

1150-1158 BUTTERFLY VALVES + UM ELECTRIC ACTUATOR

CHARACTERISTICS

The butterfly valves 1150 to 1158 are dedicated to the automatic opening/shut-off of various fluid pipes. It has a ductile iron body. Thanks to various material possibilities for both the butterfly and the sleeve, it can be used in different applications. The wafer type body enables the mounting between PN10/16 or ANSI 150 flanges. The ISO 5211 pad enables the direct mounting of the UM electric actuator. It is perfectly adapted for an indoor or outdoor industrial use.



AVAILABLE ITEMS

DN 32-40 to DN 150

Flanged connections RF PN10/16 and ANSI 150

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


Ref.	Butterfly	Sleeve	Application examples	Min. TS	Max. TS
1141	Ductile iron	NBR	Natural gas –NF-ROB GAZ 5 bar Certification	-10 °C	+60 °C
1147	Stainless steel 316	Carboxylated NBR.	Powdery – abrasive material	-10 °C	+80 °C
1150	Ductile iron	EPDM	Cold water – warm water (max 110 °C) - ACS	-10 °C	+90 °C
1151	Stainless steel 316	NBR	Hydrocarbons, natural gas, compressed air	-10 °C	+80 °C
1152	Ductile iron	NBR	Hydrocarbons, natural gas, compressed air	-10 °C	+80 °C
1153	Stainless steel 316	EPDM	Demineralised water – Alkaline materials (max 110 °C) - ACS	-10 °C	+90 °C
1154	Stainless steel 316	FKM	Compatible aggressive fluids, oil	-5 °C	+150 °C
1156	Stainless steel 316	White NBR	Compatible aggressive fluids	-10 °C	+80 °C
1157	Stainless steel 316	SILICONE	Oils and greases	-15 °C	+150 °C
1157A	Polished Stainless steel	Food grade silicone	Food fluids (FDA certification)	-15 °C	+150 °C
1158	Aluminium bronze	NBR	Sea water	-10 °C	+80 °C

LIMITS OF USE

Max. allowable pressure (PS)	16 bar until DN200 10 bar until DN 400
Min./max. allowable temperature (TS)	According to the upper chart
Room temperature	-15 °C / +50 °C
Service	S4 - 30% - 10 starts / h



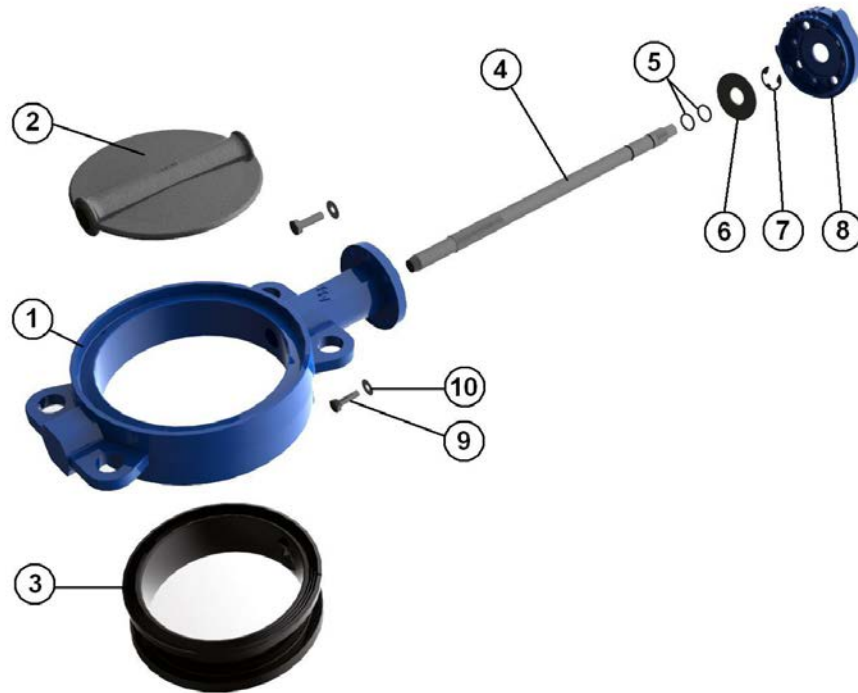
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DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE


	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	Cat. III modules B+C1	0409	Valve testing	ISO 5208
ATEX Directive	II 2G/D Tx zones 1,2,21 and 22	0038	Face-to-face dimension	ISO 5752 series 20
Flange dimension	EN 1092-1		Sanitary compliance	ACS N° 07 ACC LY 504
Actuator attachment	ISO 5211			



CONSTRUCTION

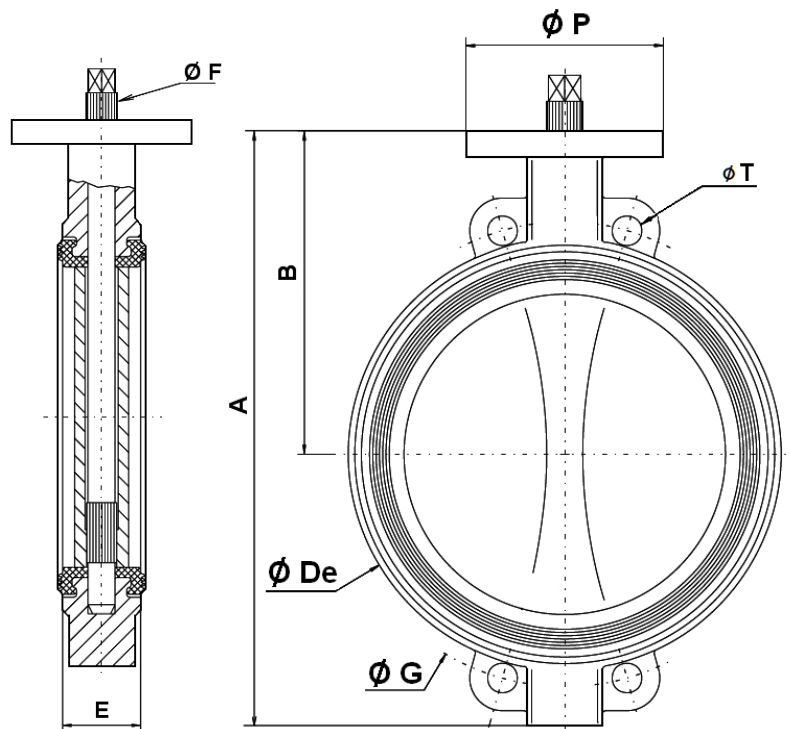
Item	1147	1150	1151	1152	1153	1154	1156	1157	1158
1 Body	Ductile iron GS EN GJS-500-7								
2 Butterfly DN32-100	Stainless steel A351 CF8M /1.4408								Aluminium bronze
3 Butterfly DN125-400	Stainless steel	Ductile iron GS EN GJS-500-7			Stainless steel A351 CF8M /1.4408				
3 Sleeve	NBR C.	EPDM	NBR	NBR	EPDM	FKM	White NBR	Silicone	NBR
4 Stem	SS 304	SS 420	SS 304	SS 420	SS 304	SS 304	SS 304	SS 304	SS 304
5 O-ring	NBR	EPDM	NBR	NBR	EPDM	FKM	NBR	EPDM	NBR
6 Ring	Steel								
7 Securing rings / Circlips	Steel								
8 ISO pad	Aluminium								
9 Screw	Steel 5.6								
10 Washer	Steel								

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DIMENSIONS (mm)




DN	32-40	50	65	80	100	125	150	200	250	300	350	400
A	206	228	243	266	294	324	349	438	461	523	582	645
B	140	156	162	170	185	207	216	256	248	280	300	340
Ø De	82	102	119	135	155	185	208	270	328	381	437	486
E	33	43	46	46	52	56	56	60	68	78	78	102
Ø F	10.5	10.5	14.5	16.5	16.5	18.5	18.5	22.5	25.5	30.5	30.5	35.5
Ø G	110	125	145	160	180	210	240	295	350	400	460	515
Ø P	88	88	88	88	88	105	105	105	150	150	170	170
Ø T	18	18	18	18	18	18	23	23	23	23	23	17
Weight (kg)	2.46	3.66	4.40	4.60	6	7.60	9.20	14.7	24.7	33	39	52

FLOW FACTOR Kv (m³/h)

DN	32-40	50	65	80	100	125	150	200	250	300	350	400
Kv	70	109	200	334	551	901	1427	2383	3825	5659	8177	10659

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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)

The actuator is directly mounted with an aluminium actuation pad

DN	Actuator	Power	Operating time* 230 V AC	Operating time* 24 V AC/DC	Standard equipment of the actuator
32-40	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 Optional equipment Anti-condensation heater
40	UMA3.5	10 W	10 s	15 s	
50	UMA3.5	10 W	10 s	15 s	
65	UMA3.5	10 W	10 s	15 s	
80	UMA3.5	10 W	10 s	15 s	
100	UMC10	25 W	8 s	N/A	
125	UMC10	25 W	8 s	N/A	
150	UMC15	25 W	8 s	8 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.

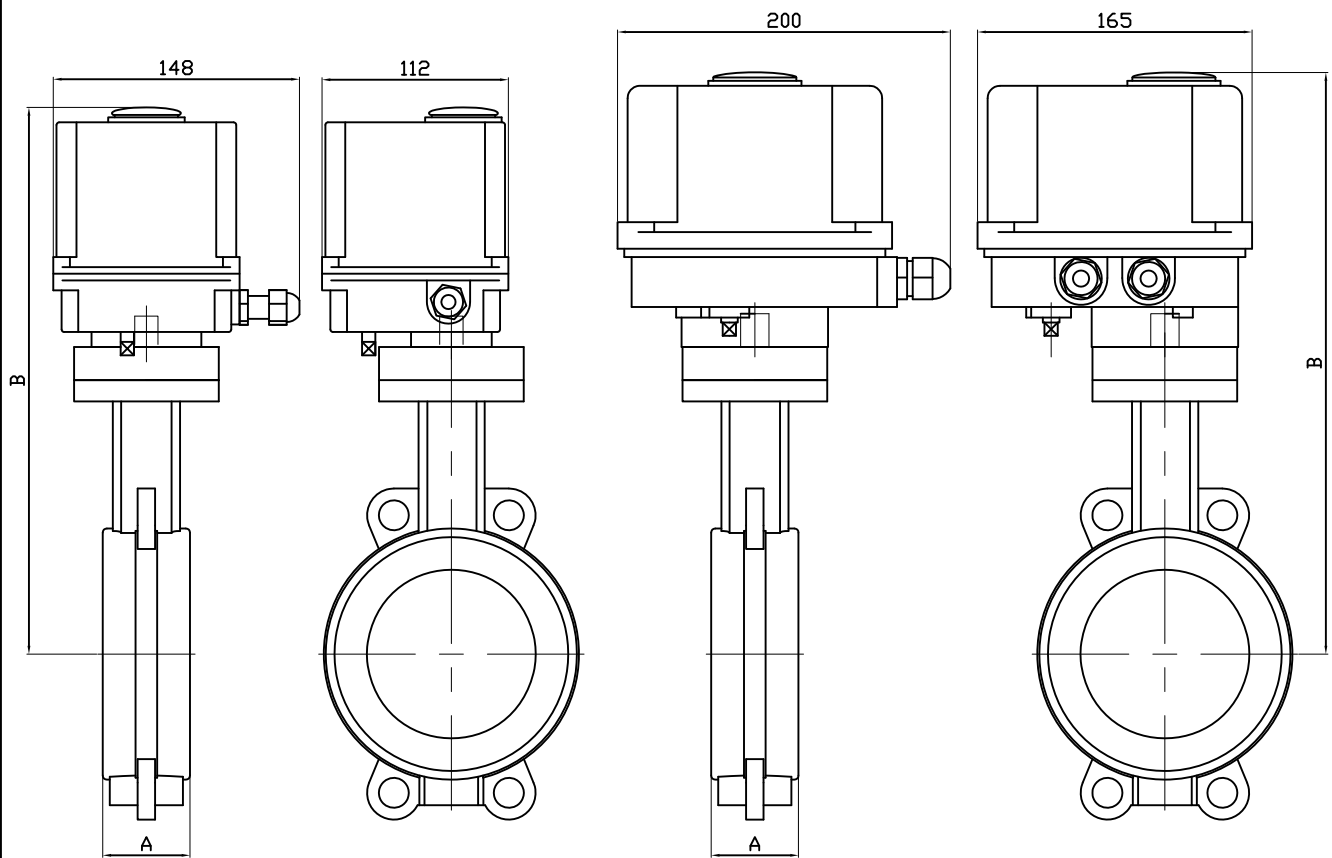
1	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)
2	UM electric actuator with a declutchable manual override by handwheel
3	Anti-condensation heater

VALVE OPTIONS

1	Carbon steel body, stainless steel 304 and 316, bronze and aluminium
2	Carbon steel butterfly, stainless steel 304 and 316, bronze aluminium, uranus, hastelloy
3	Hypalon seats, steam silicone, white EPDM, natural rubber, vulcanized neoprene
4	Stainless steel 420, 304, 316 stems, hastelloy

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DN	32-40	50	65	80
SERVO	UMA3.5	UMA3.5	UMA3.5	UMA3.5
A	33	43	46	46
B	297	313	319	327
KG	4.4	5.3	6	6.5

DN	100	125	150
SERVO	UMC10	UMC10	UMC15
A	52	56	56
B	363	385	394
KG	12.3	14.1	16.8

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech:		Date :12/05/2004	Dessiné par : F.G.	Tolérances générales : +/- 0.2	Ajout UMC10 et UMC15	07/09/2011	B
					Modification du titre	08/11/06	A
					Modifications	Date	REV.
ROBINET A PAPILLON 1149-1158 + SERVOMOTEUR UMA-3.5/UMC10-UMC15					Matière :		
					Poids <Kg> :		
					Traitement : SANS		
					45, Rue du Ruisseau		
38297 SAINT QUENTIN FALLAVIER					Plan n° Ens 803-B		

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

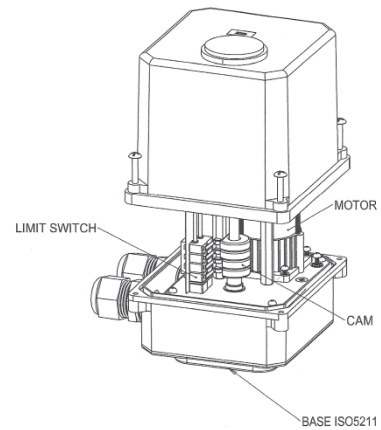
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		Date	02/2012

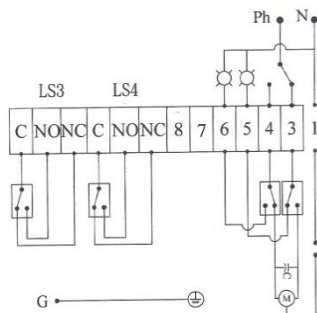
ELECTRIC ACTUATOR UMA3.5

CONSTRUCTION

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

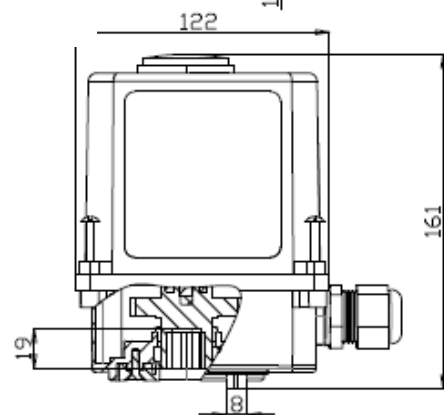
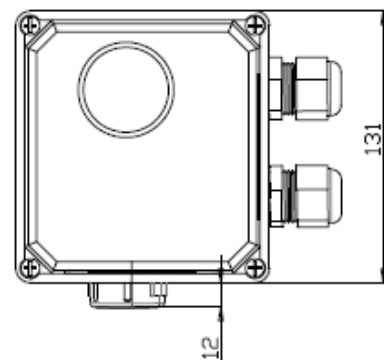


WIRING SCHEME 230 V AC

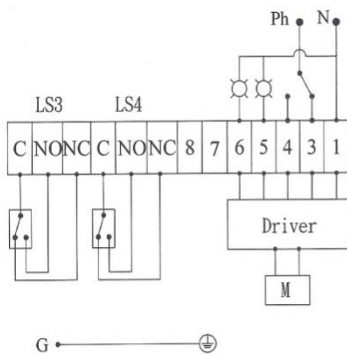


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

DIMENSIONS (mm)

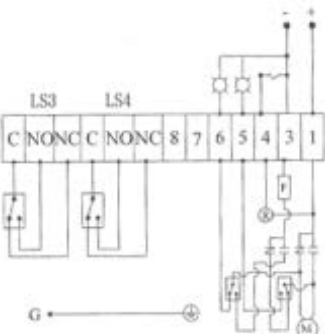


WIRING SCHEME 24 V AC

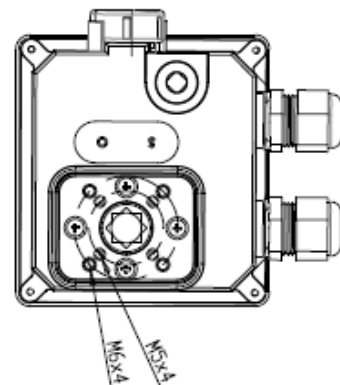


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

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

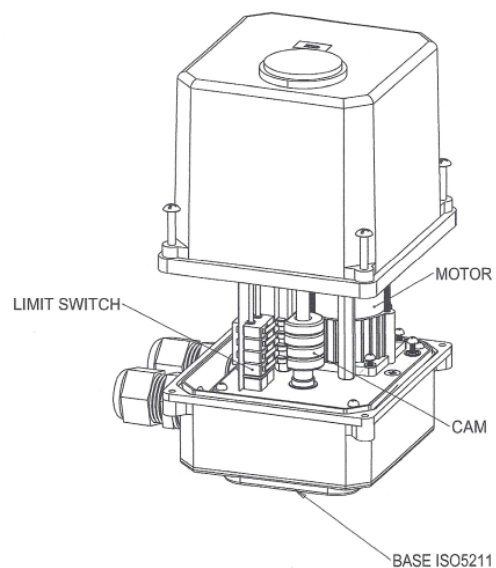
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ELECTRIC ACTUATOR UMC

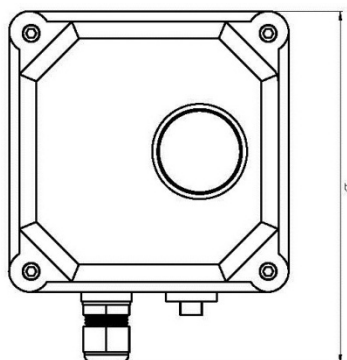
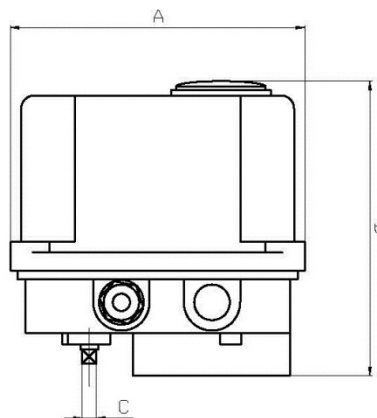
CONSTRUCTION

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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