

710-711 VALVE WITH UM ELECTRIC ACTUATOR

CHARACTERISTICS

The 710-711+NA ball valve is dedicated to the automatic opening/shut-off of uncharged industrial fluid pipes with a 40 bar maximum pressure. This 3-piece full port ball valve has the ATEX and EC 97/23 certification. It complies with the EN 558 series 1 face-to-face standard. The ISO 5211 pad enables the direct mounting of the UM electric actuator. It is perfectly adapted for an indoor or outdoor service (under shelter).

3.1
Cert.

IP 67



AVAILABLE ITEMS

710: 1.0619 carbon steel (A216 WCB) body

711: 1.4408 stainless steel (A351 CF8M) body

DN 15 to DN 80

Flanged connections RF PN40

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



LIMITS OF USE

Max. allowable pressure (PS)	40 bar (20 °C)
Min./max. allowable temperature (TS)	Steel: -20 °C / +200 °C Stainless steel: -30 °C / +200 °C
Room temperature	-10 °C / +50 °C
Service	S4 – 30% - 10 starts/h

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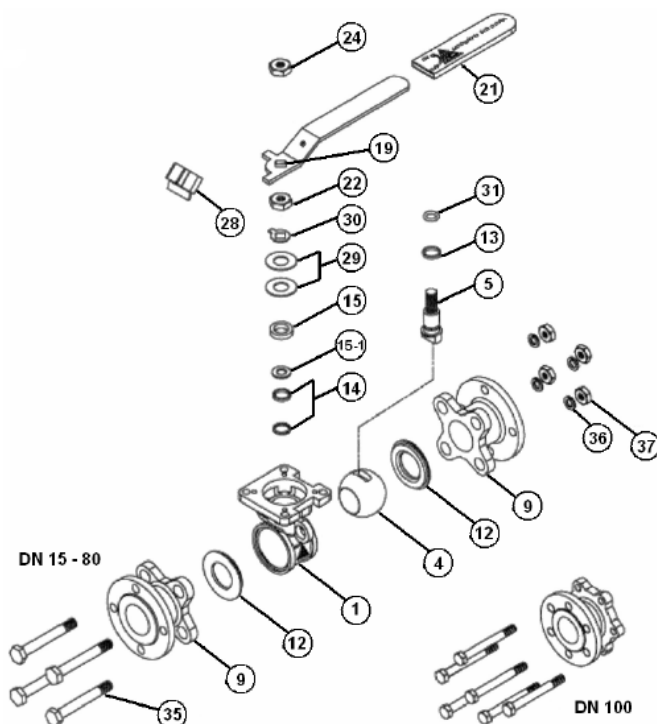
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	Rev.	5	
	Date	05/2012	

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DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	DN 15 and 20 : excluded		Valve testing	EN 12266
	DN 25 to 100 : category II	#0035	Material certification	EN 10204
Size	EN 12516-1		Alloy grade	EN 1503-1
Flanges dimension	EN 1092-1		Face-to-face dimensions	EN 558 series 1
Actuator attachment	ISO 5211			

CONSTRUCTION



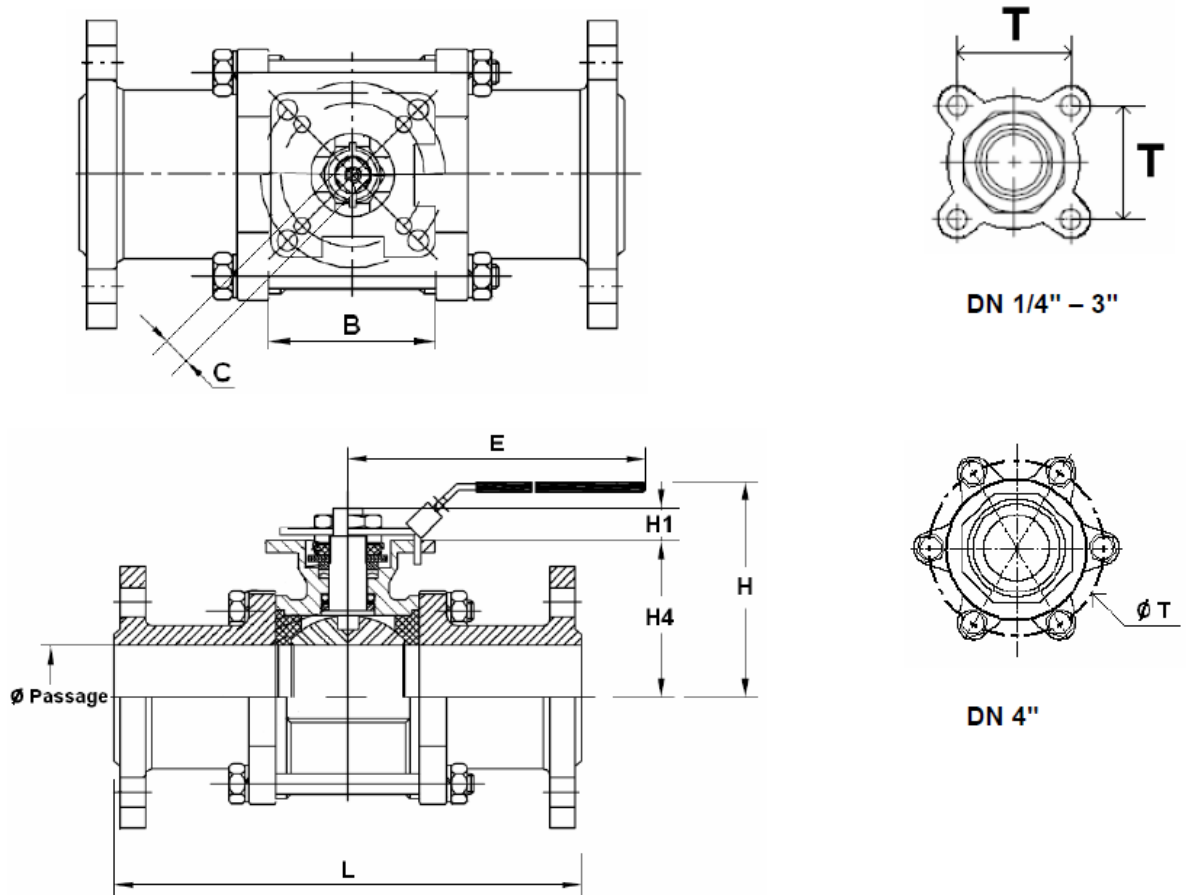
#	Item	710 CS	711 SS	#	Item	710 CS	711 SS
1	Body	Carbon steel A216 WCB	Stainless steel A351 CF8M	22	Gland pack nut	Stainless steel 304	
4	Ball	Stainless steel A351 CF8M		24	Handle nut	Stainless steel 304	
5	Stem	Stainless Steel 316		28	Locking device	Stainless steel 304	
9	Ends	Carbon steel A216 WCB	Stainless steel A351 CF8M	29	Belleville spring washer	Stainless steel 301	
12	Seat	PTFE+50% Stainless steel		30	Locking washer	Stainless steel 304	
13	Ring	PTFE+25% Graphite		31	Stem gasket	FKM	
14	Gland pack	PTFE+25% Graphite		35	Bolts	SS 304	
15	Spacer sleeve	SS 304		36	Washers	SS 304	
19	Handle	SS 304		37	Nuts	SS + PTFE + Graphite	
21	Sleeve	PVC					

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DIMENSIONS (mm)



DN	15	20	25	32	40	50	65	80	100
Ø	15	20	25	32	40	50	65	80	100
L	130	150	160	180	200	230	290	310	350
B	22.5	27.5	34	42.5	52	63.5	85.5	102	129
E	112	112	136	185	197.9	197.9	264	264	325
H	73	80.8	90.5	98.7	115.3	124	155	208.5	216.7
H1	8.5	8.5	11.4	11.4	14	13.7	18	18	23
H4	37	45	53.5	59	74.8	83.5	108.8	118.3	153.8
C	9	9	9	9	14	14	17	17	17
T	31	35	41	49	59	71	91	107	195
Weight (kg)	2.04	2.9	3.7	5.4	6.7	9.7	15.4	21.3	36.7

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710-711 VALVE WITH UM ELECTRIC ACTUATOR

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 electric actuator

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: 2 gland packs. M20x1.5 Optional equipment Anti-condensation heater
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	
80	UMC10	25 W	8 s	N/A	
100	Refer to 710 + UV				

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

For any other working conditions, please contact us.

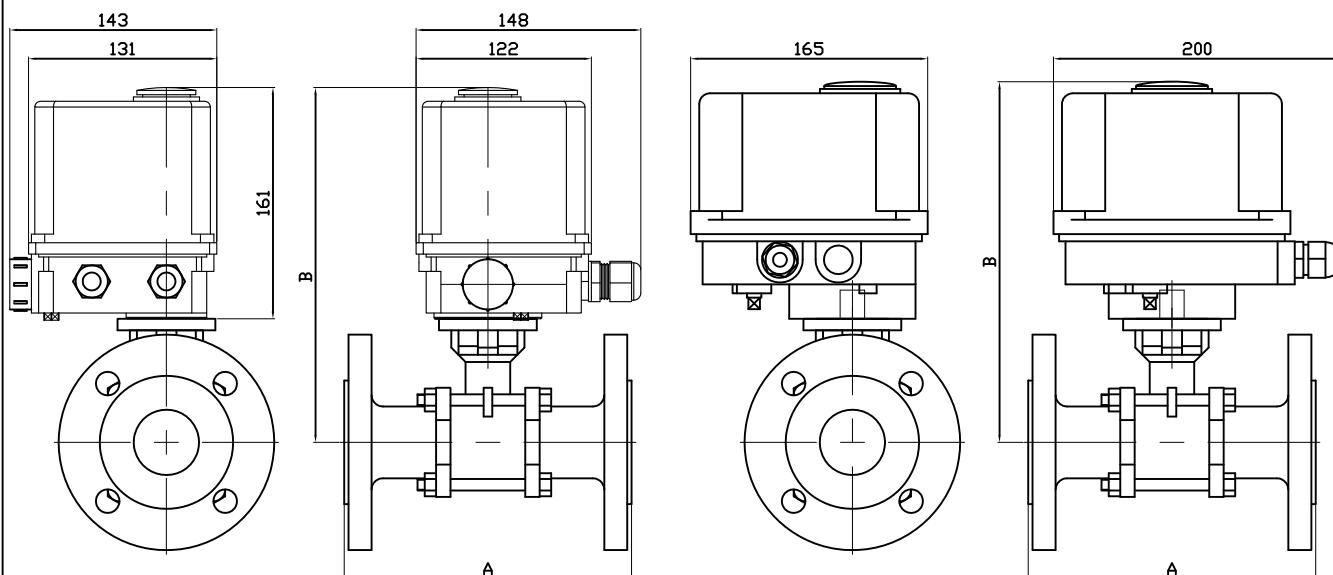
ACTUATION OPTIONS

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

1	Thermal dispersion bracket for high temperature fluids
2	100 mm high stem extension for pipe insulation
3	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)
4	UV electric actuator with a declutchable manual override by handwheel
5	Anti condensation heater

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DN	15	20	25	32	40
SERVO	UMA3.5	UMA3.5	UMA3.5	UMA3.5	UMA3.5
A	130	150	160	180	200
B	258*	266*	214.5	220	236
KG	3.82	4.68	5.48	7.18	8.48

DN	50	65	80
SERVO	UMC10	UMC10	UMC10
A	230	290	310
B	248.5	274	283
KG	13.7	19.4	25.3

*:Montage avec platine H=60mm

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

Ech: /	Date :01/04/2004	Dessiné par : F.G.	Tolérances générales : +/- 0.2	Ajout poids,UMC10-modif cote B	11/07/2012	A
ROBINET A TOURNANT SPHERIQUE 710-711MD/BALL VALVE 710-711MD + SERVOMOTEUR UMA-3.5 UMC10/ELECTRIC ACTUATOR UMA-3.5 UMC10				Modifications	Date	REV.
				Matière :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 641A		

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

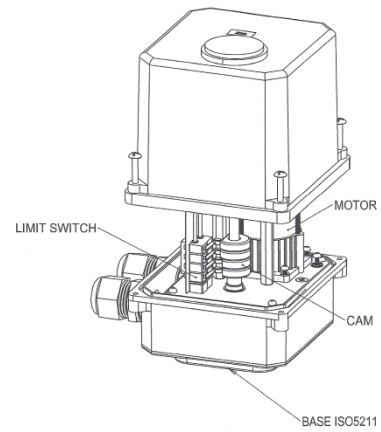
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		Date	02/2012

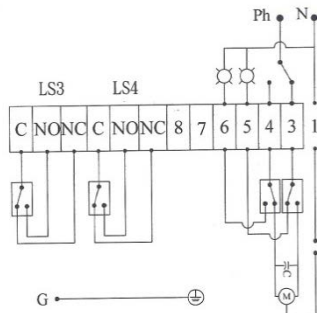
ELECTRIC ACTUATOR UMA3.5

CONSTRUCTION

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

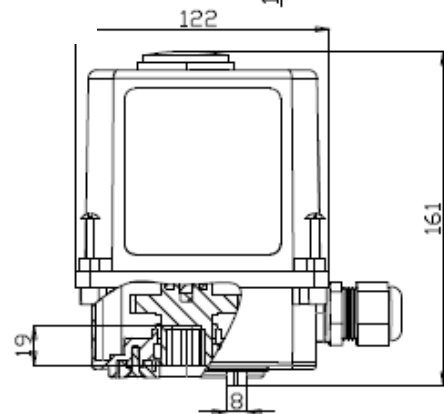
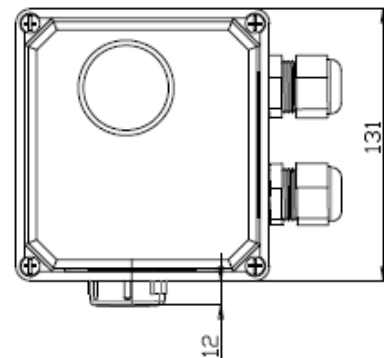


WIRING SCHEME 230 V AC

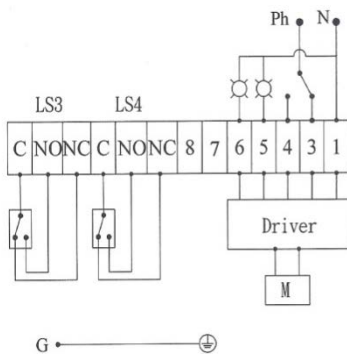


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

DIMENSIONS (mm)

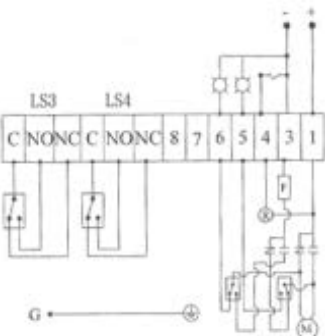


WIRING SCHEME 24 V AC

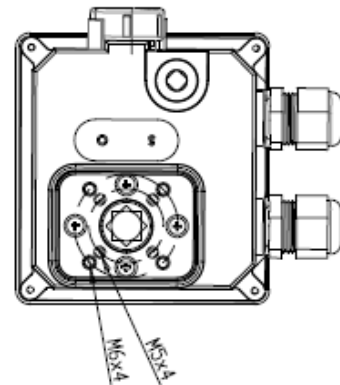


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

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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ELECTRIC ACTUATOR UMC

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

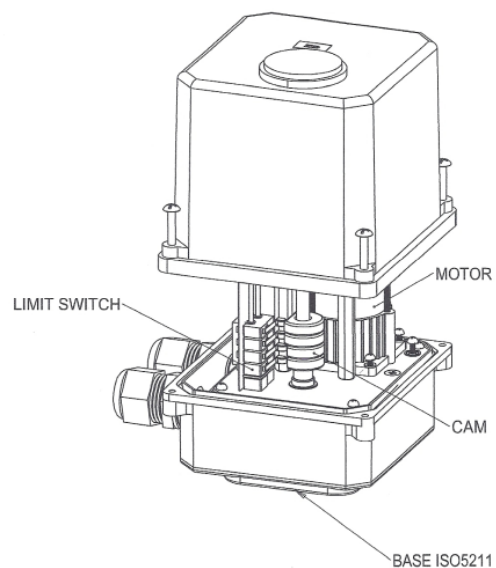
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ELECTRIC ACTUATOR UMC

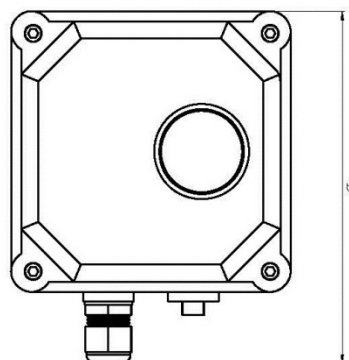
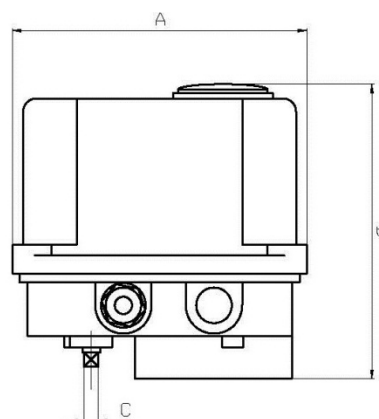
CONSTRUCTION

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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ELECTRIC ACTUATOR UMC

WIRING SCHEME 230 V AC AND 24 V AC

		230 V AC	24 V AC
1	Common		
3	Opening phase		
4	Closing phase		
5	Open powered contact		
6	Close powered contact		
7	Heater		
8	Heater		
9-C	Aux. common LS3 Opening		
10-NO	Aux. NO contact LS3 Opening		
11-NC	Aux. NC contact LS3 Opening		
12-C	Aux. common LS4 Closing		
13-NO	Aux. NO contact LS4 Closing		
14-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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