

# 502 VALVE WITH UM1.5 ELECTRIC ACTUATOR

## 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 1/2" to 1"

BSP threaded connections

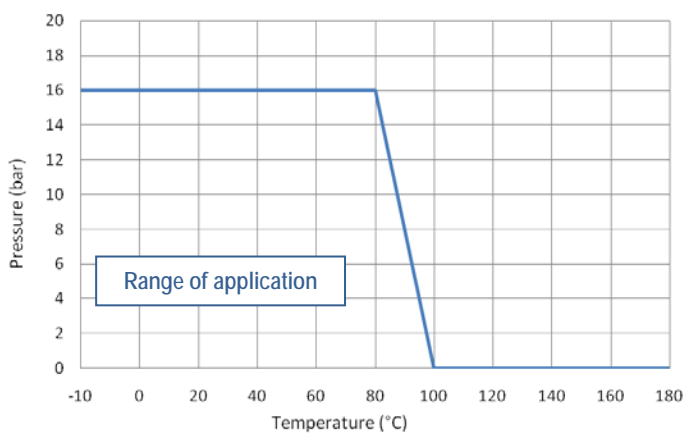
Voltage: 24 V AC and 230 V AC



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	1/2" 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

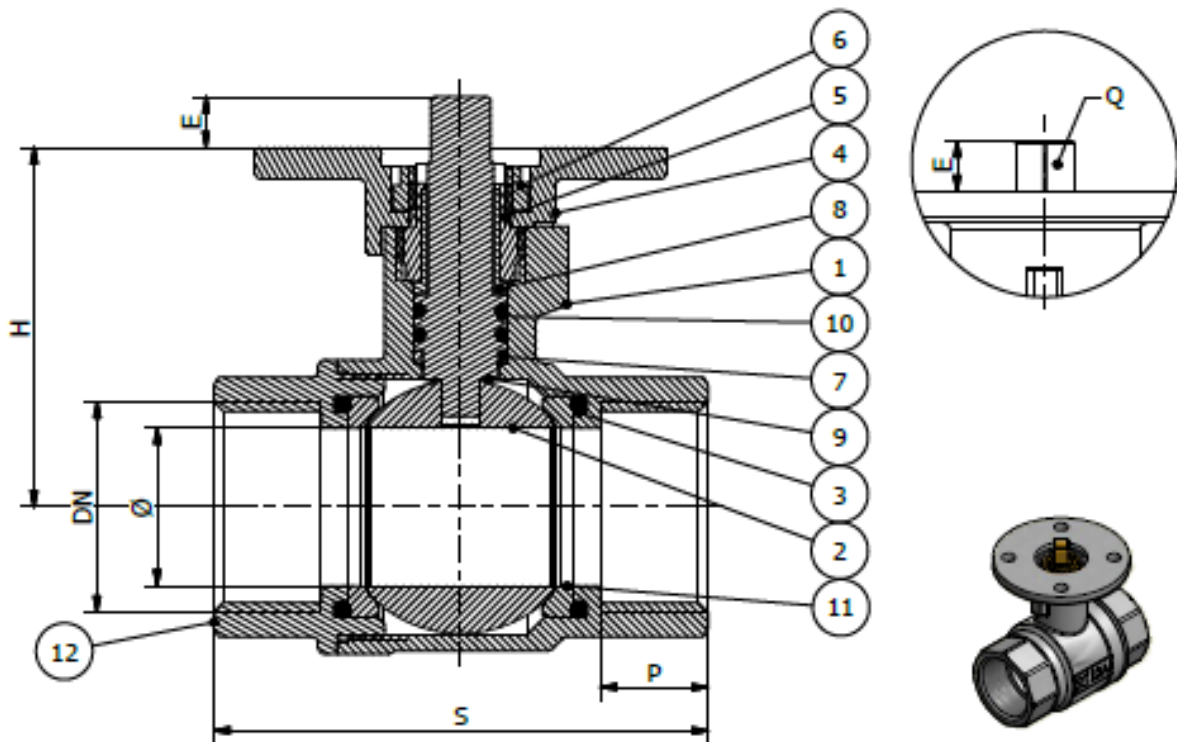
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		Rev.	3
		Date	01/2012

# 502 VALVE WITH UM1.5 ELECTRIC ACTUATOR

## 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	¾"	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.

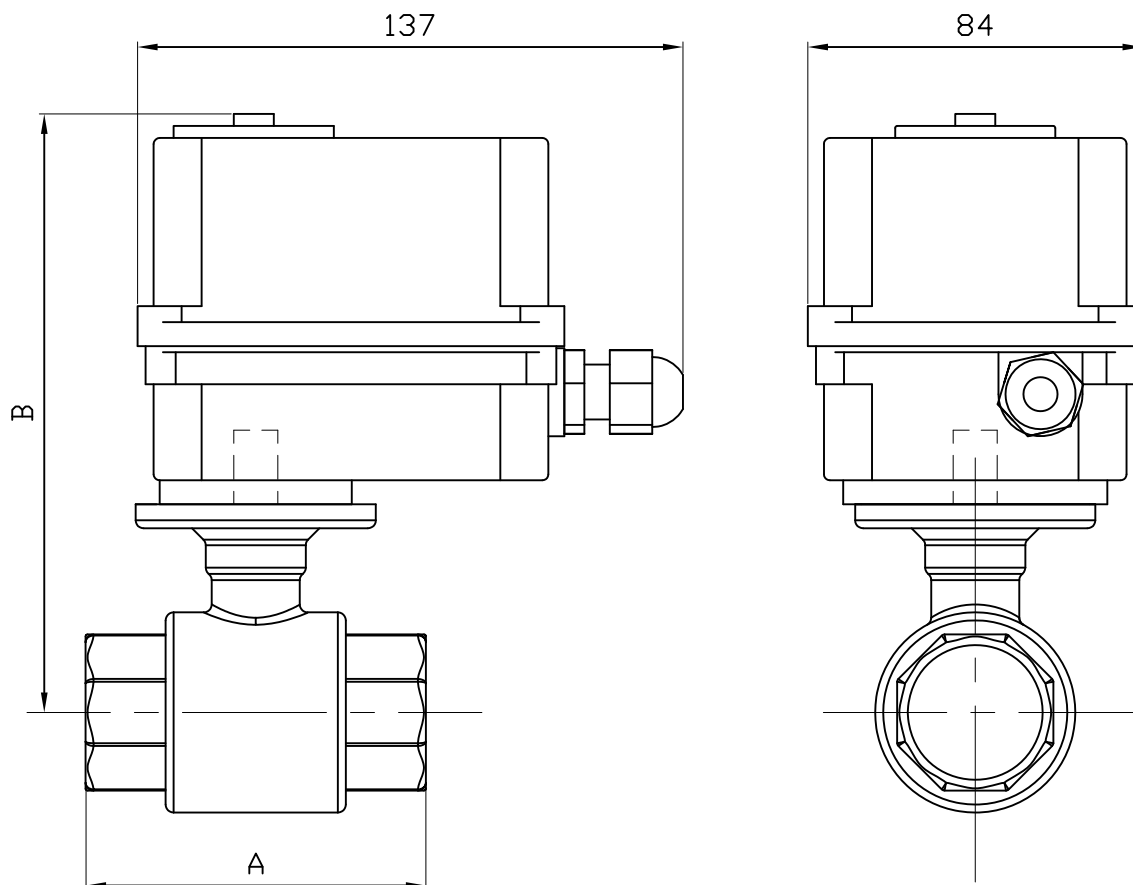
## ACTUATION OPTION

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

Informations données à titre indicatif et sous réserve de modifications éventuelles

			MAJ. COTES B - AJOUT POIDS		26/01/2012	C
			MAJ. COTES A		29/04/2010	B
			MAJ. COTES A-B		21/06/2007	A
Ech: /	Date :29/04/2005	Dessiné par : F.G.	Tolérances générales : +/- 0.2		Modifications	Date REV.
ROBINET A TOURNANT SPHERIQUE 502 + SERVOMOTEUR UM-1.5				Matière :		
				Poids (Kg) :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 671C		

# ELECTRIC ACTUATOR UM1.5

## 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

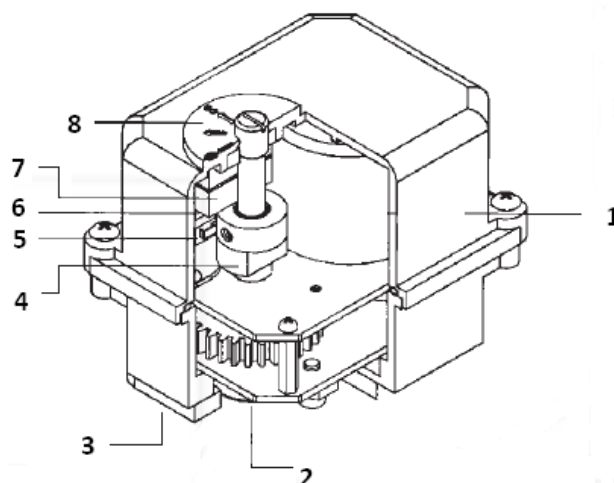
## MECHANICAL CHARACTERISTICS

Gears	Treated carbon steel pinions
Torque	15 Nm
Rotation angle	90° +/- 5°
Operating time	28 s
ISO 5211 pad	F03 / F05 – star 14
Decutching	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	

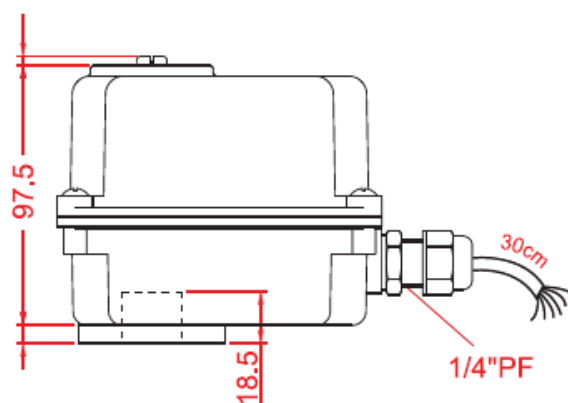
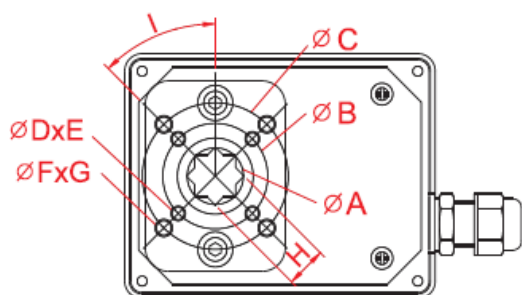
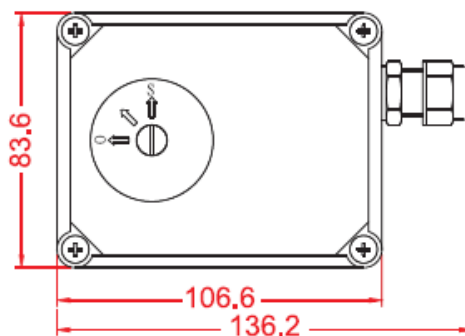
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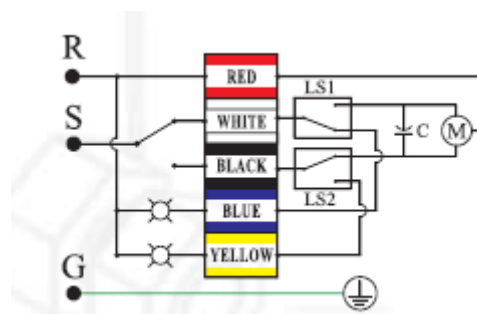
## DIMENSIONS (mm)

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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