505-507 VALVES WITH UV ELECTRIC ACTUATOR

CHARACTERISTICS

The 505+UV and 507+UV 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

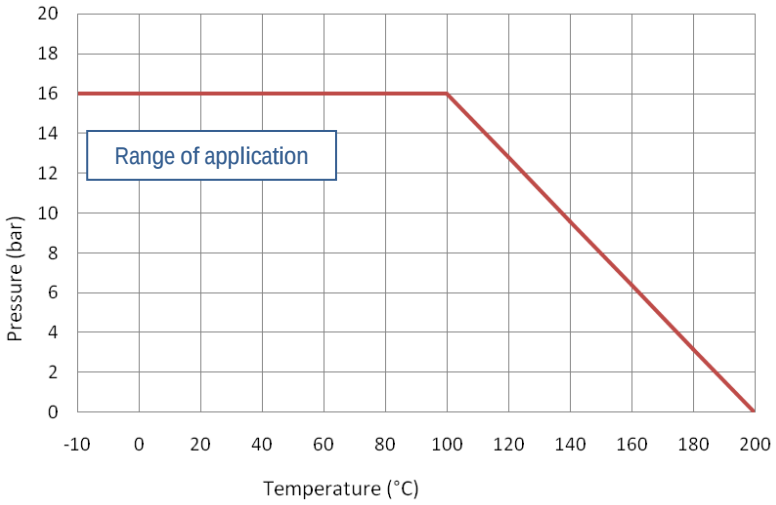
IP 65

CE

505: Face to face according to NF 29-323 F18 standard for DN 50 to 150
507: Face to face according to DIN 3202 F4/F5 standard for DN
50 to 200 (DN 125 and 150 that are not included in this standard
with their threaded bolt holes)
Flanged connections RF PN10/16
Voltage: 24 V DC, 24 V AC and 230 V AC

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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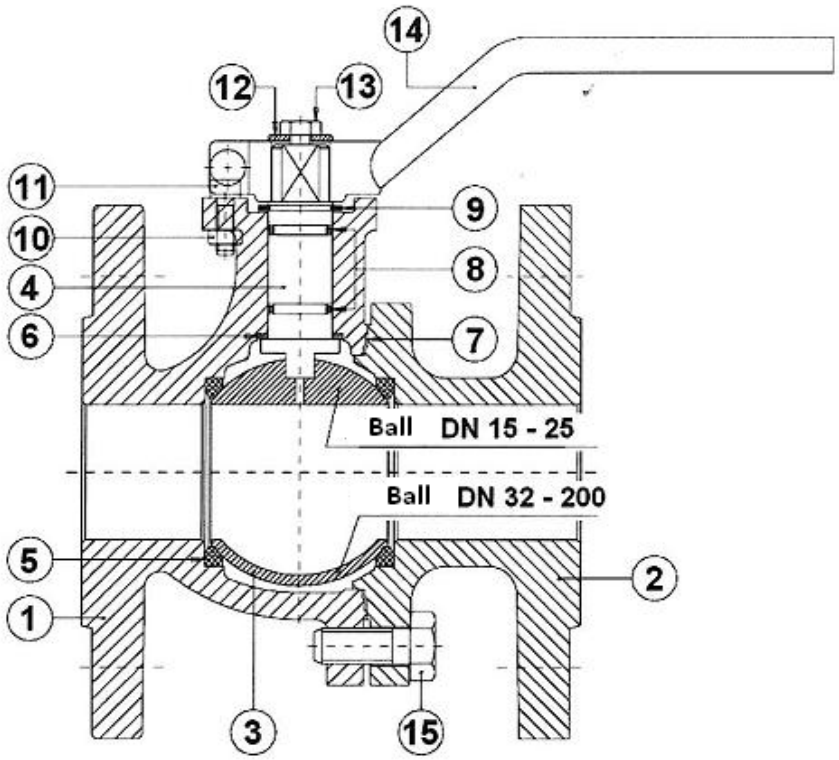
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Rev.	0
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505-507 VALVES WITH UV ELECTRIC ACTUATOR

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

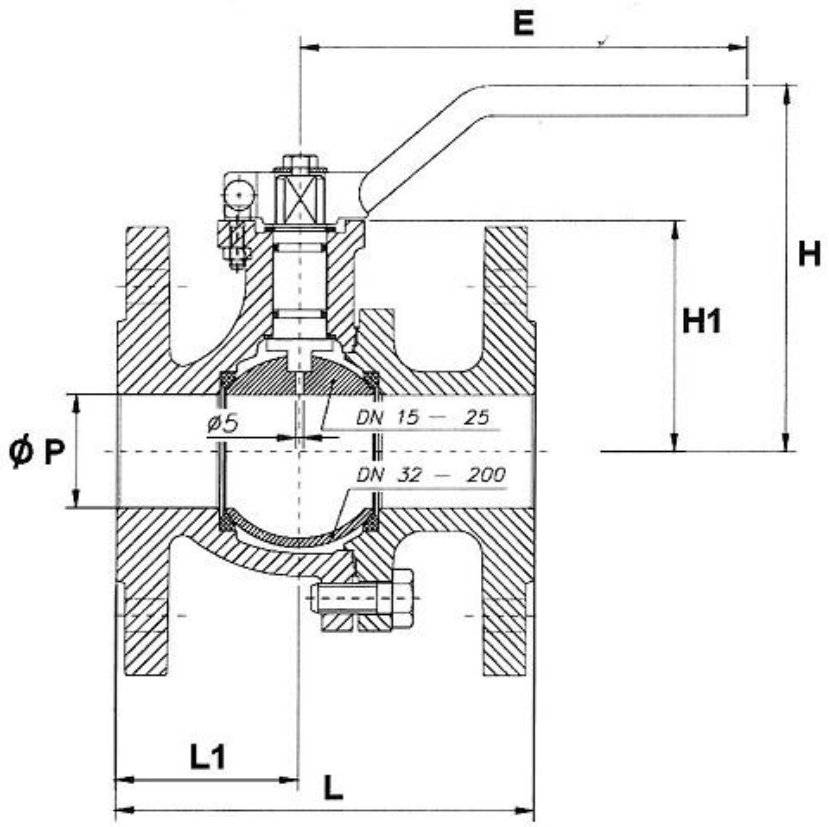
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505-507 VALVES WITH UV ELECTRIC ACTUATOR

DIMENSIONS (mm)



DN	15	20	25	32	40	50	65	80	100	125	150	200
Φ 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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505-507 VALVES WITH UV ELECTRIC ACTUATOR

ACTUATION WITH UV

Suggested standard UV 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
40	Refer to 505-507 + UM				2 adjustable limit switches 2 dry auxiliary switches Actuator thermal cut-out Manual override by handwheel Visual position indicator Electrical connection: 2 gland packs. ½'' PF **Optional equipment** Anti-condensation heater
50	UVC15	25 W	8 s	8 s	
65	UVC15	25 W	8 s	8 s	
80	UVC15	25 W	8 s	8 s	
100	UVD25	25 W	20 s	20 s	
125	UVD25	25 W	20 s	20 s	
150	UVF50	40 W	30 s	30 s	
200	UVG60	40 W	30 s	30 s	

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

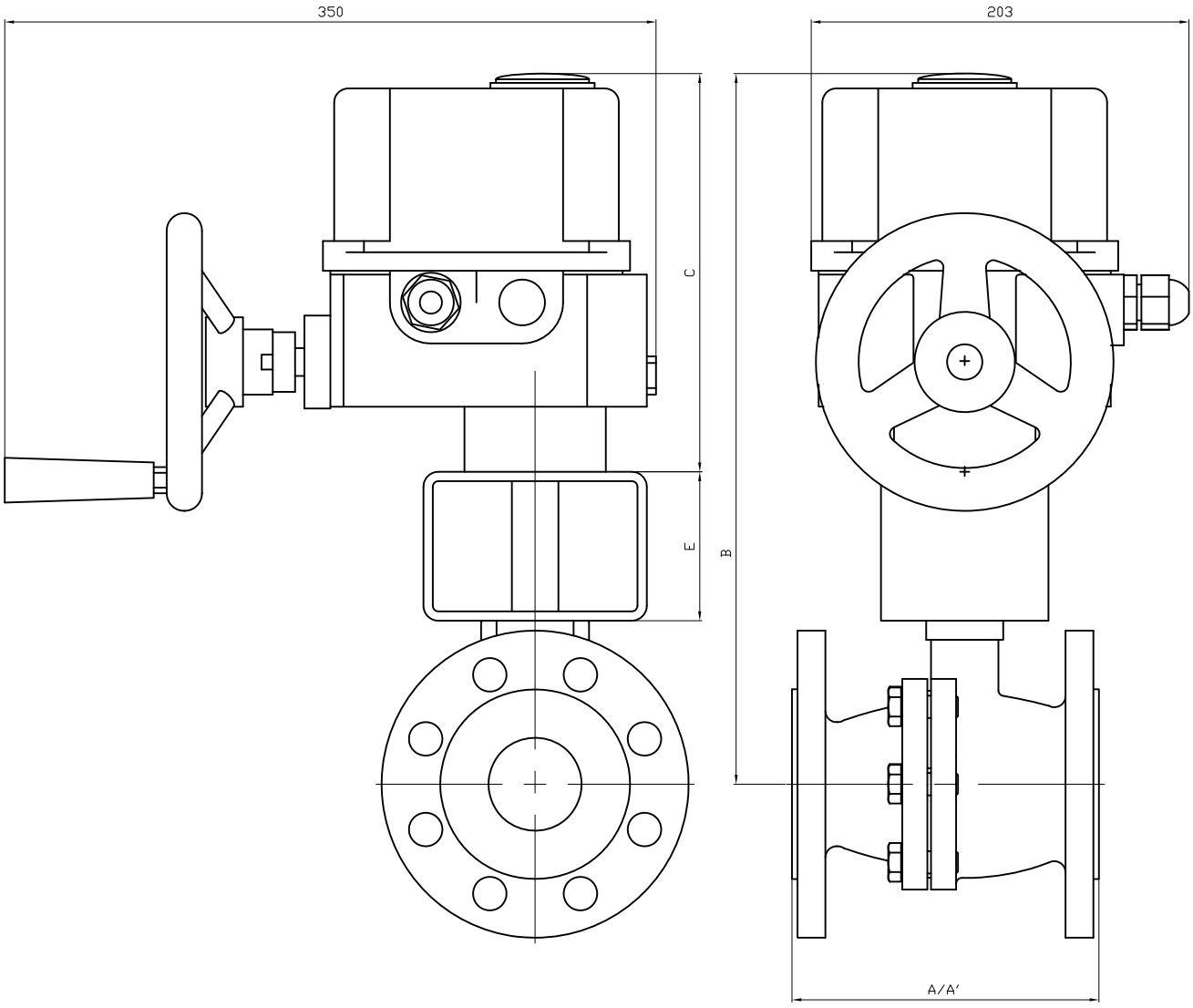
For any other working conditions, please contact us.

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	Anti condensation heater

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DN	50	65	80	100	125	150	200
TYPE	UVC15	UVC15	UVC15	UVD25	UVD25	UVF50	UVG60
A(505)	142	154	160	172	186	200	/
A'(507)	150	170	180	190	200	210	400
B	360	373	383.5	454	485	542	581
C	215	215	215	240	240	272	272
E	60	60	60	80	80	80	80

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech: /	Date :23/02/2011	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 505-507 + SERVOMOTEURS UV				Matière :		
				Poids (Kg) :		
SECTORIEL 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 1082		

ELECTRIC ACTUATOR UV

GENERAL CHARACTERISTICS

The UV electric actuators are generally used on ¼ turn valves. The maximum output torque is between 150 Nm and 600 Nm. Its compact construction with an aluminium alloy enclosure and a plastic cover makes it convenient for the actuation of ball valves and butterfly valves. The UV electric actuators are equipped with a manual override activated by handwheel. Protection IP 65: possible use indoor and outdoor under shelter.

AVAILABLE ITEMS

IP 65 CE

Torque: 150 Nm, 250 Nm, 490 Nm and 600 Nm
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% - 10 starts/h

MECHANICAL CHARACTERISTICS

Gears	Treated steel pinions
Rotation angle	90° +/- 5°
Declutching	N/A
Manual override	Handwheel

Electric actuator	UVC15		UVD25			UVF50	UVG60
Voltage	230 V AC	24 V AC	230 V AC	24 V AC	24 V DC	230 V AC	230 V AC
Torque	150 Nm		250 Nm			490 Nm	600 Nm
Operating time	8 s		20 s			30 s	30 s
ISO 5211 pad	F07		F07/F10			F10/F12	F10/F12
Star drive nut	17		22			27	27

ELECTRICAL CHARACTERISTICS

Motor protection	Thermal cut-out	**Anti-condensation**	Optional, 2 W heater
Limit switch	2 adjustable switches	**Electrical connection**	2 gland packs. ½'' PF
Auxiliary switch	2 adjustable dry switches, cutting capacity: 3 A @ 230 V AC / 0.3 A @ 250 V DC		

Electric actuator	UVC15		UVD25			UVF50	UVG60
Voltage	230 V AC	24 V AC	230 V AC	24 V AC	24 V DC	230 V AC	230 V AC
Power	25 W	30 W	25 W	30 W	30 W	40 W	60 W
Intensity	0.42 A	0.5 A	0.42 A	0.5 A	0.5 A	0.58 A	0.66 A

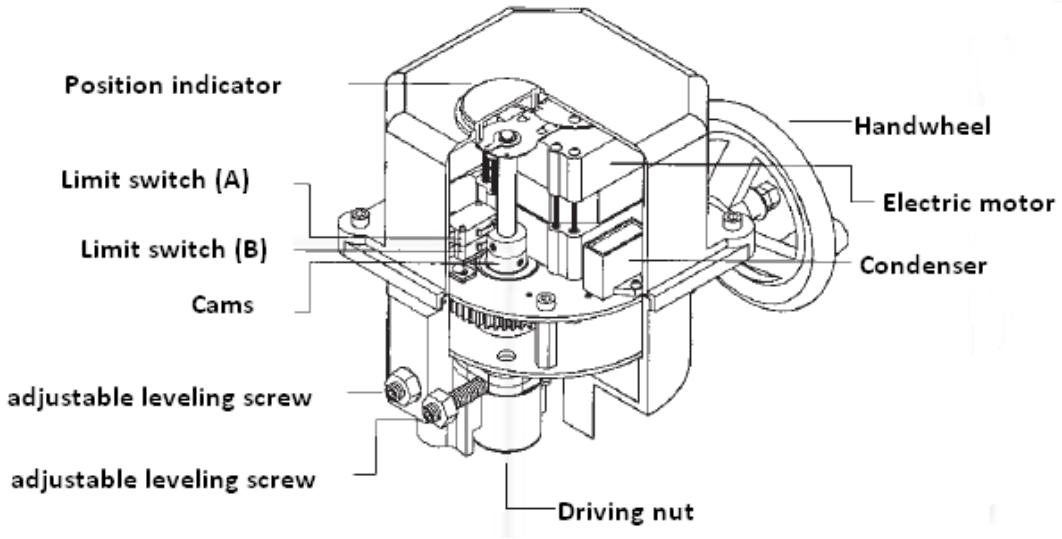
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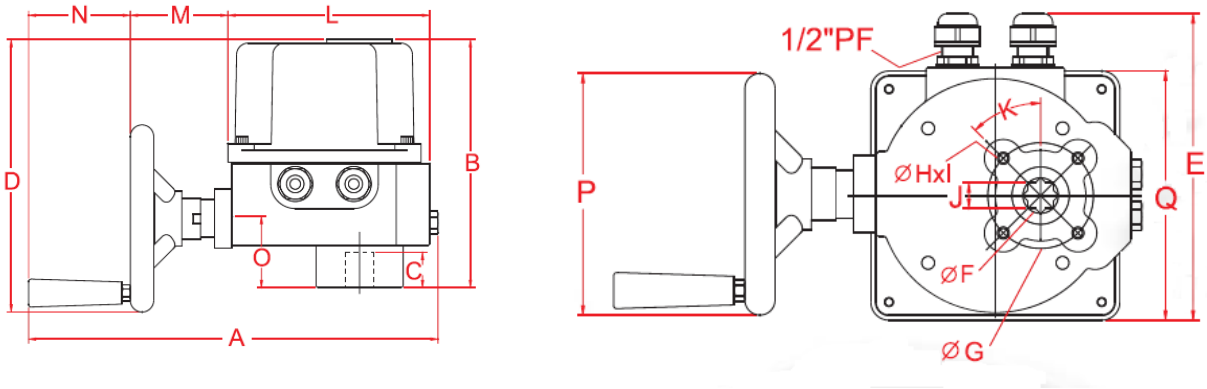
ELECTRIC ACTUATOR UV

CONSTRUCTION

Enclosure	Aluminium alloy	**Cams**	Treated steel
Cover	PA66 plastic	**Drive nut**	Steel
Worm gear	Treated steel	**Position indicator**	Plexiglas®
Handwheel	Steel		



DIMENSIONS (mm)



Dimension	A	B	C	D	E	G	J	L	M	N	O	P	Q
UVC15	350	215	30	236	203	70	17	173	84	87	59	160	165
UVD25	350	240*	30	235	203	102	22	173	84	87	85	160	165
UVF50	350	272	34	260	203	125	27	173	84	87	92	200	165
UVG60	350	272	34	260	203	125	27	173	84	87	92	200	165

* This dimension is 266 mm for the 24 V AC/DC version.

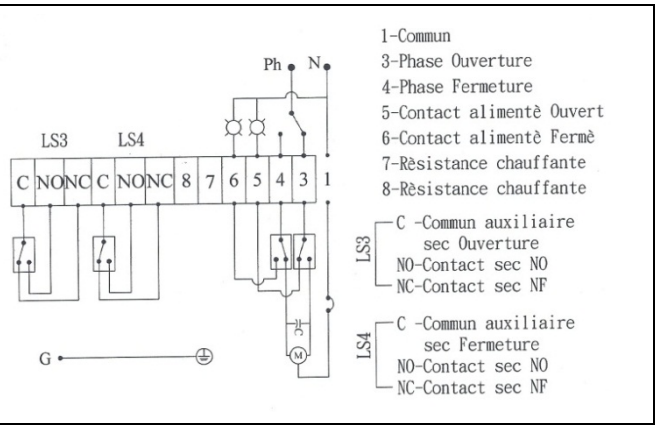
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ELECTRIC ACTUATOR UV

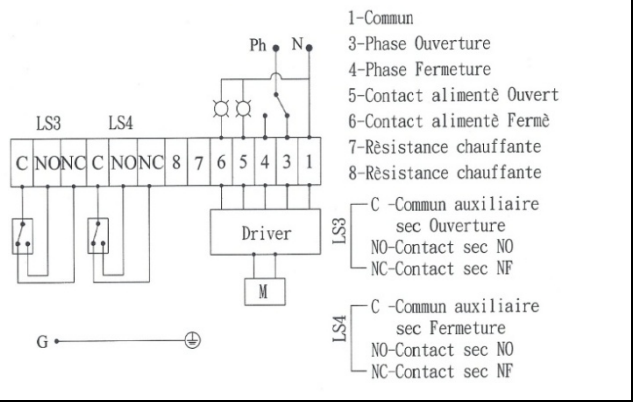
WIRING SCHEME 230 V AC

1	Common
3	Opening phase
4	Closing phase
5	Open powered contact
6	Close powered contact
7	Heater
8	Heater
C	Aux. common LS3 Opening
NO	Aux. NO contact LS3 Opening
NC	Aux. NC contact LS3 Opening
C	Aux. common LS4 Closing
NO	Aux. NO contact LS4 Closing
NC	Aux. NC contact LS4 Closing



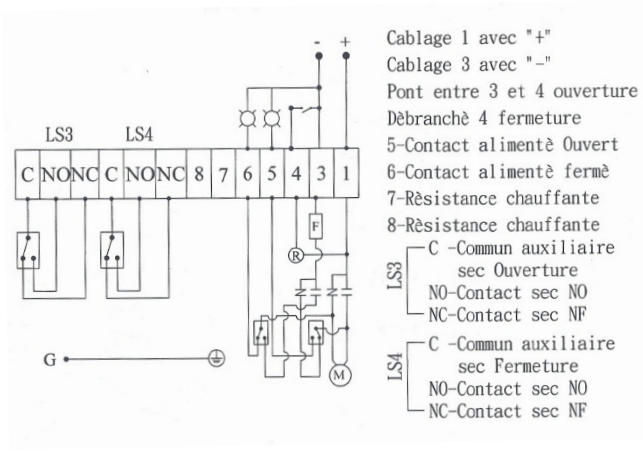
WIRING SCHEME 24 V AC

1	Common
3	Opening phase
4	Closing phase
5	Open powered contact
6	Close powered contact
7	Heater
8	Heater
C	Aux. common LS3 Opening
NO	Aux. NO contact LS3 Opening
NC	Aux. NC contact LS3 Opening
C	Aux. common LS4 Closing
NO	Aux. NO contact LS4 Closing
NC	Aux. NC contact LS4 Closing



WIRING SCHEME 24 V DC

	Wire 1 with +
	Wire 3 with -
	Bridge between 3 and 4 opening
	Disconnected 4 closing
5	Open powered contact
6	Close powered contact
7	Heater
8	Heater
D1	Aux. common #1
D2	Aux. NO contact #1
D3	Aux. NC contact #1
C1	Aux. common #2
C2	Aux. NO contact #2
C3	Aux. NC contact #2



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