

513-514 VALVES WITH UM ELECTRIC ACTUATOR

CHARACTERISTICS

The 513+UM L-port and 514+UM T-port stainless steel 3-way ball valves are dedicated to the mixing, diverting or automatic discharging of industrial unloaded fluids. It is a reduced 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 UM actuator. It is perfectly suitable for an indoor or outdoor (under shelter) service.

AVAILABLE ITEMS

Brass body – reduced bore

Size ¼" to 2"

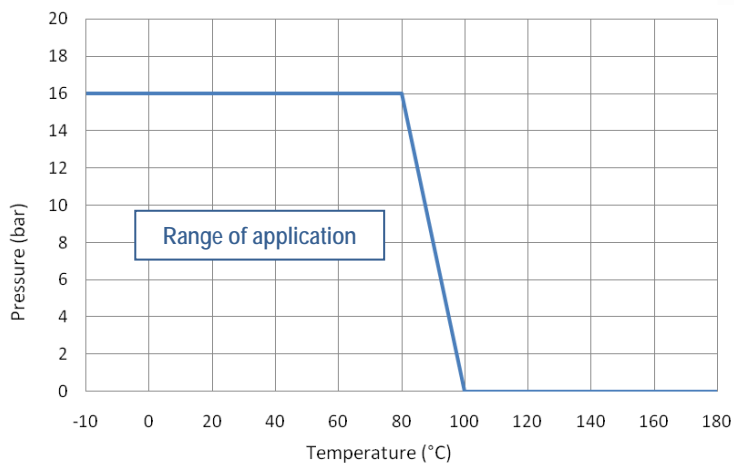
BSP connections

Voltage: 24 V DC, 24 V AC and 230 V AC



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	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	¼" to 1" : excluded		Actuator attachments	ISO 5211
	1" ¼ to 2" : category II	PASCAL#1115		
Drinking water application	ACS 08 ACC LY 074	CARSO		

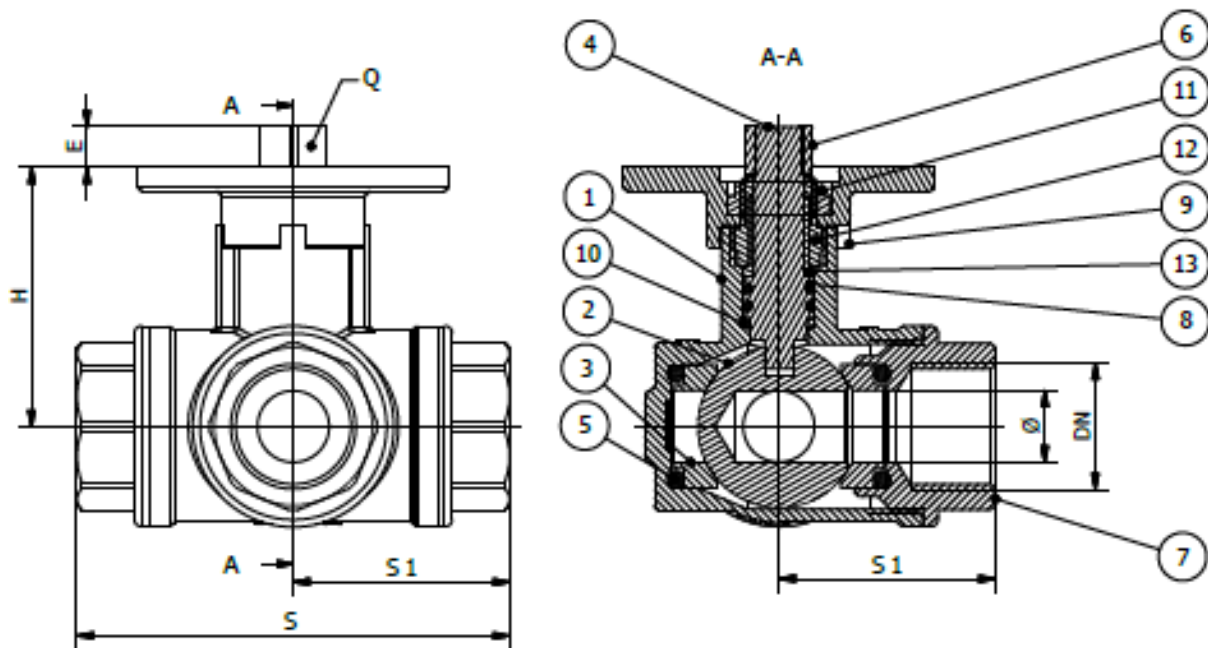
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		Ref.	513+UM GB
		Rev.	1
		Date	03/2012

513-514 VALVES WITH UM ELECTRIC ACTUATOR

CONSTRUCTION


#	Item	Material	#	Item	Material
1	Body	CW 617N brass	8	O-ring	FKM
2	Ball	CW 614N brass	9	ISO pad 5211	CW 617N brass
3	Seat	PTFE	10	Anti-friction ring	PTFE
4	Stem	CW 614N brass	11	Nut	CW 614N brass
5	O-ring	FKM	12	Nut	CW 614N brass
6	Square drive	CW 614N brass	13	Anti-friction sleeve	PTFE
7	End	CW 617N brass			



DIMENSIONS (mm)

DN	¼"	3/8"	½"	¾"	1"	1" ¼	1" ½	2"
S	76	78	82	90	106	120	142	165
S1	38	39	41	45	53	60	71	82.5
∅	10	10	10	15	20	25	32	40
P	18	18	17	18.5	20	23.5	28.5	32
H	50.5	50,5	50.5	53.5	63	67	73	80
E	8	8	8	10	10	12	12	12
Q	9	9	9	9	11	11	14	14
ISO	F03/F04	F03/F04	F03/F04	F03/F04	F04/F05	F04/F05	F05/F07	F05/F07

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ELECTRIC ACTUATION WITH UM

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 (=ΔP)

Direct mounting of the actuator

DN	Actuator	Power	Operating time* 230 V AC	Operating time* 24 V AC/DC	Standard equipment of the actuator
¼"	UMA3.5	10 W	10 s	15 s	2 adjustable limit switches 2 dry auxiliary switches Actuator thermal cut-out Manual override by key Visual position indicator Electrical connection: UMA3.5: 1 gland pack. ½" PF
3/8"	UMA3.5	10 W	10 s	15 s	
½"	UMA3.5	10 W	10 s	15 s	
¾"	UMA3.5	10 W	10 s	15 s	
1"	UMA3.5	10 W	10 s	15 s	
1" ¼	UMA3.5	10 W	10 s	15 s	
1" ½	UMA3.5	10 W	10 s	15 s	
2"	UMA3.5	10 W	10 s	15 s	<u>Optional equipment</u> Anti-condensation heater

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

For any other working conditions, please contact us.

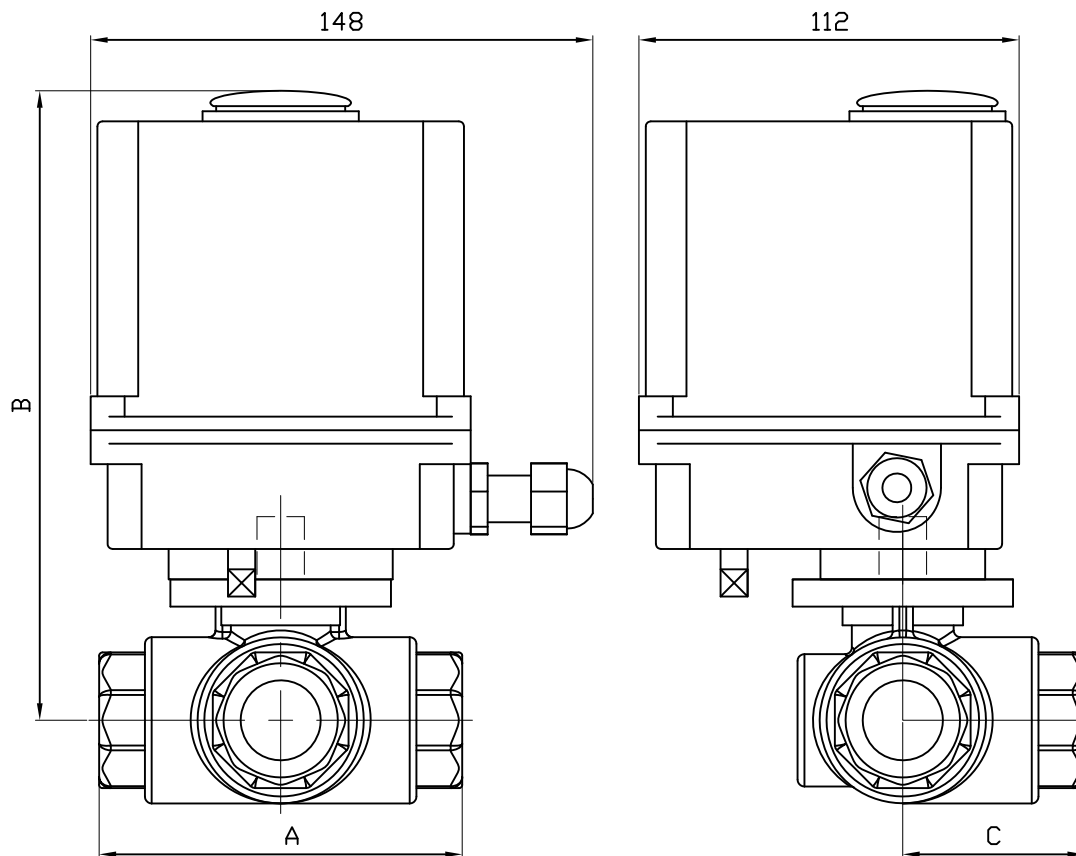
ACTUATION OPTIONS

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

1	Slow closing UML actuator (DN ¼" to 3")
2	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)
3	UV electric actuator with a declutchable manual override by handwheel
4	Anti condensation heater



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DN	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	76	78	82	90	106	120	142	165
B	194.5	194.5	194.5	197.5	207	211	217	224
C	38	39	41	45	53	60	71	82.5
KG	2.38	2.38	2.38	2.53	3.05	3.53	5.8	7.6

Informations données à titre indicatif et sous réserve de modifications éventuelles
data subject to alteration

Ech/	Date	Dessiné par	Tolérances générales	Modifications	Date	REV.
	21/04/2004	F.G.	+/- 0.2			
ROBINET A TOURNANT SPHERIQUE 513-514/BALL VALVE 513-514 + SERVOMOTEUR UMA-3.5/ELECTRIC ACTUATOR UMA-3.5				Ajout Poids-Modif.cote B 15/03/2012 A		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Matière :		
				Poids <Kg> :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 683A		

ELECTRIC ACTUATOR UMA3.5

GENERAL CHARACTERISTICS

The UMA3.5 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 on small diameter ball valves and butterfly valves. Protection IP 65: possible use indoor and outdoor under shelter.

IP 65



AVAILABLE ITEMS

Voltage: 230 V AC, 24 V AC and 24 V DC

LIMITS OF USE

Protection rating	IP 65
Temperature range	-10 °C / +55 °C
Service	S4-30%

MECHANICAL CHARACTERISTICS

Gears	Treated steel pinions
Torque	35 Nm
Rotation angle	90° +/- 5°
Declutching	Switch
Manual override	Allen key

Electric actuator	UMA3.5			UML3.5
Voltage	230 V AC	24 V AC	24 V DC	230 V AC
Operating time	12 s	15 s	16 s	40 s
ISO 5211 pad	F03/F05 – star 14			



ELECTRICAL CHARACTERISTICS

Motor protection	Thermal cut-out
Adjustable limit switches	2 adjustable switches
Auxiliary switches	2 adjustable dry switches
Anti-condensation	Optional
Electrical connection	2 gland packs. ½" PF

Electric actuator	UMA3.5			UML3.5
Voltage	230 V AC	24 V AC	24 V DC	230 V AC
Power	10 W	3 W	3 W	10 W
Intensity	0.25 A	0.15 A	0.15 A	0.25 A

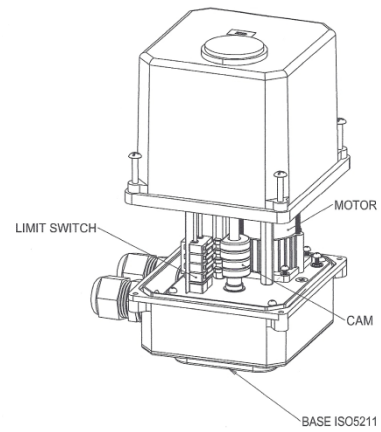
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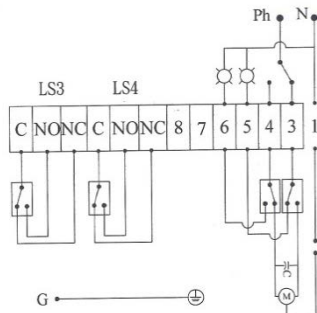
ELECTRIC ACTUATOR UMA3.5

CONSTRUCTION

Enclosure	PA 66 Plastic
Cover	PA 66 Plastic
Gears	Treated steel
Output	Star drive nut
Adjustable cams	Steel
Position indicator	Plexiglas®

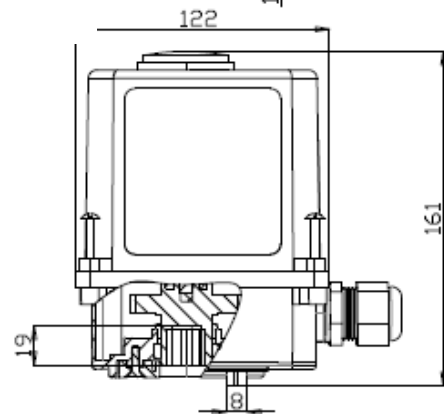
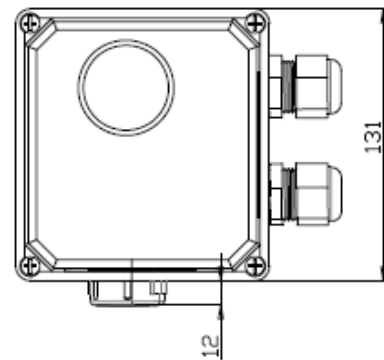


WIRING SCHEME 230 V AC

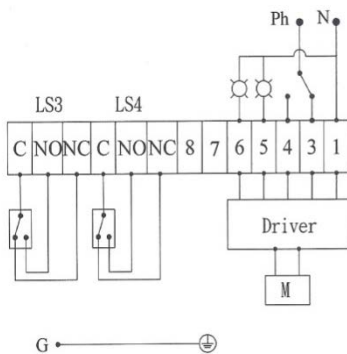


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

DIMENSIONS (mm)

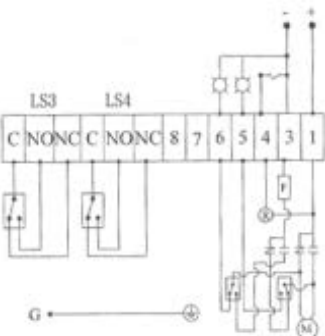


WIRING SCHEME 24 V AC

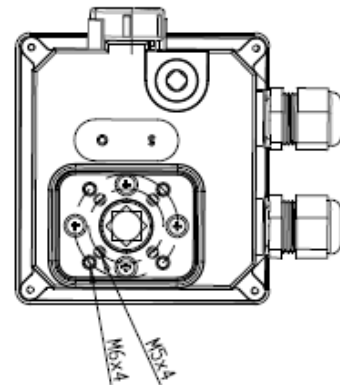


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

WIRING SCHEME 24 V DC



- Wire 1 with +
 - Wire 3 with -
 - Bridge between 3 and 4 Opening
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact



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