

736-746XS VALVE WITH UM ELECTRIC ACTUATOR

CHARACTERISTICS

The 736XS (steel) and 746XS (stainless steel) + UM 2-way ball valves are dedicated to the automatic shut-off of industrial fluids. With their 3-piece and external bolts construction, they are easy to dismantle for maintenance. This full bore ball valve has an antistatic device, a gland pack double tightness and is certified according to the TA-LUFT and the EC standards. The ISO 5211 pad enables the direct mounting of the electric actuator. It is perfectly adapted for an indoor or outdoor service.



AVAILABLE ITEMS

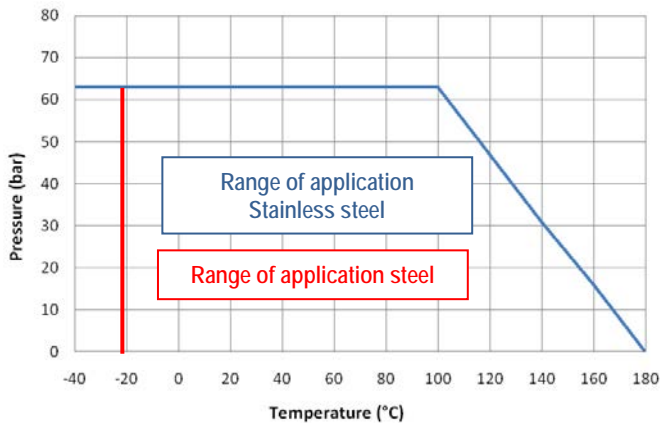
Size ¼" to 4"

Voltages 24 V AC/DC and 230 V AC

| Attachment | G | SW | BW |
|-----------------|-------|-------|-------|
| Steel | 736XS | 735XS | 734XS |
| Stainless steel | 746XS | 743XS | 745XS |

LIMITS OF USE

| Material | Steel | Stainless steel |
|--------------------------------------|------------------------|------------------|
| Max. allowable pressure (PS) | 63 bar (20 °C) | |
| Min./max. allowable temperature (TS) | -25 °C / +180 °C | -40 °C / +180 °C |
| Room temperature | -10 °C / +60 °C | |
| Service | S4 – 30% - 10 starts/h | |



DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

| | Standard | Notified bodies | | Standard |
|---------------------------------------|---------------------------|-----------------|----------------------|----------|
| 97/23/EC Pressure Equipment Directive | ¼" to 1" : excluded | | Valve testing | EN 12266 |
| | 1" ¼ to 4" : category III | TÜV #0035 | Material certificate | EN 10204 |
| Size | EN 12516-1 | | Actuator attachment | ISO 5211 |
| Alloy grade | EN 1503-1 | | | |

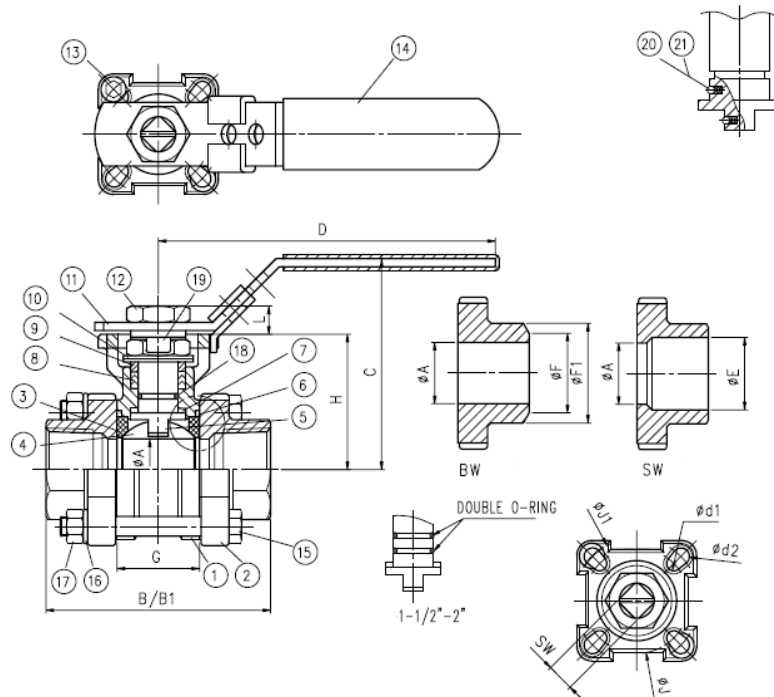
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| | | Ref. | 746XS+UM GB |
| | | Rev. | 6 |
| | | Date | 03/2012 |

736-746XS VALVE WITH UM ELECTRIC ACTUATOR

CONSTRUCTION


| # | Item | Carbon steel | Stainless steel | # | Item | Carbon steel | Stainless steel |
|----|-------------|---------------------------------|---------------------------------------|--|----------------|--------------|-----------------|
| 1 | Body | Carbon steel A216 WCB/1.0619 | Stainless steel A351 CF8M / 1.4408 | 12 | Nut | SS 304 | SS 304 |
| 2 | Ends | Carbon steel A216 WCB/1.0619 | Stainless steel A351 CF8M / 1.4408 | 13 | End stop | SS 304 | SS 304 |
| 3* | Seats | PTFE+15% Graphite | PTFE+15%Graphite | 14 | Sleeve | PVC | PVC |
| 4 | Ball | CF8M / 316 | CF8M / 316 | 15 | Bolts | SS 304 | SS 304 |
| 5 | Stem | SS 316 | SS 316 | 16 | Washer | SS 304 | SS 304 |
| 6* | Body gasket | PTFE | PTFE | 17 | Nuts | SS 304 | SS 304 |
| 7* | Washer | PTFE+15% Graphite | PTFE+15% Graphite | 18* | O-ring | FKM | FKM |
| 8* | Packing | PTFE | PTFE | 19 | Retaining ring | SS 304 | SS 304 |
| 9 | Spacer | SS 304 | SS 304 | 20 | Antistatic | SS 316 | SS 316 |
| 10 | B washer | SS 301 | SS 301 | 21 | Spring | SS 304 | SS 304 |
| 11 | Lever | SS 304 | SS 304 | *Items provided in the maintenance kit | | | |



DIMENSIONS (mm)

| DN | A | B (G) | B (SW) | B1 (BW) | C | D | E | F | F1 | G | H | J1 | SW |
|------|------|----------|-----------|------------|-------|-----|-------|-----|-------|-------|-------|-----|----|
| ¼" | 10 | 65 | 65 | 70 | 46.5 | 110 | 14 | 13 | 17.0 | 26.0 | 41.0 | 42 | 9 |
| 3/8" | 12.5 | 65 | 65 | 70 | 46.5 | 110 | 14 | 13 | 17.0 | 24.5 | 42.3 | 42 | 9 |
| ½" | 16 | 75 | 75 | 75 | 70.9 | 110 | 21.9 | 17 | 22.4 | 25.2 | 42.3 | 42 | 9 |
| ¾" | 20 | 80 | 80 | 90 | 73.4 | 110 | 27.2 | 22 | 28.2 | 27.7 | 44.8 | 42 | 9 |
| 1" | 24.5 | 90 | 90 | 100 | 84.1 | 135 | 34.0 | 28 | 33.7 | 33.0 | 54.0 | 50 | 11 |
| 1" ¼ | 32 | 110 | 110 | 110 | 89.3 | 135 | 42.7 | 37 | 44.0 | 41.2 | 59.2 | 50 | 11 |
| 1" ½ | 38 | 120 | 120 | 125 | 109.5 | 165 | 48.8 | 43 | 50.8 | 49.3 | 73.5 | 70 | 14 |
| 2" | 50 | 140 | 140 | 150 | 118.9 | 165 | 61.3 | 54 | 62.6 | 63.6 | 82.9 | 70 | 14 |
| 2" ½ | 65 | 185 | 185 | 190 | 155.0 | 300 | 77.0 | 74 | 76.1 | 82.1 | 107.0 | 102 | 17 |
| 3" | 80 | 205 | 205 | 220 | 165.0 | 335 | 90.0 | 83 | 88.9 | 95.8 | 117.3 | 102 | 17 |
| 4" | 100 | 240 | 240 | 270 | 180.0 | 335 | 115.5 | 110 | 114.3 | 117.8 | 132.3 | 102 | 17 |

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| | | Rev. | 6 |
| | | Date | 03/2012 |

736-746XS 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 ($=\Delta P$)

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: 2 gland packs. ½" PF |
| 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 | Optional equipment Anti-condensation heater |

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


For any other working conditions, please contact us.

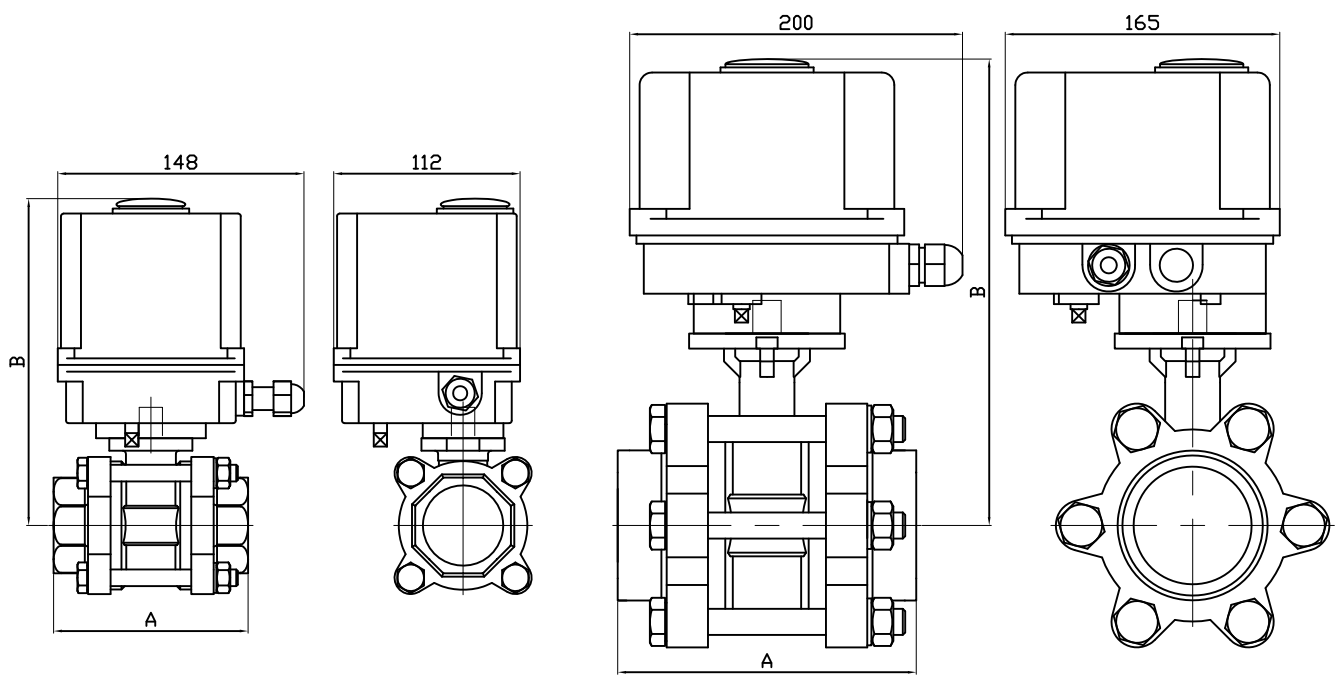
ACTUATION OPTIONS

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

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

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| | | Ref. | 746XS+UM GB |
| | | Rev. | 6 |
| | | Date | 03/2012 |



| DN | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
|-------|--------|--------|--------|--------|--------|--------|
| SERVO | UMA3.5 | UMA3.5 | UMA3.5 | UMA3.5 | UMA3.5 | UMA3.5 |
| A | 75 | 80 | 90 | 110 | 120 | 140 |
| B | 186.3 | 189 | 198 | 203 | 217.5 | 227 |
| KG | 2.22 | 2.52 | 2.99 | 3.72 | 4.7 | 6.32 |

| DN | 2"1/2 | 3" | 4" |
|-------|-------|-------|-------|
| SERVO | UMC10 | UMC10 | UMC10 |
| A | 185 | 205 | 240 |
| B | 272 | 282.3 | 297.3 |
| KG | 13.96 | 19.23 | 27.86 |

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

| | | | | | | | |
|--|--|------------------|--------------------|--------------------------------|----------------------|------------|------|
| Ech: / | | Date :26/04/2004 | Dessiné par : F.G. | Tolérances générales : +/- 0.2 | Ajout UMC10 et poids | 21/02/2012 | A |
| ROBINET A TOURNANT SPHERIQUE 736XS-746XS BALL VALVE 736XS-746XS + SERVOMOTEUR UMA-3.5 UMC 10/ELECTRIC ACTUATOR UMA-3.5 UMC10 | | | | | Modifications | Date | REV. |
| | | | | | Matière : | | |
|  45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER | | | | | Poids (Kg) : | | |
| | | | | | Traitement : SANS | | |
| | | | | | Plan n° Ens 706A | | |

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 |

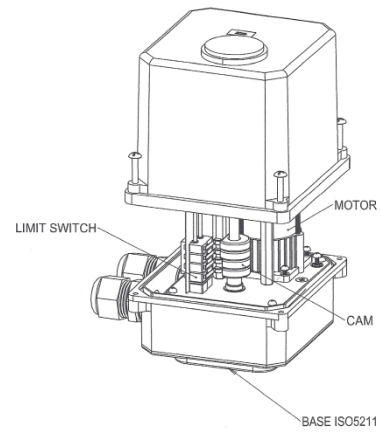
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| | | Date | 02/2012 |

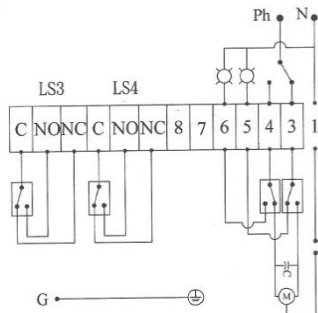
ELECTRIC ACTUATOR UMA3.5

CONSTRUCTION

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

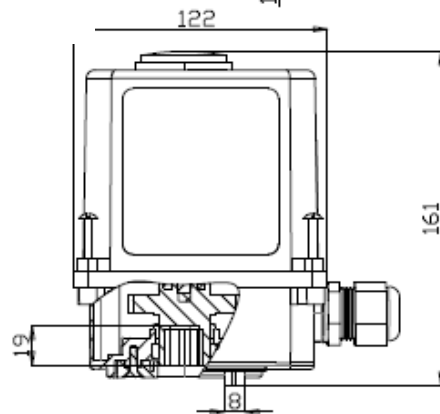
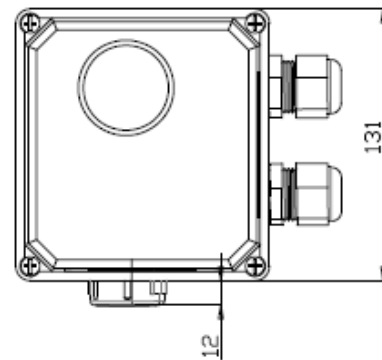


WIRING SCHEME 230 V AC

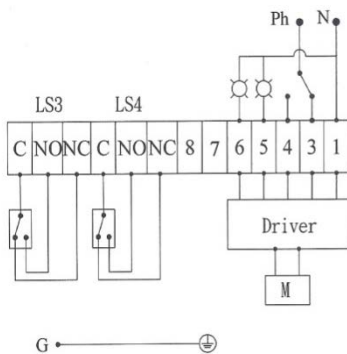


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

DIMENSIONS (mm)

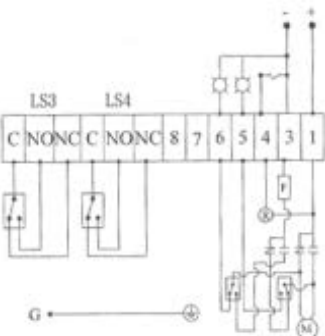


WIRING SCHEME 24 V AC

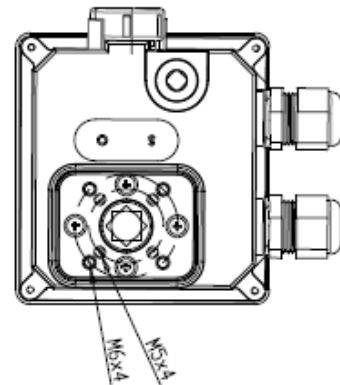


- 1 Common
 - 3 Opening phase
 - 4 Closing phase
 - 5 Open powered contact
 - 6 Close powered contact
 - 7 Heater
 - 8 Heater
- LS3 C-Auxiliary common dry open
NO- NO Dry contact
NC- NF Dry contact
- LS4 C-Auxiliary common dry close
NO- NO Dry contact
NC- NF Dry contact

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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| | | 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 |

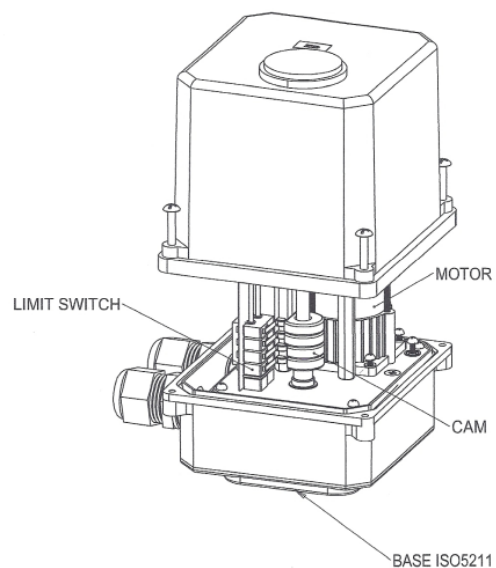
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ELECTRIC ACTUATOR UMC

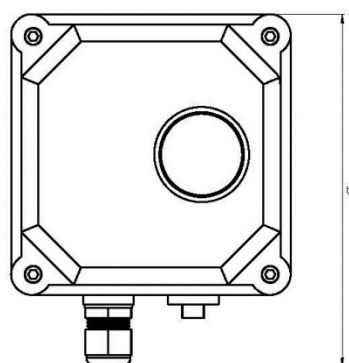
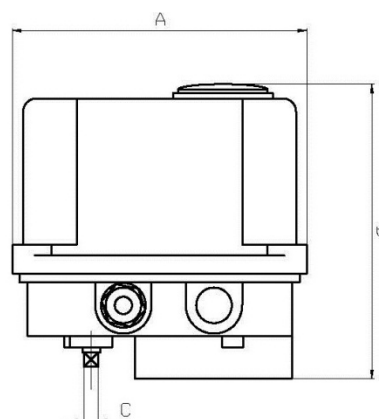
CONSTRUCTION

| | |
|--------------------|----------------|
| 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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