

# 502 VALVE WITH UM ELECTRIC ACTUATOR

## CHARACTERISTICS

The 502+UM is a 2-way brass ball valve dedicated to the automatic shut-off of non-corrosive common fluids: water, air, hydrocarbons, etc. It is a full 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 actuator. It is perfectly suitable for an indoor or outdoor (under shelter) service.

## AVAILABLE ITEMS

CW 617N brass body

Size 1/4" to 1"

BSP threaded connections

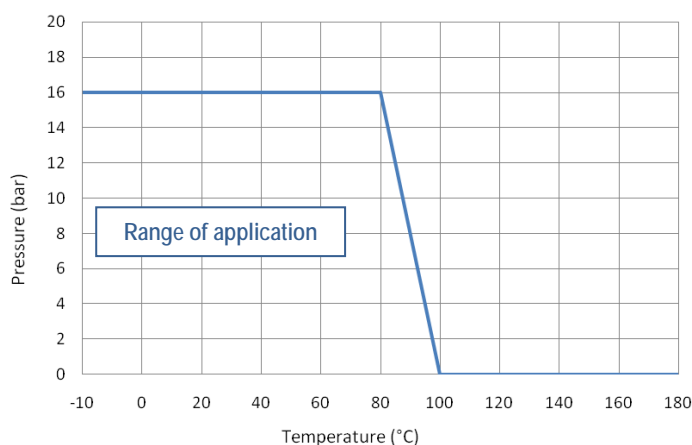
Voltages: 24 V DC, 24 V AC and 230 V AC



1/2" to 4"

## 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 CONSTRUCTION STANDARDS

	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment directive	1/4" to 1" : excluded		French Sanitary Compliance Certificate (ACS)	1/4"-3/8" : excluded
	1" 1/4 to 1" : article 3 § 3			1" 1/4 to 1" : 08 ACC LY 073
	2" 1/2 to 4" : category II	PASCAL#1115		2" 1/2 to 4" : 08 ACC LY 075
Shell design	EN 12516-4		Actuator attachments	ISO 5211
Alloy grade	EN 12240		Valve testing	EN 12266

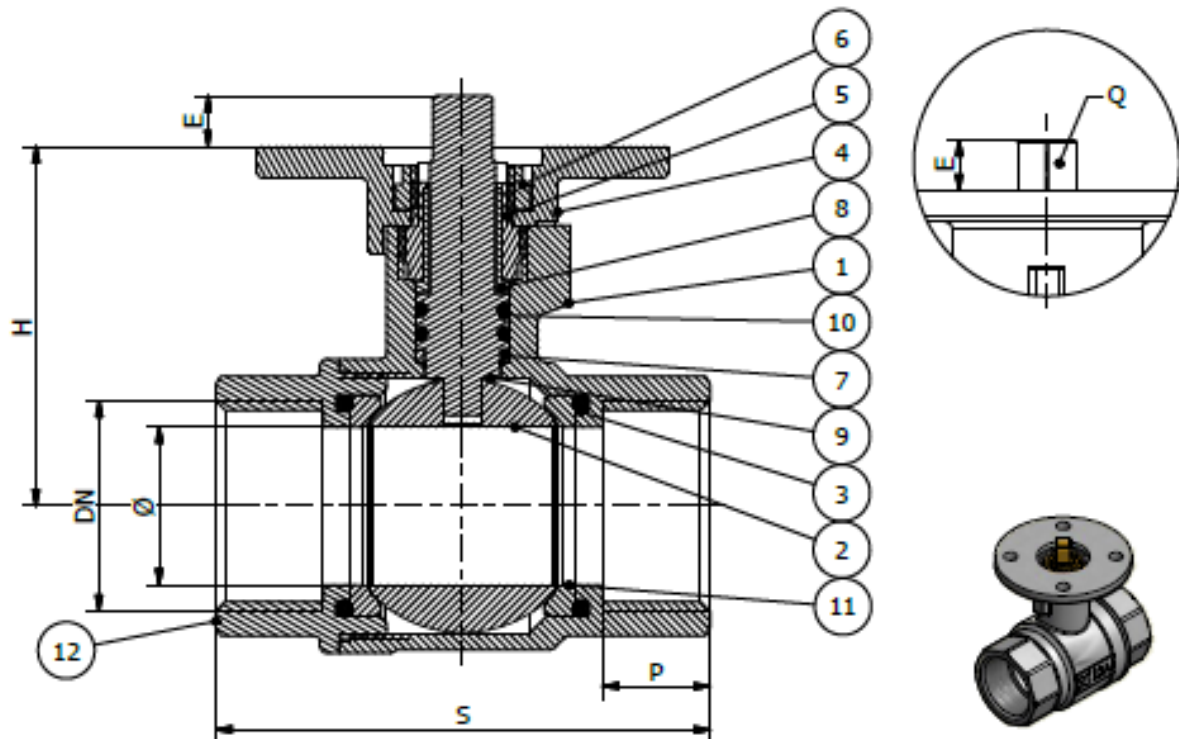
The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a>	Pages	1/4
		Ref.	FT502+UM GB
		Rev.	Rev6
		Date	02/2012

# 502 VALVE WITH UM ELECTRIC ACTUATOR

## CONSTRUCTION

#	Item	Material	#	Item	Material
1	Body	Nickel-plated CW 617N brass	7	Anti-friction ring	PTFE
2	Ball	Chromium-plated CW 617 brass	8	Anti-friction sleeve	PTFE
3	O-ring (DN 2" ½ to 4")	NBR	9	Stem	CW 614N brass
4	Actuator pad	Nickel-plated CW 617N brass	10	O-ring	NBR / FKM
5	Nut	CW 614N brass	11	Seat	PTFE
6	Nut	CW 614N brass	12	End	Nickel-plated CW 617N brass



## DIMENSIONS (mm)

DN	¼"	3/8"	½"	¾"	1"	1" ¼	1" ½	2"	2" ½	3"	4"
Ø	10	10	15	20	25	32	39	48	64	78	100
S	50	60	56	68	78	90	100	115	141	159	196
P	10	11	14	16	17	18	19	21	25	25	30
H	33	34	48	52	56	68	73	79	92	102	127
E	9	9	8	8	8	10	10	10	12	12	17
Q	9	9	11	11	11	11	11	11	14	14	17
ISO	F03	F03	F03-F05	F03-F05	F03-F05	F05	F05	F05	F05	F05	F07

The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: sectoriel@sectoriel.fr	Pages	2/4
		Ref.	FT502+UM GB
		Rev.	Rev6
		Date	02/2012

# 502 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
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 UMC10 and 15: 2 gland packs. ½" PF <b>Optional equipment</b> Anti-condensation heater
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	
2" ½	UMC10	25 W	8 s	N/A	
3"	UMC10	25 W	8 s	N/A	
4"	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.

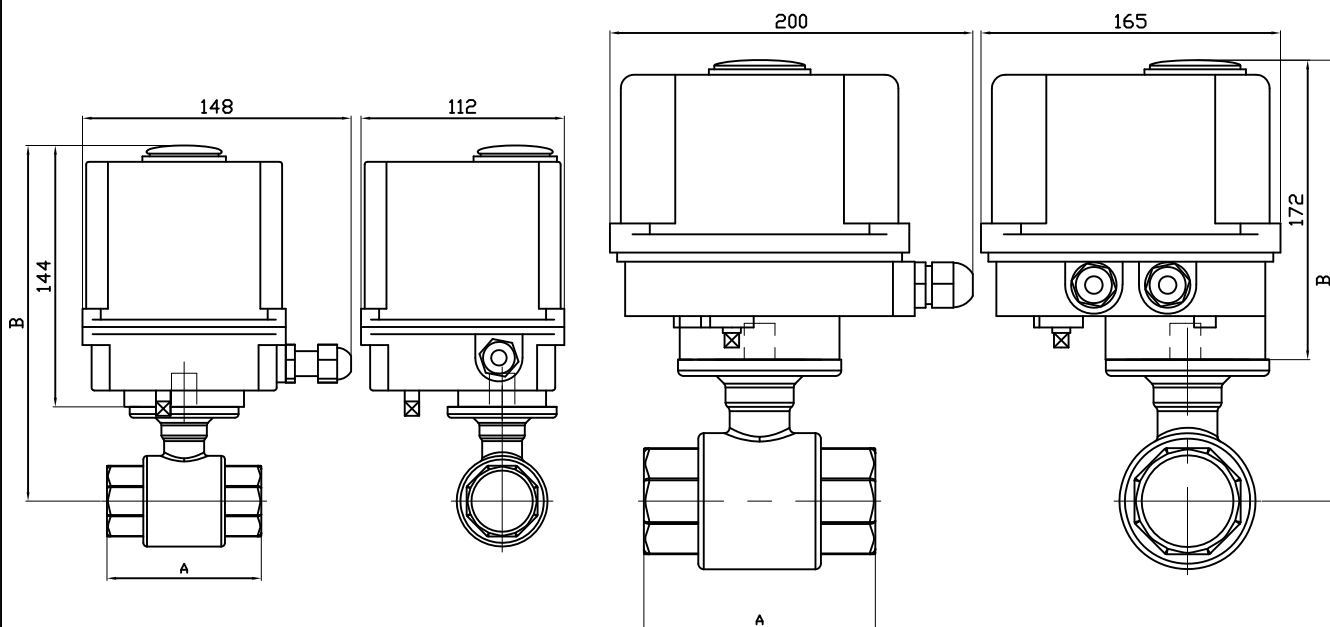
## ACTUATION OPTIONS

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

1	100 mm stem extension for pipe insulation
2	UML low closing electric actuator ( DN ¼" to 3")
3	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)
4	UV actuator with a declutchable manual override by handwheel
5	Anti-condensation heater


The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: sectoriel@sectoriel.fr	Pages	3/4
		Ref.	FT502+UM GB
		Rev.	Rev6
		Date	02/2012



DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
SERVO	UMA-3.5	UMA-3.5	UMA-3.5	UMA-3.5	UMA-3.5	UMA-3.5	UMA-3.5	UMA-3.5	UMC10	UMC10	UMC15
A	50	60	63.5	72	86	96	107	124	141	159	195
B	177	178	189	192.5	196.5	200.5	212	217.5	264	274	301
KG	1.9	1.9	1.9	2	2.3	2.5	3	3.2	8.7	10.9	12.5

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech:/		Date : 20/04/2004	Dessiné par : F.G.	Tolérances générales : +/- 0.2	MAJ.B AJOUT UMC10 ET POIDS	30/01/2012	C
					MAJ. COTES A	30/04/2010	B
					MAJ. COTES A-B	21/06/2007	A
					Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 502				+	Matière :		
SERVOMOTEUR UMA-3.5 - UMC10/15					Poids (Kg) :		
					Traitement : SANS		
		45, Rue du Ruisseau		Plan n° Ens 672C			
		38297 SAINT QUENTIN FALLAVIER					

# 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

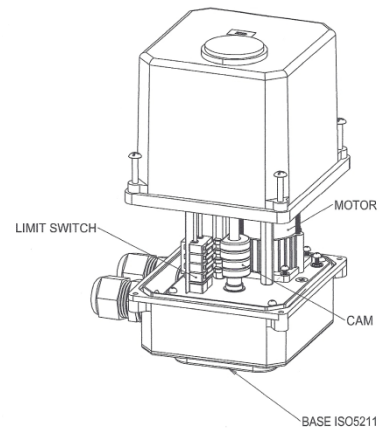
The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a>	Pages	1/2
		Ref.	FT2206 GB
		Rev.	9
		Date	02/2012

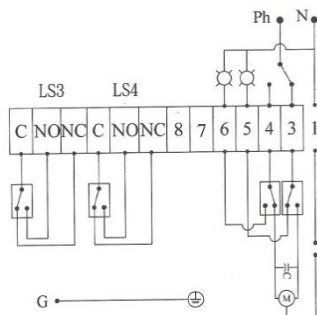
# ELECTRIC ACTUATOR UMA3.5

## CONSTRUCTION

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

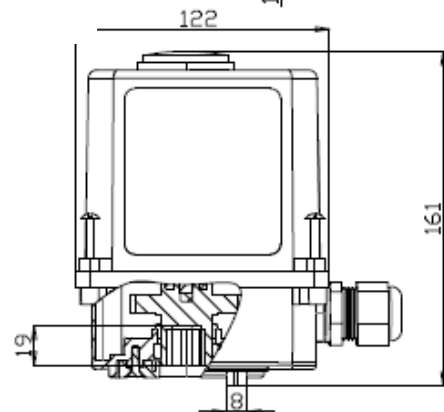
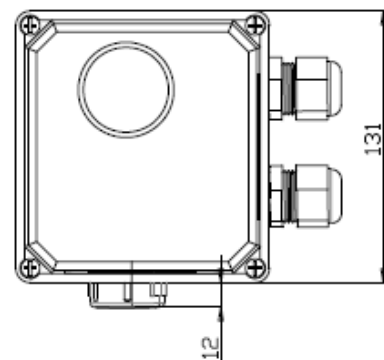


## WIRING SCHEME 230 V AC

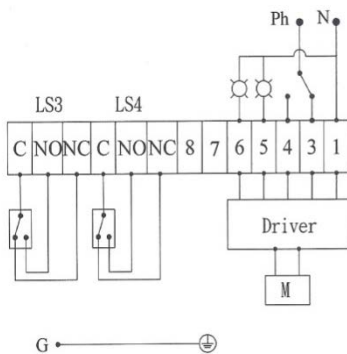


- 1 Common
  - 3 Opening phase
  - 4 Closing phase
  - 5 Open powered contact
  - 6 Close powered contact
  - 7 Heater
  - 8 Heater
- LS3 C-Auxiliary common dry open  
NO- NO Dry contact  
NC- NF Dry contact
- LS4 C-Auxiliary common dry close  
NO- NO Dry contact  
NC- NF Dry contact

## DIMENSIONS (mm)

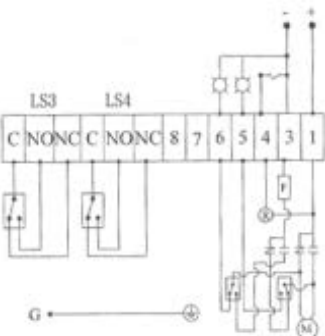


## WIRING SCHEME 24 V AC

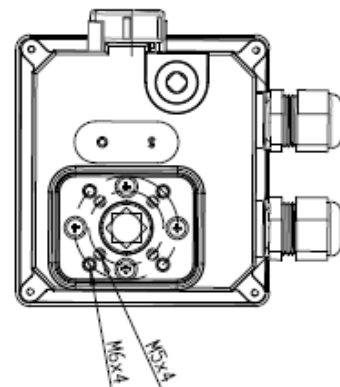


- 1 Common
  - 3 Opening phase
  - 4 Closing phase
  - 5 Open powered contact
  - 6 Close powered contact
  - 7 Heater
  - 8 Heater
- LS3 C-Auxiliary common dry open  
NO- NO Dry contact  
NC- NF Dry contact
- LS4 C-Auxiliary common dry close  
NO- NO Dry contact  
NC- NF Dry contact

## 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



The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: sectoriel@sectoriel.fr	Pages	2/2
		Ref.	FT2206 GB
		Rev.	9
		Date	02/2012

# 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

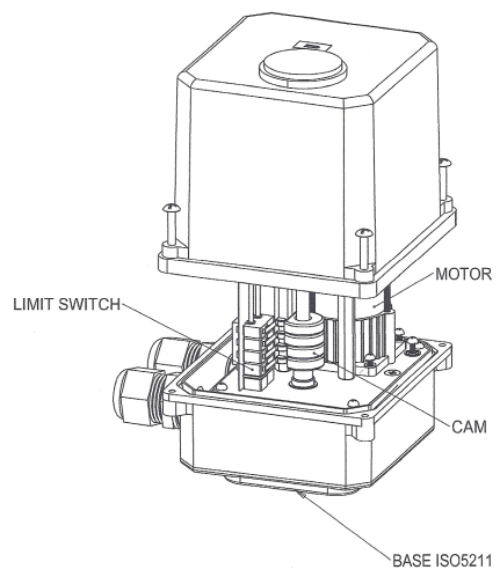
The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a>	Pages	1/3
		Ref.	FT2224 GB
		Rev.	9
		Date	11/2012

# ELECTRIC ACTUATOR UMC

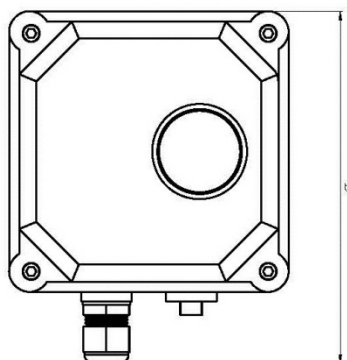
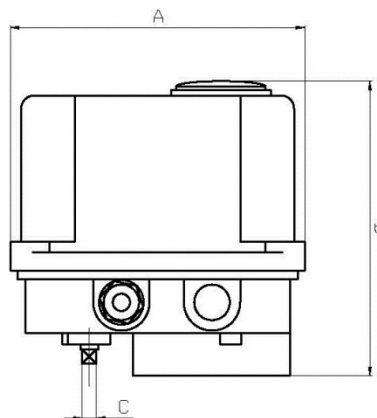
## CONSTRUCTION

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



The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a>	Pages	2/3
		Ref.	FT2224 GB
		Rev.	9
		Date	11/2012



# 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	

The following data is for information purpose only and may be subject to alteration without prior notice

	SECTORIEL S.A. 45, rue du Ruisseau 38290 Saint Quentin-Fallavier – FRANCE Tel.: +33 474 94 90 70 – Fax: +33 474 94 13 95 <a href="http://www.sectoriel.fr">www.sectoriel.fr</a> / email: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a>	Pages	3/3
		Ref.	FT2224 GB
		Rev.	9
		Date	11/2012