



505-507 VALVES WITH UM ELECTRIC ACTUATOR

Model/Ref: 270222022060



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Without Limits.*

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505-507 VALVES WITH UM ELECTRIC ACTUATOR

CHARACTERISTICS

The 505+UM and 507+UM cast iron ball valves are dedicated to the automatic opening/shut-off of pipes carrying low pressure unloaded common fluids. The 505-507 full bore split body ball valve has the 97/23/EC certification. The 505 valve complies with the NF 29323 face-to-face standards and the 507 valve complies with the DIN 3202 F4/F5 face-to-face standards. 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

505: Face to face according to NF 29-323 F18 standards for DN 40 to 80

507: Face to face according to DIN 3202 F4/F5 standards for DN 15 to 80

Flanged connections RF PN10/16

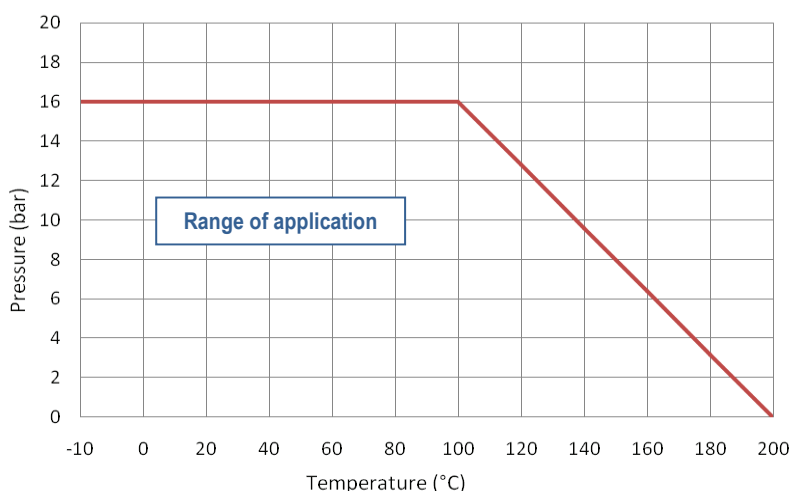
Voltage: 24 V DC, 24 V AC and 230 V AC

IP 65



LIMITS OF USE

Max. allowable pressure (PS)	16 bar (20 °C)
Min./max. allowable temperature (TS)	-10 °C / +200 °C
Prohibited use	Steam, compressed air and gases
Room temperature	-10 °C / +50 °C
Service	S4 - 30% - 10 starts/h

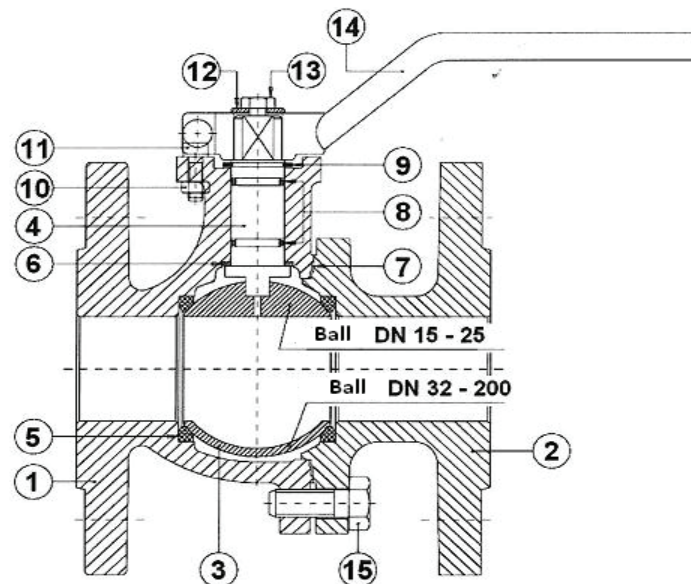


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505-507 VALVES WITH UM ELECTRIC ACTUATOR

DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

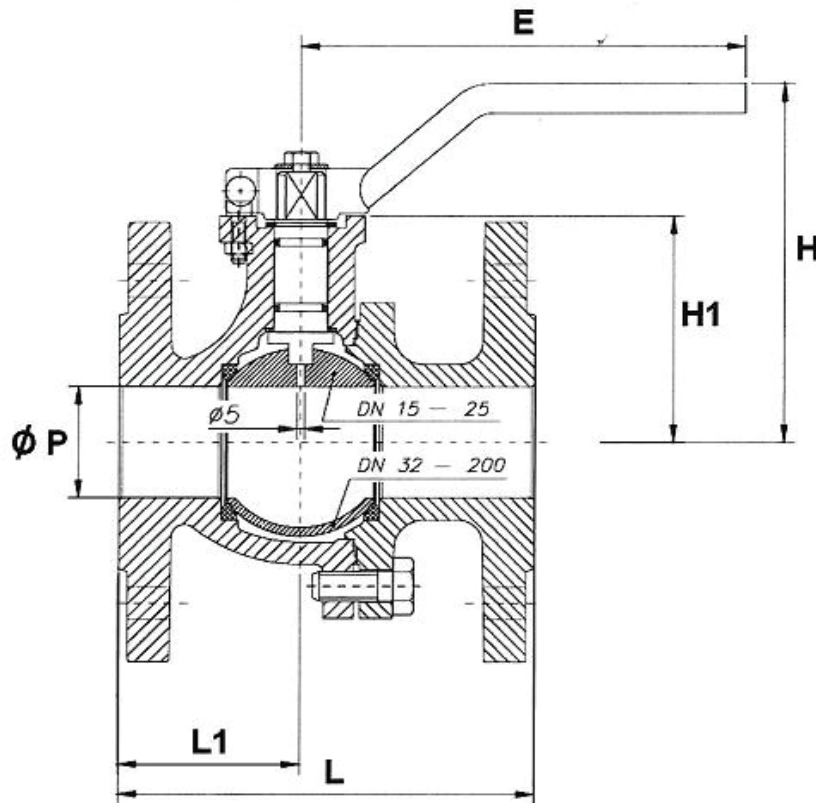
	Standard		Standard
97/23/EC Pressure Equipment Directive	DN 15 and 25 : excluded	Final testing	EN 12266-1
	DN 32 to 200 : category I	Face-to-face dimension 505	NF 29-323
Conception	DIN 3357	Face-to-face dimension 507	EN 558-1 series 27 DIN 3202 F4/F5
Shell design	DIN 3840	Marking code	EN 19
Flanges dimension	EN 1092-2	Actuator attachments	ISO 5211



CONSTRUCTION

#	Item	Material	#	Item	Material
1	Body	EN GJL-250 Cast Iron	8	O ring	FKM
2	End	EN GJL-250 Cast Iron	9	Washer	DIN 471 steel
3	Ball DN 15-25	SS 303 Stainless steel	10	Nut	DIN 934-8 steel
3	Ball DN 32-200	SS 304 Stainless steel	11	Screw	DIN 912- 8.8 steel
4	Stem	SS 304 Stainless steel	12	Washer	Zinc plated steel
5	Seat	PTFE	13	Screw	DIN 935 5.6
6	Friction ring	PTFE	14	Handle	Steel
7	Body gasket	PTFE	15	Screw	DIN 933 5.6

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DIMENSIONS (mm)


DN	15	20	25	32	40	50	65	80	100	125	150	200
Ø P	13	17	24	31	38	50	65	80	100	125	150	200
L (505)	/	/	/	/	136	142	154	160	172	186	200	/
L (507)	115	120	125	130	140	150	170	180	190	200	210	400
L1	49	55.5	51.5	53	61	62	81.5	79	94	120.5	155	190
H	92	95.5	102.2	114.7	119	127	141	151.5	176.5	208	254.2	293.5
H1	48.5	53	59.5	72	77	85	98	108.5	134	165	190	229
E	170	170	170	170	302.5	302.5	224	335	350	350	500	500
Weight (kg)	2.12	2.72	3.62	5.32	6.90	9.00	11.7	14.7	20.2	33.8	49.8	81.8

FLOW FACTOR Kv (m³/h)

DN	15	20	25	32	40	50	65	80	100	125	150	200
Kv	37.4	74.8	105	176	223	416	660	1200	1980	3600	5040	10890

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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)

Electric actuator mounted with stainless steel bracket and coupler according to the EN 15081 standard

DN	Actuator	Power	Operating time 230 V AC	Operating time 24 V AC/DC	Standard equipment of the actuator
15	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 UMC10: 2 gland packs. ½" PF
20	UMA3.5	10 W	10 s	15 s	
25	UMA3.5	10 W	10 s	15 s	
32	UMA3.5	10 W	10 s	15 s	
40	UMA3.5	10 W	10 s	15 s	
50	UMC10	25 W	8 s	N/A	
65	UMC10	25 W	8 s	N/A	Optional equipment Anti-condensation heater
80	UMC10	25 W	8 s	N/A	

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

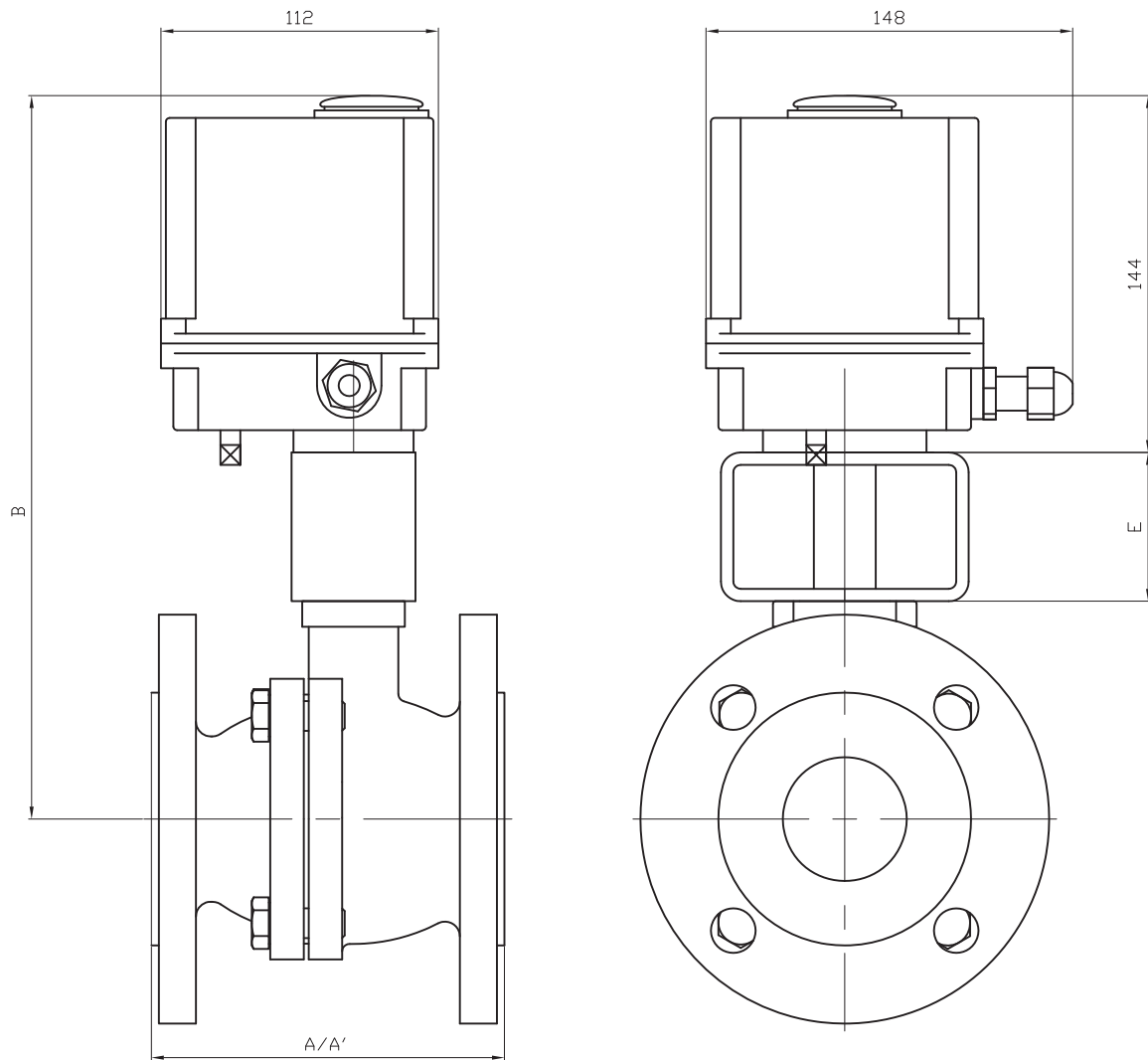
For any other working conditions, please contact us.

ACTUATION OPTIONS

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

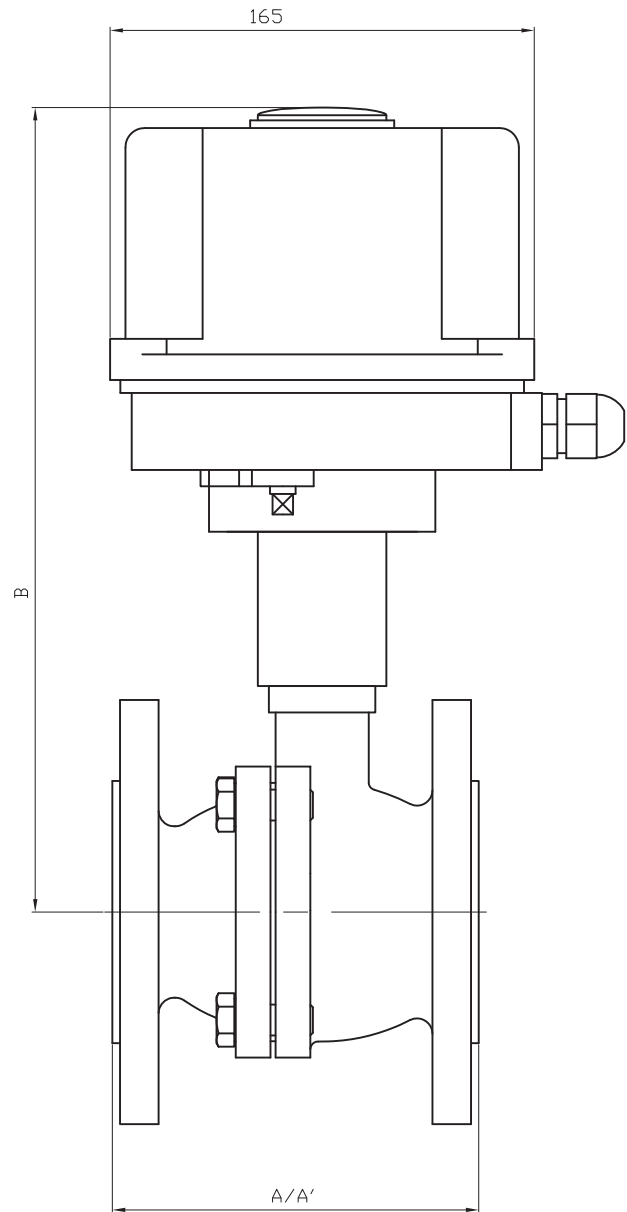
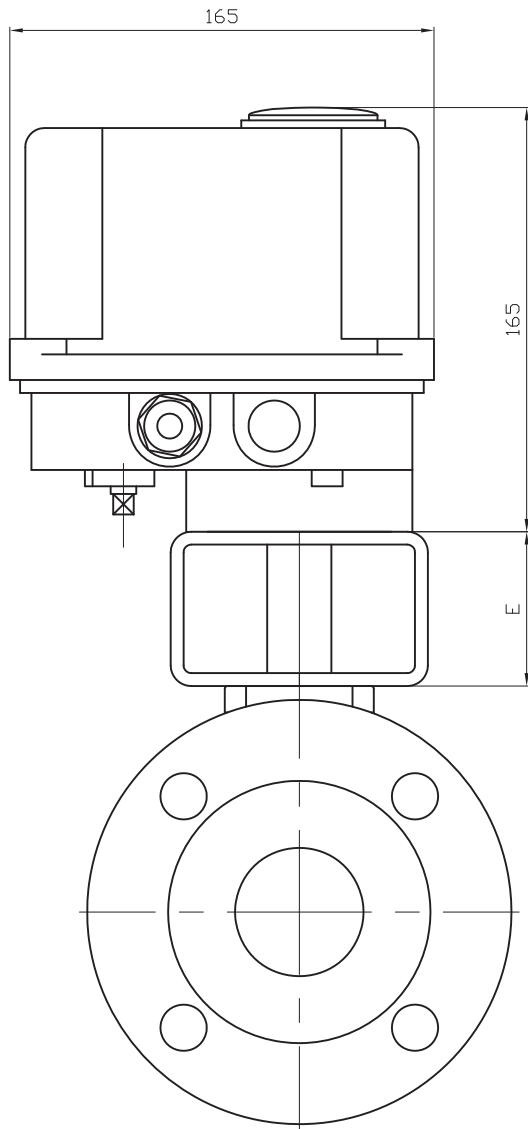
1	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)
2	UV electric actuator with a declutchable manual override by handwheel
3	Anti condensation heater

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DN	15	20	25	32	40
A(505)	/	/	/	/	136
A'(507)	115	120	125	130	140
B	252.5	257	263.5	276	281
E	60	60	60	60	60

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505-507 VALVES WITH UM ELECTRIC ACTUATOR


DN	50	65	80
A(505)	142	154	160
A'(507)	150	170	180
B	310	323	333.5
E	60	60	60

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505-507 VALVES WITH UM ELECTRIC ACTUATOR

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

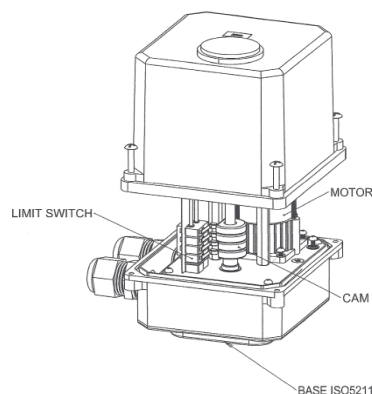
Electric actuator	UMA3.5			UML3.5
Voltage	230 V AC	24 V AC	24 V DC	230 V AC
Power	10 W	3 W	3 W	10 W
Intensity	0.25 A	0.15 A	0.15 A	0.25 A

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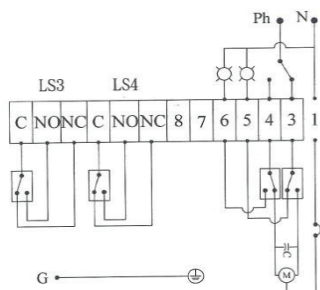
505-507 VALVES WITH UM ELECTRIC ACTUATOR

CONSTRUCTION

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

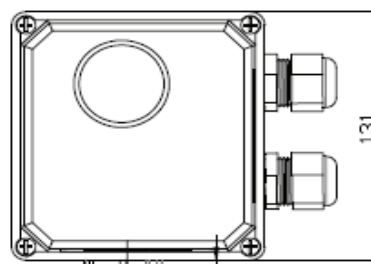


WIRING SCHEME 230 V AC

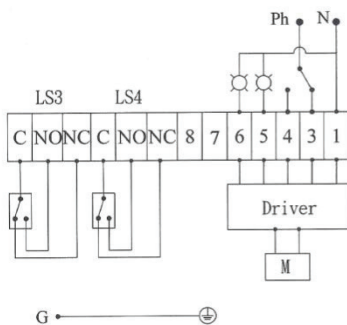


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

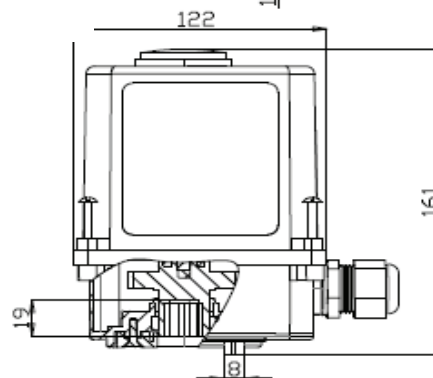
DIMENSIONS (mm)



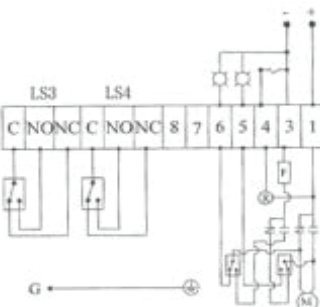
WIRING SCHEME 24 V AC



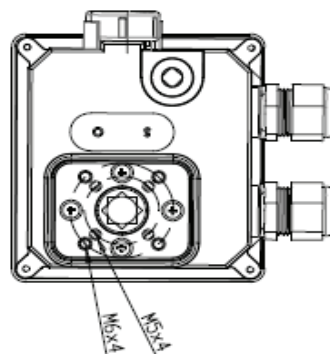
- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact



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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GENERAL CHARACTERISTICS

The UMC and UMCL electric actuators are generally used on ¼ turn valves. The maximum output torque is between 100 Nm and 150 Nm. Its compact construction with a plastic enclosure makes it convenient for the actuation of small diameter ball valves and butterfly valves. Protection IP 65: possible use indoor and outdoor under shelter.

AVAILABLE ITEMS

100 Nm and 150 Nm torque
Voltage: 230 V AC, 24 V AC and 24 V DC




LIMITS OF USE

Protection rating	IP 65
Temperature range	-10 °C / +60 °C
Service	S4 - 30%

MECHANICAL CHARACTERISTICS

Gears	Treated steel pinions
Rotation angle	90° +/- 5°
Declutching	N/A
Manual override	Allen key (except for UML version)

Electric actuator	UMC10	UMC15			UMC15L
Voltage	230 V AC	230 V AC	24 V AC	24 V DC	230 V AC
Torque	100 Nm	150 Nm			
Operating time	8 s	8 s	8 s	8 s	45 s
ISO 5211 pad	F07 – star 17				



ELECTRICAL CHARACTERISTICS

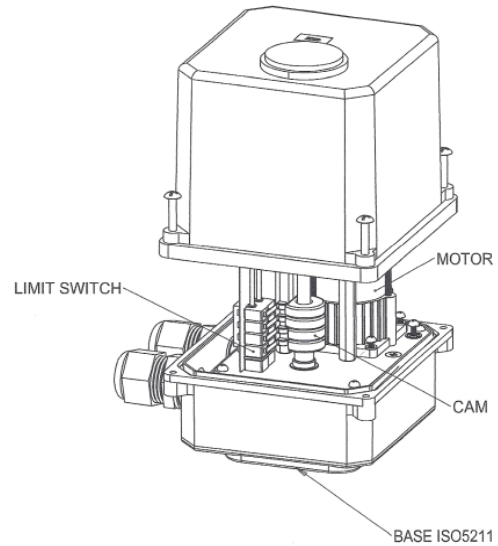
Motor protection	Thermal cut-out
Adjustable limit switches	2 adjustable switches
Auxiliary switches	2 dry adjustable switches
Anti-condensation	Optional
Electrical connection	2 gland packs ½" PF

Electric actuator	UMC10	UMC15			UMC15L
Voltage	230 V AC	230 V AC	24 V AC	24 V DC	230 V AC
Power	25 W	25 W	25 W	25 W	25 W
Intensity	0.42 A	0.42 A	0.5 A	0.5 A	0.42 A

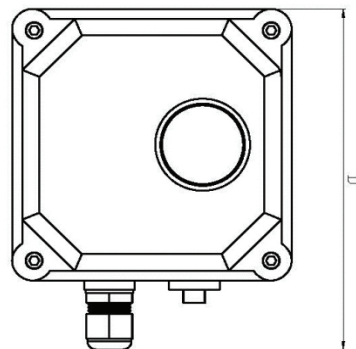
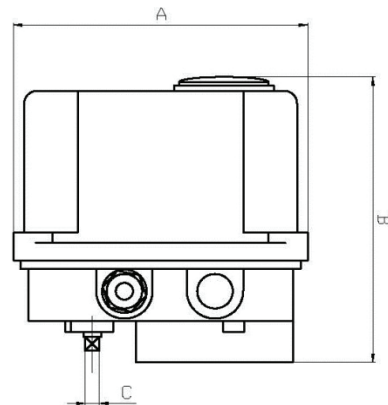
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505-507 VALVES WITH UM ELECTRIC ACTUATOR
CONSTRUCTION

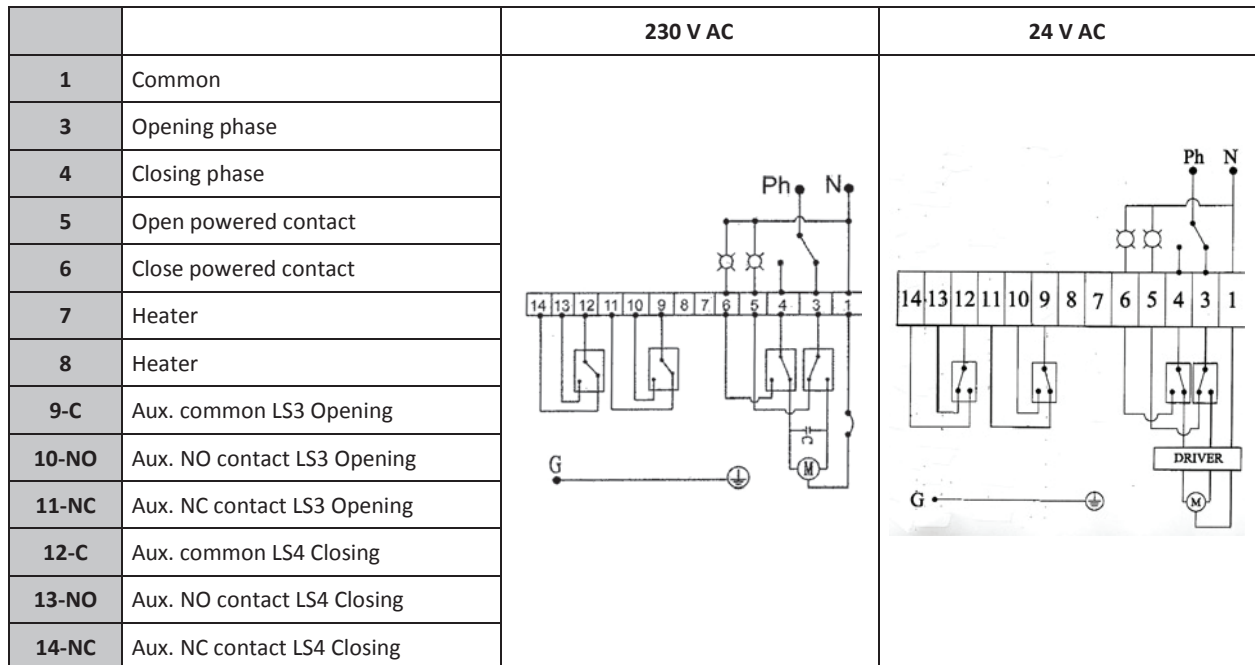
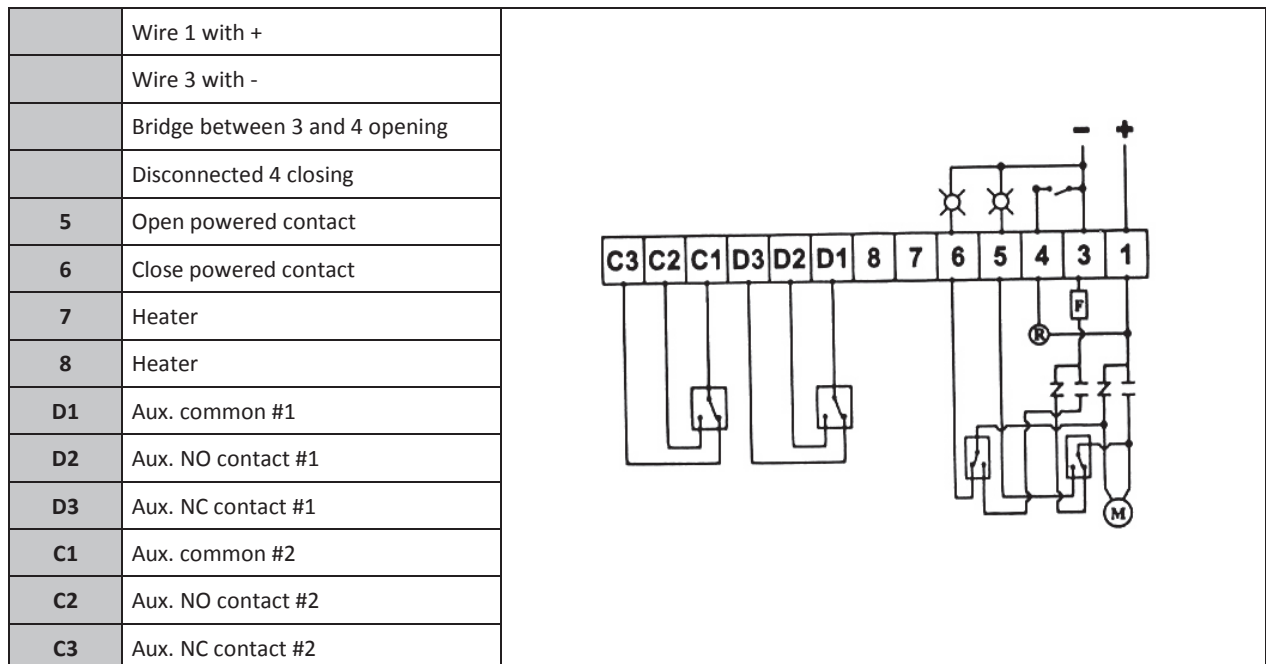
Enclosure	PA66 Plastic
Cover	PA66 Plastic
Gears	Treated steel
Output	Star drive nut
Adjustable cams	Steel
Position indicator	Plexiglas®


DIMENSIONS (mm)

A	165
B	165
C	8
D	200



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505-507 VALVES WITH UM ELECTRIC ACTUATOR
WIRING SCHEME 230 V AC AND 24 V AC

WIRING SCHEME 24 V DC


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