

# BUTTERFLY VALVES 1133-1135 + TCR ELECTRICAL ACTUATOR

## FEATURES

The 1133 and 1135 butterfly valves are intended for the automatic opening/closing of pipes for various common fluids. The valve body is made of grey cast iron. Different configurations of butterfly and sleeve materials allow it to be used in different applications. " Lug " type with threaded ears, mounting between PN10/16 flanges. The long neck allows mounting on insulated pipes. The ISO 5211 plate allows direct mounting of the TCR actuator. This is suitable for service factors of type S3-S4 with indoor or outdoor installation under a shelter.



## AVAILABLE MODELS

DN 50 to DN 250.

Connections between PN10/16 flanges.

**Supply voltages:** 24V AC, 24V DC and 230V AC.

## LIMITS OF USE

|                       |                              |
|-----------------------|------------------------------|
| Fluid pressure: PS    | 16 bar                       |
| Fluid temperature: TS | According to the table below |
| Prohibited Uses       | Steam, natural gas           |
| Room temperature      | -20°C / +60°C                |
| Service factor        | S4 - 50% (TCR02N-05N-11N)    |
|                       | S3 - 85% (TCR20N-40N)        |



| Ref . | Butterfly | Cuff | Example applications                        | TS min | TS max |
|-------|-----------|------|---------------------------------------------|--------|--------|
| 1133  | St. steel | EPDM | Demineralized water - alkaline (130°C peak) | -15°C  | +110°C |
| 1135  | GS Font   | EPDM | Cold water - hot water (130°C peak)         | -15°C  | +110°C |

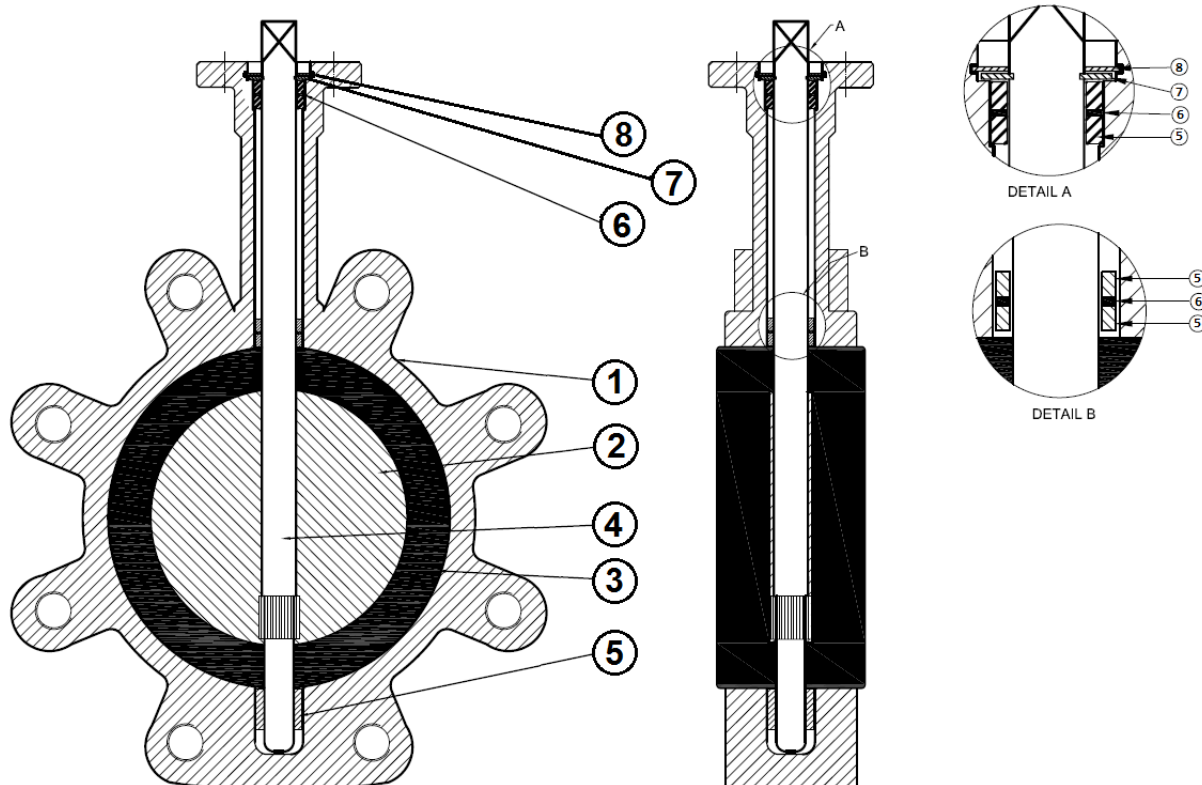
Information given as an indication only, and subject to possible modifications.

|  |                                                                                                                                                                                                                                                                        |       |             |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | SECTORIAL SA<br>45 Ruisseau Street<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Tel: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / mail: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Page  | 1/4         |
|  |                                                                                                                                                                                                                                                                        | Ref . | TDS1135+TCR |
|  |                                                                                                                                                                                                                                                                        | Rev.  | 07          |
|  |                                                                                                                                                                                                                                                                        | Date  | 02/2026     |

# BUTTERFLY VALVES 1133-1135 + TCR ELECTRICAL ACTUATOR

## DIRECTIVES AND MANUFACTURING STANDARDS

| OBJET                                   | Standard                        | ON   | OBJET                       | Standard     |
|-----------------------------------------|---------------------------------|------|-----------------------------|--------------|
| 2014/68/EC Pressure Equipment Directive | <b>DN40 to DN50</b> : Cat I     |      | Final test                  | API 598      |
|                                         | <b>DN65 to DN200</b> : Cat II   | 0035 | Conception                  | API 609      |
|                                         | <b>DN250 to DN300</b> : CAT III | 0035 | Actuator pilot connection   | NAMUR        |
| Face-to-face dimension                  | ISO 5752 série 20               |      | Limit switch box connection | VDI/VDE 3845 |
| Flanges dimension                       | EN 1092-1                       |      | Connection motorization     | ISO 5211     |



## CONSTRUCTION

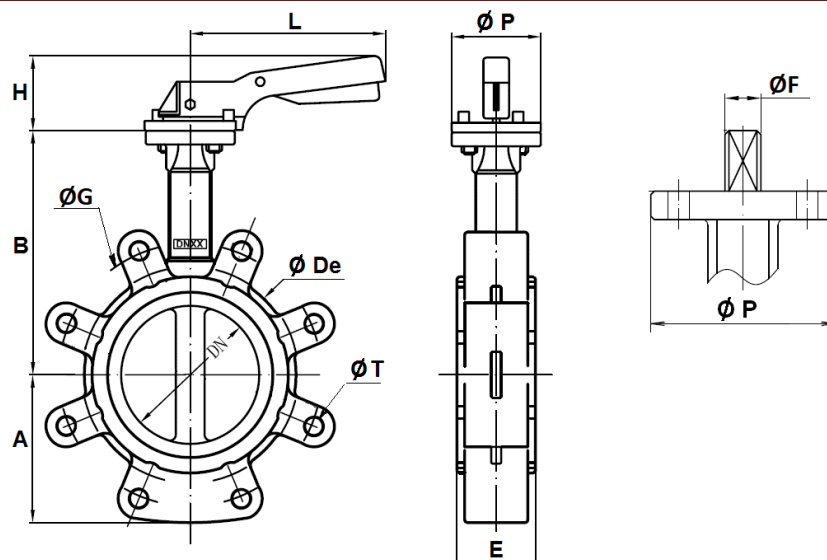
| No. | Designation | 1133                         | 1135                                  |
|-----|-------------|------------------------------|---------------------------------------|
| 1   | Body        | Grey cast iron EN GJS-400-15 |                                       |
| 2   | Seat        | EPDM                         | EPDM                                  |
| 3   | Disc        | Stainless steel 1.4408       | EN GJS-400-15 nickel-plated cast iron |
| 4   | Stem        | Stainless steel 416          |                                       |
| 5   | Landings    | PTFE                         |                                       |
| 6   | O-ring      | EPDM                         | EPDM                                  |
| 7   | Circlips    | Steel                        |                                       |
| 8   | Circlips    | Steel                        |                                       |

Information given as an indication only, and subject to possible modifications.

|                                                                                     |                                                                                                                                                                                                                                                                        |       |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | SECTORIAL SA<br>45 Ruisseau Street<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Tel: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / mail: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Page  | 2/4         |
|                                                                                     |                                                                                                                                                                                                                                                                        | Ref . | TDS1135+TCR |
|                                                                                     |                                                                                                                                                                                                                                                                        | Rev.  | 07          |
|                                                                                     |                                                                                                                                                                                                                                                                        | Date  | 02/2026     |

# BUTTERFLY VALVES 1133-1135 + TCR ELECTRICAL ACTUATOR

## DIMENSIONS (mm)



| DN          | 50    | 65    | 80    | 100   | 125   | 150   | 200   | 250    |
|-------------|-------|-------|-------|-------|-------|-------|-------|--------|
| A           | 77    | 88    | 95    | 107   | 122   | 144   | 171   | 205    |
| B           | 137   | 142   | 158   | 180   | 192   | 215   | 242   | 280    |
| Ø DE        | 95    | 109   | 127   | 152   | 180   | 207   | 260   | 315    |
| E           | 43    | 46    | 46    | 52    | 56    | 60    | 68    | 78     |
| H           | 70    | 70    | 70    | 70    | 71    | 71    | 40    | 44     |
| Ø F         | 9     | 9     | 9     | 11    | 14    | 14    | 17    | 22     |
| Ø G         | 125   | 145   | 160   | 180   | 210   | 240   | 295   | 350    |
| Ø P         | 65    | 65    | 65    | 65    | 90    | 90    | 125   | 150    |
| Ø T         | 4xM16 | 4xM16 | 4xM16 | 8xM16 | 8xM16 | 8xM20 | 8xM20 | 12xM20 |
| Weight (kg) | 3.13  | 3.73  | 4.98  | 5.64  | 9.06  | 10.96 | 16.67 | 31.4   |

## FLOW COEFFICIENT Kv (m³/h)

| DN  | Opening angle |     |     |     |      |      |      |      |      |
|-----|---------------|-----|-----|-----|------|------|------|------|------|
|     | 10°           | 20° | 30° | 40° | 50°  | 60°  | 70°  | 80°  | 90°  |
| 40  | 0,04          | 2   | 5   | 10  | 18   | 30   | 48   | 72   | 78   |
| 50  | 0,05          | 3   | 6   | 13  | 23   | 38   | 60   | 90   | 98   |
| 65  | 0,09          | 5   | 10  | 21  | 38   | 64   | 102  | 152  | 167  |
| 80  | 0,17          | 8   | 15  | 33  | 60   | 99   | 156  | 235  | 258  |
| 100 | 0,26          | 15  | 31  | 67  | 119  | 196  | 310  | 466  | 512  |
| 125 | 0,43          | 25  | 52  | 113 | 202  | 334  | 529  | 793  | 872  |
| 150 | 0,68          | 38  | 81  | 175 | 312  | 516  | 817  | 1226 | 1347 |
| 200 | 1,7           | 76  | 160 | 348 | 620  | 1025 | 1623 | 2434 | 2675 |
| 250 | 2,6           | 129 | 273 | 592 | 1055 | 1746 | 2764 | 4145 | 4555 |
| 300 | 3,4           | 200 | 422 | 914 | 1630 | 2697 | 4269 | 6403 | 7037 |

Information given as an indication only, and subject to possible modifications.

|                                                                                     |                                                                                                                                                                                                                                                                        |       |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | SECTORIAL SA<br>45 Ruisseau Street<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Tel: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / mail: <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Page  | 3/4         |
|                                                                                     |                                                                                                                                                                                                                                                                        | Ref . | TDS1135+TCR |
|                                                                                     |                                                                                                                                                                                                                                                                        | Rev.  | 07          |
|                                                                                     |                                                                                                                                                                                                                                                                        | Date  | 02/2026     |

# BUTTERFLY VALVES 1133-1135 + TCR ELECTRICAL ACTUATOR

## TCR ELECTRIC MOTORIZATION

The TCR engine offered as standard is understood to be:

- IP67 servomotor, aluminum housing, PA66 plastic cover and steel reducer.
- safety coefficient 1.3 minimum in relation to the nominal torque of the valve.
- upstream/downstream pressure difference  $\Delta P=10$  bar max.

The servo motor mounting is straightforward.

| DN  | Servomotor | Power (W)<br>230V AC / 24V AC-DC | Time (s)*<br>230V AC - DC | Time (s)*<br>24V AC - DC | Standard Servomotor Equipment                                                                                                                                                                                                                                                                                                                                                                             |
|-----|------------|----------------------------------|---------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 50  | TCR-05N    | 25                               | 12s                       | 12s                      | 2 adjustable limit switches<br>2 dry auxiliary contacts<br>Engine thermal protection<br>2-3W regulated anti-condensation resistance<br>Emergency manual key control<br>3D Visual Position Indicator<br>Electrical connection:<br><b>TCR05</b> : 1 x PE M20 + 1.5 m cable<br><b>TCR11</b> : 2 x PE M14 + 1.5 m cable<br><b>TCR20</b> : 2 x PE M20 + 1.5 m cable<br><b>TCR40</b> : 2 x PE M20 + 1.5 m cable |
| 65  | TCR-05N    | 25                               | 12s                       | 12s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |
| 80  | TCR-05N    | 25                               | 12s                       | 12s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |
| 100 | TCR-11N    | 100                              | 10s                       | 10s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |
| 125 | TCR-11N    | 100                              | 10s                       | 10s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |
| 150 | TCR-20N    | 50                               | 25s                       | 25s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |
| 200 | TCR-40N    | 80                               | 25s                       | 25s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |
| 250 | TCR-40N    | 80                               | 25s                       | 25s                      |                                                                                                                                                                                                                                                                                                                                                                                                           |

For any other conditions of service, please contact us.

\*indicative time of the servomotor at no load

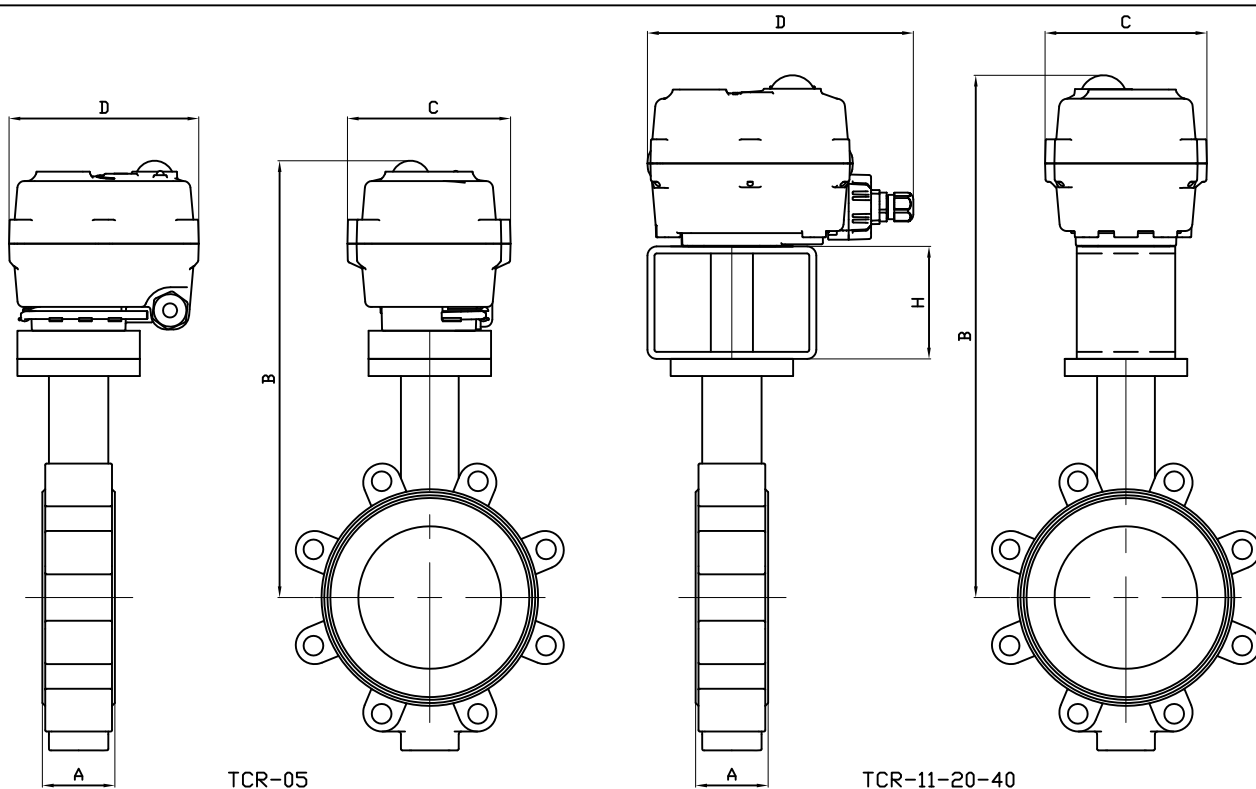
## ENGINE OPTIONS

There are many options for which we ask you to consult our sales department:

|   |                                                                                             |
|---|---------------------------------------------------------------------------------------------|
| 1 | Servomotor sized for upstream/downstream pressure difference $\Delta P$ greater than 10 bar |
| 2 | NC servomotor – capacitor return - TCR-KT32                                                 |
| 3 | Fast Servo Motor - TRC-NH                                                                   |
| 4 | Intelligent servo motor with operating time adjustment - TCR-C                              |
| 5 | Regulation servomotor - TCR-T                                                               |
| 6 | NC regulation servomotor - capacitor return - TCR-T-KT32                                    |
| 7 | Servo motor with fieldbus - TCR-B                                                           |
| 8 | Servo motor with integrated timer - TCR-D                                                   |
| 9 | Servo motor with wireless control - TCR-R                                                   |

Information given as an indication only, and subject to possible modifications.

|                                                                                     |                                                                                                                                                                                                                            |       |             |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | SECTORIAL SA<br>45 Ruisseau Street<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Tel: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / mail: sectoriel@sectoriel.fr | Page  | 4/4         |
|                                                                                     |                                                                                                                                                                                                                            | Ref . | TDS1135+TCR |
|                                                                                     |                                                                                                                                                                                                                            | Rev.  | 07          |
|                                                                                     |                                                                                                                                                                                                                            | Date  | 02/2026     |



| DN    | 50    | 65    | 80    | 100   | 125   |
|-------|-------|-------|-------|-------|-------|
| SERVO | TCR05 | TCR05 | TCR05 | TCR11 | TCR11 |
| A     | 43    | 46    | 46    | 52    | 56    |
| B     | 283.5 | 289   | 305   | 328   | 340   |
| C     | 111   | 111   | 111   | 115   | 115   |
| D     | 132   | 132   | 132   | 165   | 165   |
| H     | 26    | 26    | 26    | 26    | 26    |
| KG    | 4.1   | 4.5   | 5.4   | 7.6   | 8.9   |

| DN    | 150   | 200   | 250   |
|-------|-------|-------|-------|
| SERVO | TCR20 | TCR40 | TCR40 |
| A     | 56    | 60    | 68    |
| B     | 413   | 429   | 532   |
| C     | 160   | 160   | 160   |
| D     | 270   | 270   | 270   |
| H     | 26    | 15    | 80    |
| KG    | 17.1  | 22.8  | 37.5  |

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

|                                                                                                                                          |                   |                    |                                |                     |            |      |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|--------------------------------|---------------------|------------|------|
|                                                                                                                                          |                   |                    |                                | Ajout DN150-200-250 | 29/03/2021 | A    |
| Ech: /                                                                                                                                   | Date : 29/01/2020 | Dessiné par : E.D. | Tolérances générales : +/- 0.2 | Modifications       | Date       | REV. |
| ROBINET A PAPILLON 1135/BUTTERFLY VALVE 1135 +<br>SERVOMOTEUR TCR/ELECTRIC ACTUATOR TCR                                                  |                   |                    |                                | Matière :           |            |      |
|                                                                                                                                          |                   |                    |                                | Poids (Kg) :        |            |      |
|                                                                                                                                          |                   |                    |                                | Traitement : SANS   |            |      |
|  45, Rue du Ruisseau<br>38297 SAINT QUENTIN FALLAVIER |                   |                    |                                | Plan n° Ens 1422A   |            |      |

# TCR-N ELECTRICAL ACTUATOR

## FEATURES

The TCR-N electric actuators are intended for motorising  $\frac{1}{4}$  turn valves with a torque of 15, 20, 50, 110, 200 or 400 Nm. With a compact construction and plastic housing, they are especially well suited for motorising ball valves and butterfly valves. Several variants offer advanced functions. IP67 leak-tightness: to be used indoors and, possibly, outdoors under a shelter. Possible installation in parallel. Manual control with a key.

## AVAILABLE MODELS

Supply voltages: 230V AC, 24V AC/DC, 12V DC.

Dual frequency : 50Hz, 60Hz.

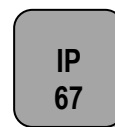
## LIMITS OF USE

|                     |                         |
|---------------------|-------------------------|
| IP Code             | IP 67                   |
| Ambient temperature | - 20°C / +60°C          |
| Service factor      | S4 - 50% (TCR 02-05-11) |
|                     | S3 - 85% (TCR 20-40)    |



## MECHANICAL FEATURES

|                   |                                   |
|-------------------|-----------------------------------|
| Gear box          | treated steel pinions             |
| Torques           | 15 - 20 - 50 - 110 - 200 - 400 Nm |
| Angle of rotation | 90° +/- 2°                        |
| Declutching       | Without (TCR 02-05-11)            |
|                   | With (TCR 20-40)                  |
| Override control  | By key                            |



| Actuator             | TCR 02N           |           |               | TCR 05N           |           |               |
|----------------------|-------------------|-----------|---------------|-------------------|-----------|---------------|
| Torques (Nm)         | 15                | 20        | 20            | 50                |           |               |
| Voltage              | 12V DC            | 24V AC-DC | 95-265V AC-DC | 12VDC             | 24V AC-DC | 95-265V AC-DC |
| Manoeuvring time (s) | 15                | 10        | 10            | 12                | 12        | 12            |
| ISO 5211:            | F03/F05 - star 11 |           |               | F05/F07 - star 14 |           |               |

| Actuator             | TCR 11N           |           |               | TCR 20N           |           |               | TCR 40N           |           |               |
|----------------------|-------------------|-----------|---------------|-------------------|-----------|---------------|-------------------|-----------|---------------|
| Torques (Nm)         | 110               |           |               | 200               |           |               | 400               |           |               |
| Voltage              | 12V DC            | 24V AC-DC | 95-265V AC-DC | 12VDC             | 24V AC-DC | 95-265V AC-DC | 12V DC            | 24V AC-DC | 95-265V AC-DC |
| Manoeuvring time (s) | 10                | 10        | 10            | 25                | 25        | 25            | 25                | 25        | 25            |
| ISO 5211:            | F05/F07 - star 17 |           |               | F07/F10 - star 22 |           |               | F07/F10 - star 22 |           |               |

Information given as an indication only, and subject to possible modifications

|  |                                                                                                                                                                                                                                                                                  |       |             |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | SECTORIEL S.A.<br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Pages | 1/8         |
|  |                                                                                                                                                                                                                                                                                  | Ref.  | TDS2411 ENG |
|  |                                                                                                                                                                                                                                                                                  | Rev.  | 08          |
|  |                                                                                                                                                                                                                                                                                  | Date  | 05/2025     |

# TCR-N ELECTRICAL ACTUATOR

## ELECTRICAL FEATURES

| Actuator              | TCR 02N                   | TCR 05N             |
|-----------------------|---------------------------|---------------------|
| Motor protection      | Thermal switch            |                     |
| Limit switches        | 2 adjustable switches     |                     |
| Auxiliary switches    | 2 adjustable dry switches |                     |
| Anti-condensation     | integrated                |                     |
| Electrical connection | PE M10 + 1.5m cable       | PE M20 + 1.5m cable |

| Actuator            | TCR 02N |           |               | TCR 05N |             |               |
|---------------------|---------|-----------|---------------|---------|-------------|---------------|
| Voltage             | 12V DC  | 24V AC-DC | 95-265V AC-DC | 12V DC  | 24V AC-DC   | 95-265V AC-DC |
| Power (W)           | 15      | 15        | 15            | 25      | 25          | 25            |
| Current (A)         | 1,5     | 1,5       | 0,09          | 1,67    | 0,18 - 0,37 |               |
| Fuse Protection (A) | 5       | 5         | 1             | 8       | 1 - 2       |               |

| Actuator              | TCR 11N                   | TCR 20N                 | TCR 40N                 |
|-----------------------|---------------------------|-------------------------|-------------------------|
| Motor protection      | Thermal switch            |                         |                         |
| Limit switches        | 2 adjustable switches     |                         |                         |
| Auxiliary switches    | 2 adjustable dry switches |                         |                         |
| Anti-condensation     | Integrated                |                         |                         |
| Electrical connection | 2 x PE M14 + 1,5m cable   | 2 x PE M20 + 1.5m cable | 2 x PE M20 + 1,5m cable |

| Actuator            | TCR 11N |           |               | TCR 20N |           |               | TCR 40N |           |               |
|---------------------|---------|-----------|---------------|---------|-----------|---------------|---------|-----------|---------------|
| Voltage             | 12V DC  | 24V AC-DC | 95-265V AC-DC | 12V DC  | 24V AC-DC | 95-265V AC-DC | 12V DC  | 24V AC-DC | 95-265V AC-DC |
| Power (W)           | 100     | 100       | 100           | 50      | 50        | 50            | 80      | 80        | 80            |
| Current (A)         | 2,5     | 0,3 – 0,6 | 2             | 0,22    | 3,3       | 0,36          |         |           |               |
| Fuse Protection (A) | 5       | 2 - 3     | 3             | 5       | 8         | 2             |         |           |               |

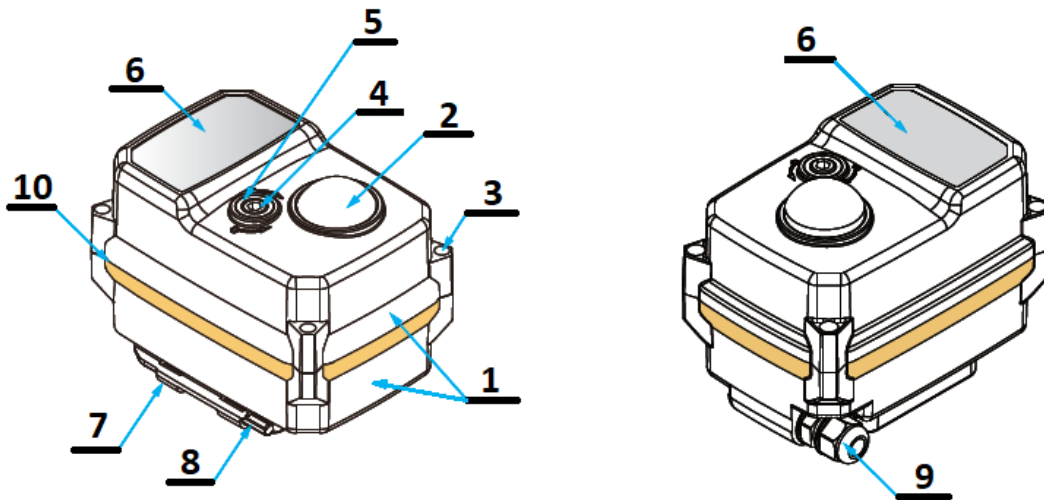
Information given as an indication only, and subject to possible modifications

|                                                                                     |                                                                                                                                                                                                                                             |       |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : sectoriel@sectoriel.fr | Pages | 2/8         |
|                                                                                     |                                                                                                                                                                                                                                             | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                             | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                             | Date  | 05/2025     |

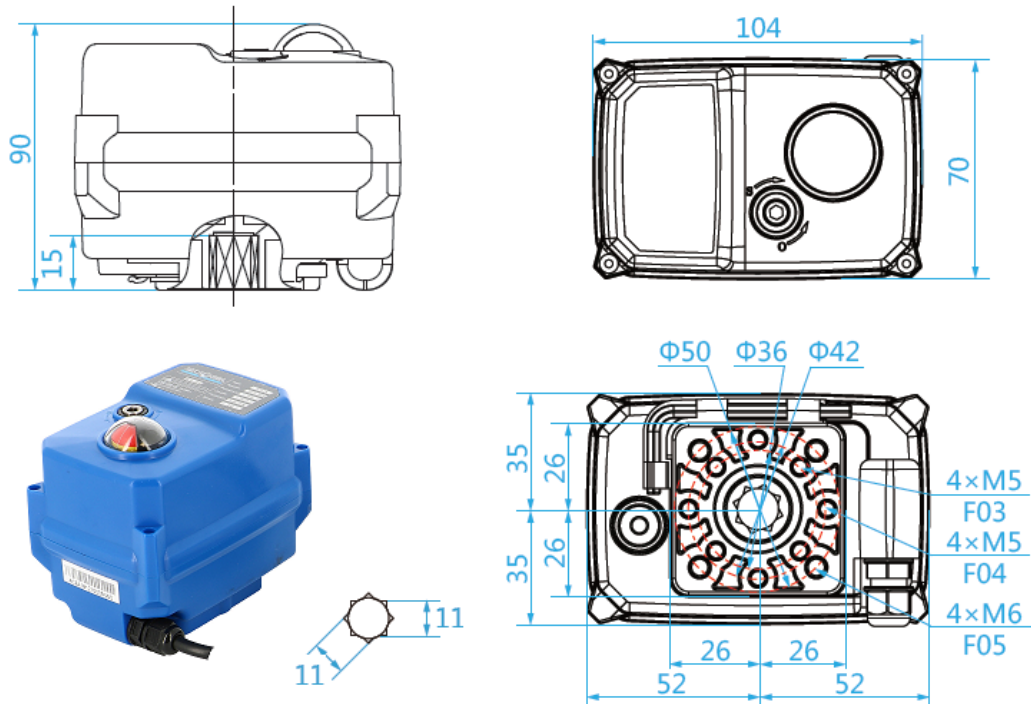
# TCR-N ELECTRICAL ACTUATOR

## CONSTRUCTION (TCR-02N)

| TCR-02N            |                     |                       |     |               |               |
|--------------------|---------------------|-----------------------|-----|---------------|---------------|
| No.                | Name                | Material              | No. | Name          | Material      |
| 1                  | Casing + lid        | Plastic (ABS)         | 6   | Rating plate  | PVC           |
| 2                  | Position indicator  | Polycarbonate plastic | 7   | Key support   | Plastic (ABS) |
| 3                  | Screw x 4           | Aisi 304              | 8   | Hex key       | Steel         |
| 4                  | Backup control stem | Aisi 304              | 9   | Packing gland | Nylon         |
| 5                  | Gasket              | NBR                   | 10  | Cover gasket  | NBR           |
| Weight (kg): 0.620 |                     |                       |     |               |               |



## DIMENSIONS (mm)



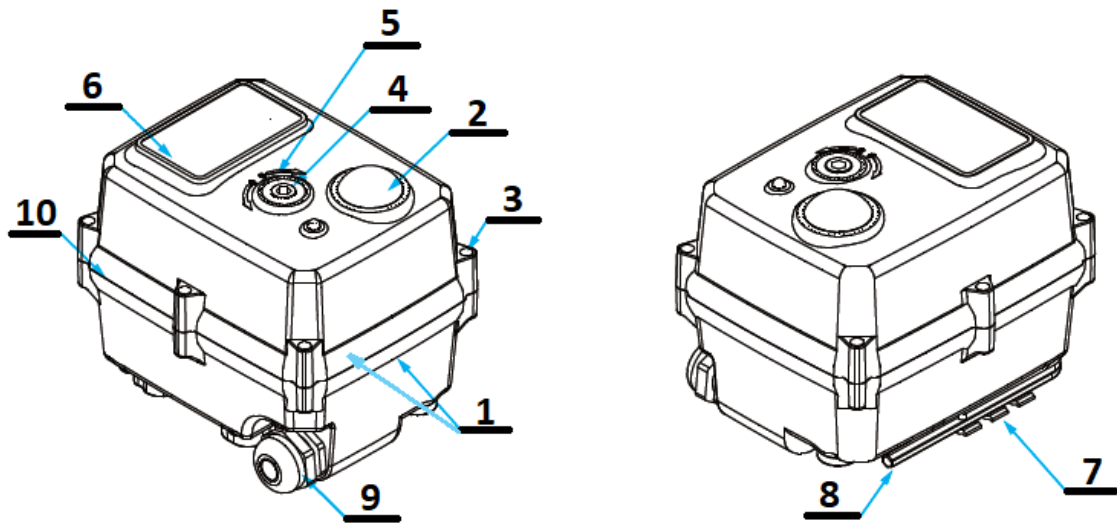
Information given as an indication only, and subject to possible modifications

|                                                                                     |                                                                                                                                                                                                                                                                                         |       |             |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Pages | 3/8         |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Date  | 05/2025     |

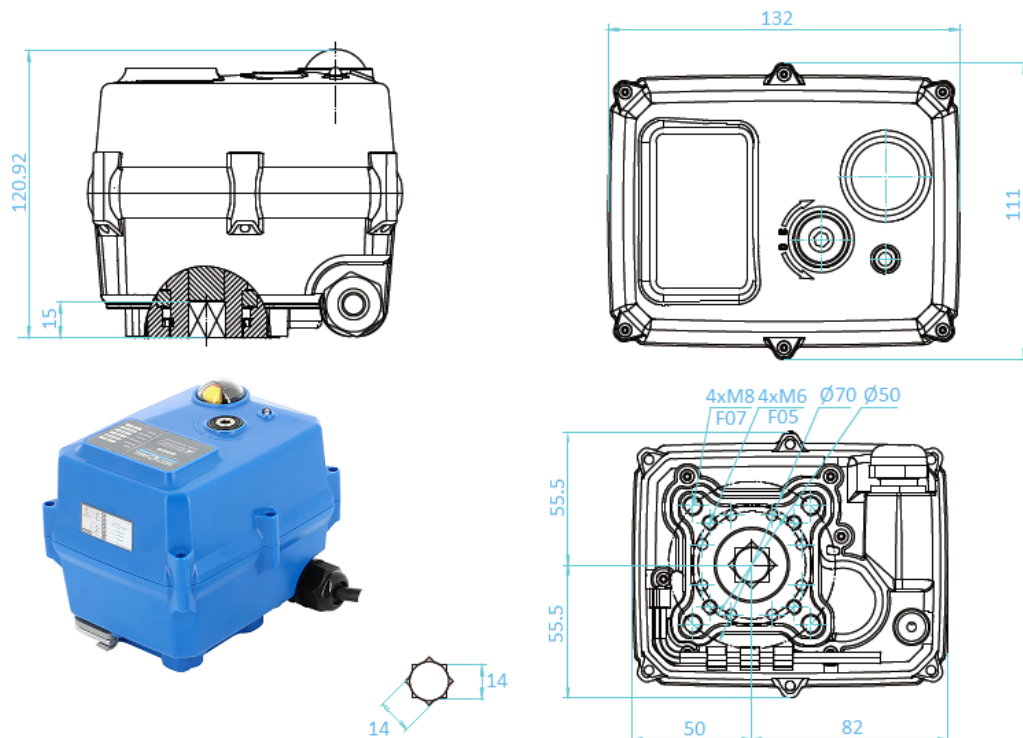
# TCR-N ELECTRICAL ACTUATOR

## CONSTRUCTION (TCR-05N)

| TCR-05N            |                     |                       |     |               |               |
|--------------------|---------------------|-----------------------|-----|---------------|---------------|
| No.                | Name                | Material              | No. | Name          | Material      |
| 1                  | Casing + lid        | Plastic (ABS)         | 6   | Rating plate  | PVC           |
| 2                  | Position indicator  | Polycarbonate plastic | 7   | Key support   | Plastic (ABS) |
| 3                  | Screw x 6           | Aisi 304              | 8   | Hex key       | Steel         |
| 4                  | Backup control stem | Aisi 304              | 9   | Packing gland | Nylon         |
| 5                  | Gasket              | NBR                   | 10  | Cover gasket  | NBR           |
| Weight (kg): 1.800 |                     |                       |     |               |               |



## DIMENSIONS (mm)



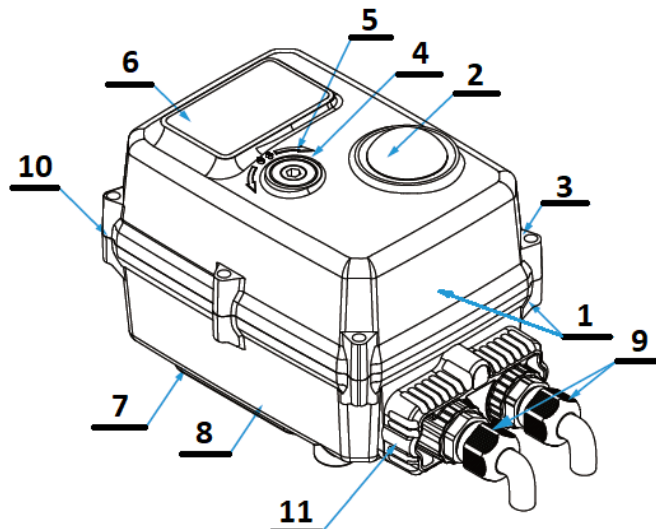
Information given as an indication only, and subject to possible modifications

|                                                                                     |                                                                                                                                                                                                                                             |       |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : sectoriel@sectoriel.fr | Pages | 4/8         |
|                                                                                     |                                                                                                                                                                                                                                             | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                             | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                             | Date  | 05/2025     |

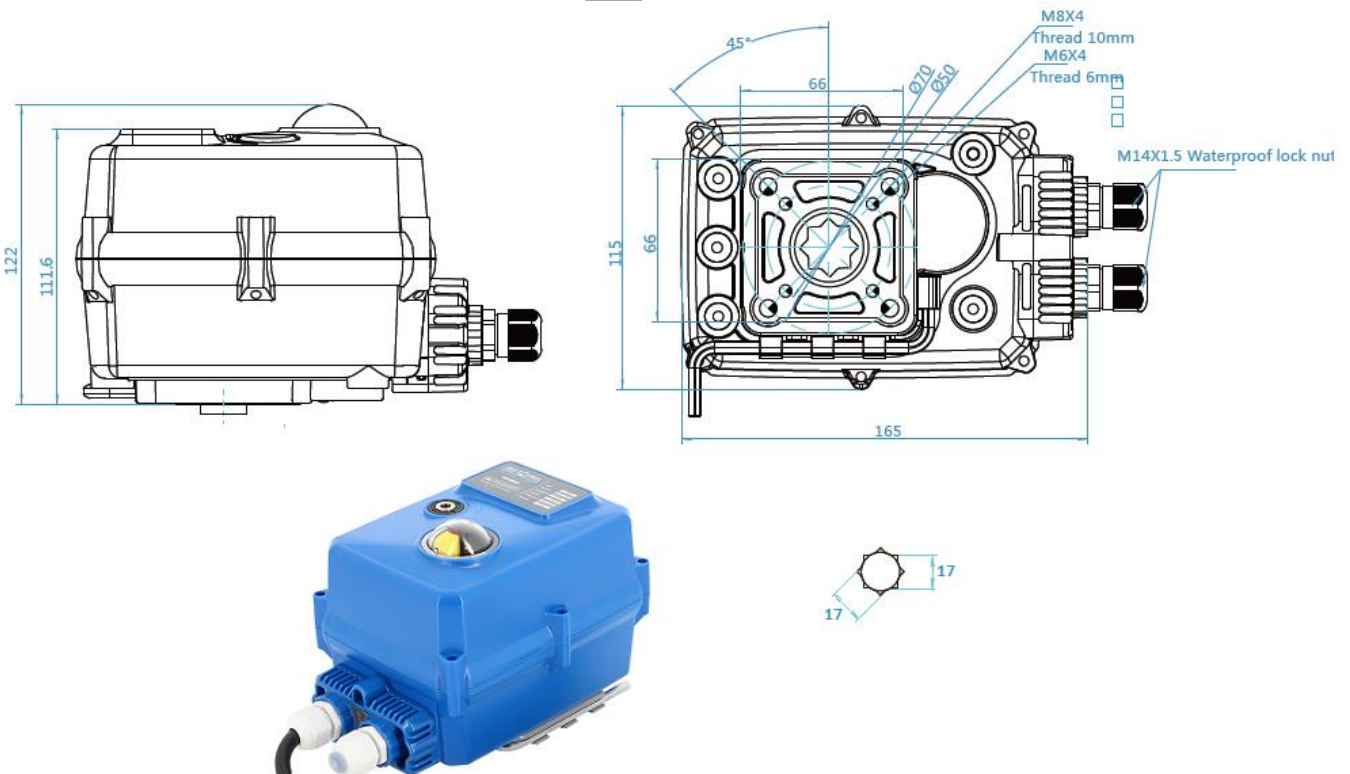
# TCR-N ELECTRICAL ACTUATOR

## CONSTRUCTION (TCR-11N)

| TCR-11N            |                     |                       |     |                  |               |
|--------------------|---------------------|-----------------------|-----|------------------|---------------|
| No.                | Name                | Material              | No. | Name             | Material      |
| 1                  | Casing + lid        | Plastic (ABS)         | 6   | Rating plate     | PVC           |
| 2                  | Position indicator  | Polycarbonate plastic | 7   | Key support      | Plastic (ABS) |
| 3                  | Screw x 6           | Aisi 304              | 8   | Hex key          | Steel         |
| 4                  | Backup control stem | Aisi 304              | 9   | X 2Packing gland | Nylon         |
| 5                  | Gasket              | NBR                   | 10  | Cover gasket     | NBR           |
| Weight (kg): 2.200 |                     |                       | 11  | Cable gland unit | Plastic (ABS) |



## DIMENSIONS (mm)



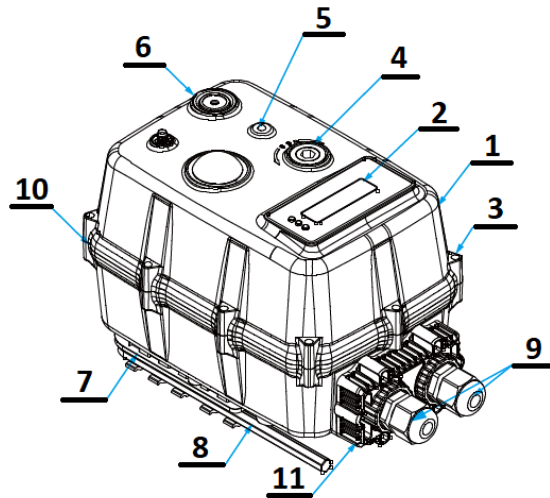
Information given as an indication only, and subject to possible modifications

|                                                                                     |                                                                                                                                                                                                                                                                                         |       |             |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Pages | 5/8         |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Date  | 05/2025     |

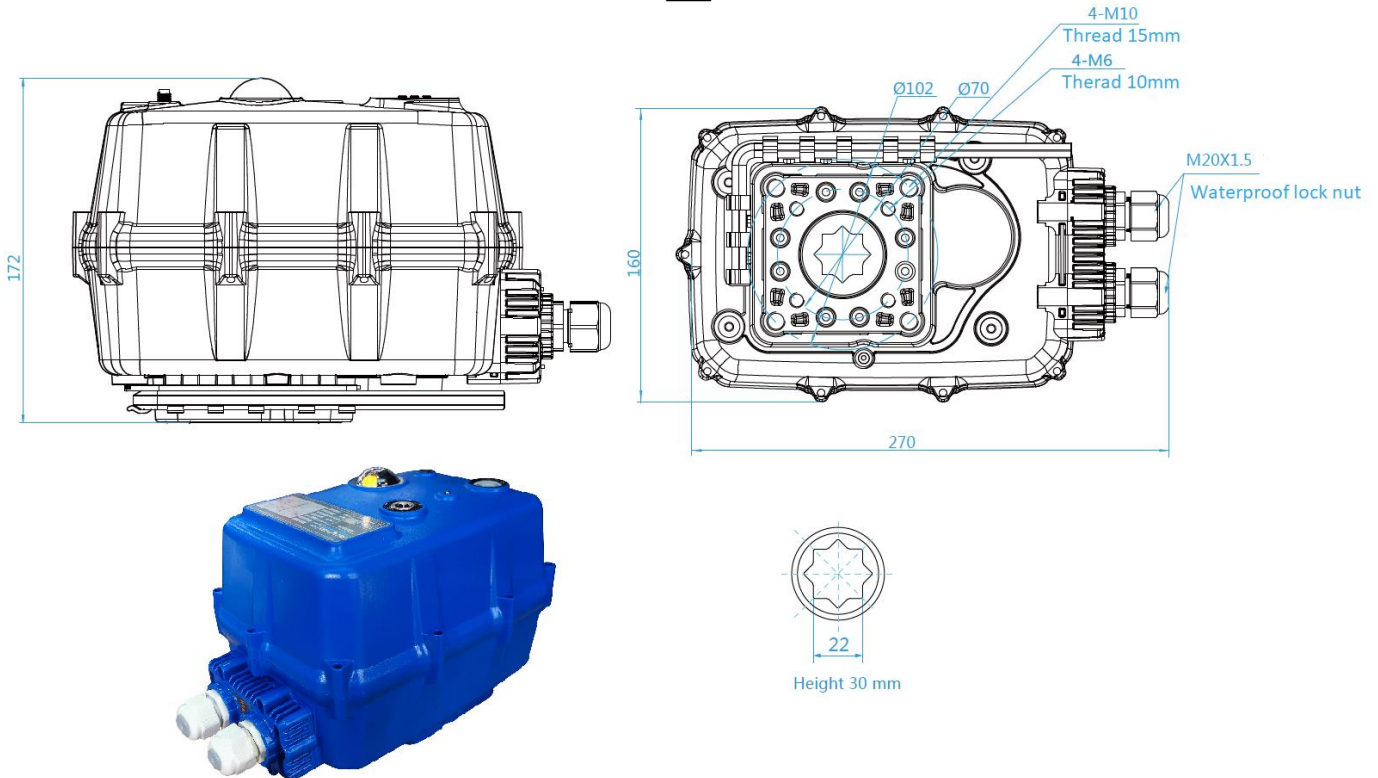
# TCR-N ELECTRICAL ACTUATOR

## CONSTRUCTION (TCR-20N / TCR-40N)

| TCR-20N / TCR-40N   |                     |                       |     |                  |                      |
|---------------------|---------------------|-----------------------|-----|------------------|----------------------|
| No.                 | Name                | Material              | No. | Name             | Material             |
| 1                   | Casing + lid        | PC + PET              | 6   | Clutch           | Polyoxymethylene POM |
| 2                   | Position indicator  | Polycarbonate plastic | 7   | Key support      | Plastic ABS          |
| 3                   | Screw x 6           | Aisi 304              | 8   | Hex key          | Steel                |
| 4                   | Backup control stem | Aisi 304              | 9   | X 2Packing gland | Nylon                |
| 5                   | LED                 | Transparent PC        | 10  | Cover gasket     | NBR                  |
| Weight (Kg) : 6,000 |                     |                       | 11  | Cable gland unit | Plastic ABS          |



## DIMENSIONS (mm)

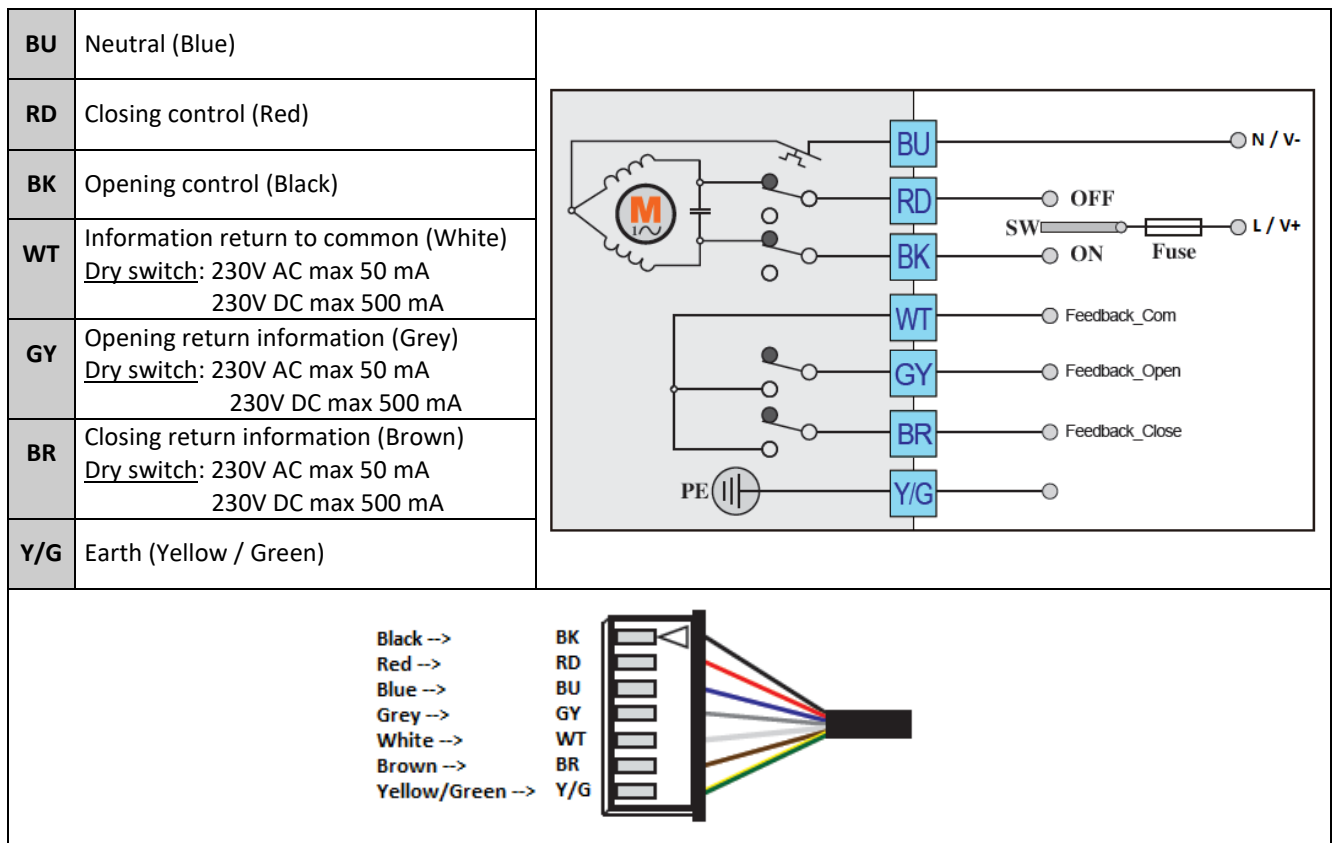


Information given as an indication only, and subject to possible modifications

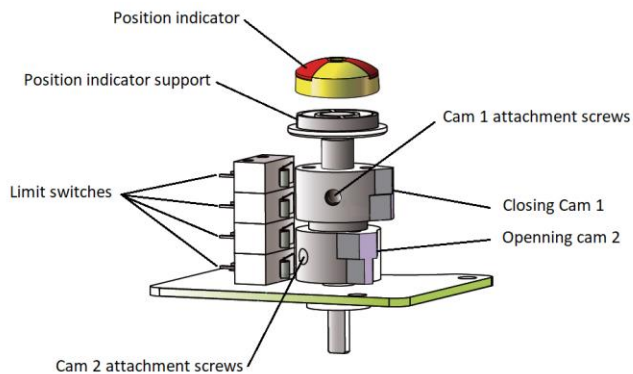
|                                                                                     |                                                                                                                                                                                                                                                                                         |       |             |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : <a href="mailto:sectoriel@sectoriel.fr">sectoriel@sectoriel.fr</a> | Pages | 6/8         |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                                                                         | Date  | 05/2025     |

# TCR-N ELECTRICAL ACTUATOR

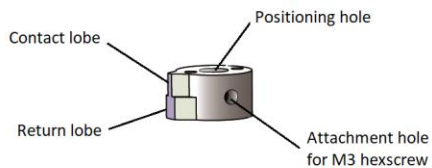
## WIRING DIAGRAM



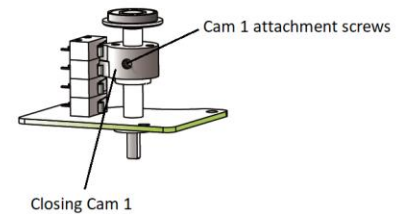
## SWITCH SETTING



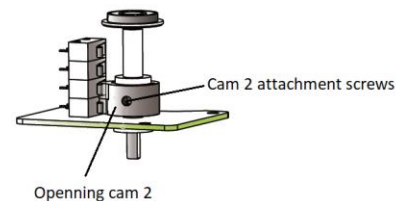
### GENERAL VIEW



### CAM DETAIL



### CLOSING CAM ADJUSTMENT



### OPENING CAM ADJUSTMENT

Information given as an indication only, and subject to possible modifications

|                                                                                     |                                                                                                                                                                                                                                             |       |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : sectoriel@sectoriel.fr | Pages | 7/8         |
|                                                                                     |                                                                                                                                                                                                                                             | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                             | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                             | Date  | 05/2025     |

# TCR-N ELECTRICAL ACTUATOR

## TROUBLESHOOTING

| Defect met                                    | Cause of defect                                                                    | Method of solving                                                                                             |
|-----------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Inactive actuator                             | Non-connected electrical grid.                                                     | Connect to the electrical grid.                                                                               |
|                                               | Wrong voltage.                                                                     | Check the actuator's voltage.                                                                                 |
|                                               | Motor overheating.                                                                 | Check the torque on the valve.                                                                                |
|                                               | Faulty connection.                                                                 | Check the connection to the terminal box.                                                                     |
|                                               | Damaged start capacitor.                                                           | Contact the supplier for repair.                                                                              |
| No switch signal                              | Faulty connection.                                                                 | Check the connections.                                                                                        |
|                                               | Damaged microswitch                                                                | Change the microswitch                                                                                        |
| Valve that is not fully closed                | Use the return signal from the actuator check.                                     | Receiving a return signal does not mean that the actuator is fully closed, hence do not cut the power supply. |
|                                               | The hysteresis increases due to wear or between the actuator and the valve's stem. | Readjust the limit cams.<br>Contact the supplier for repair.                                                  |
| Presence of humidity or water in the actuator | Unsuitable cable cross-section being used.                                         | Contact the supplier for repair.                                                                              |
|                                               | The cable connection is not leak-tight.                                            |                                                                                                               |
|                                               | Worn sealing gaskets.                                                              |                                                                                                               |
|                                               | Loose cover screws.                                                                | Dry the internal parts and tighten the cover screws.                                                          |

Information given as an indication only, and subject to possible modifications

|                                                                                     |                                                                                                                                                                                                                                             |       |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|
|  | <b>SECTORIEL S.A.</b><br>45 rue du Ruisseau<br>38290 SAINT QUENTIN-FALLAVIER – FRANCE<br>Telephone: +33 4 74 94 90 70 - Fax: +33 4 74 94 13 95<br><a href="http://www.sectoriel.com">www.sectoriel.com</a> / Email : sectoriel@sectoriel.fr | Pages | 8/8         |
|                                                                                     |                                                                                                                                                                                                                                             | Ref.  | TDS2411 ENG |
|                                                                                     |                                                                                                                                                                                                                                             | Rev.  | 08          |
|                                                                                     |                                                                                                                                                                                                                                             | Date  | 05/2025     |