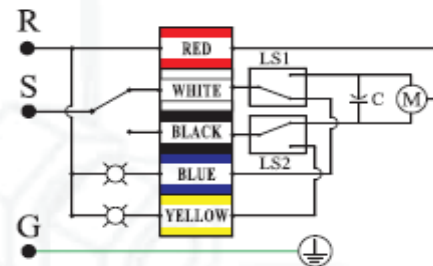
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DIMENSIONS (mm)

ØA	19	H	14
ØB	36	I	45°
ØC	50	ØDxE	M5 x 4
ISO	F03/F05	ØFxG	M6 x 4


WIRING SCHEME

Wire	Wiring
Red	Main Line
White	Open
Black	Close
Blue	Auxiliary "Open" indicator
Yellow	Auxiliary "Close" indicator


OPTION

Orange / grey: anti-condensation heater

ADJUSTMENT OF THE LIMIT SWITCHES

1. The cams are fixed on the main shaft
2. Clockwise rotation = valve will close: the switch stops the motor.
3. Anticlockwise rotation = valve will open: the switch stops the motor.

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