REMOTE CONTROL has been manufacturing actuators since 1961

RCEL005 / RCEL006-250

High quality electric actuators

Technical Data

- For On – Off regulation
- Torque range: 50 Nm – 2,452 Nm. 443 lbf.in – 21,702 lbf.in
- Mounting kits for all 90º valves. RCEL006-250 also for 120º, 135º, 180º, 270º, 300º.
- Connections and hole constellations in compliance with International standard: ISO5211 (DIN 3337) and DIN 79.
- Permanently lubricated and self locking gear drive.
- Temp: RCEL005: -20 º to +70 ºC
  RCEL006-250: -30 º to +70 ºC
- Feed Voltage:
  RCEL005: 24 VDC (Option 24 VAC). 110 / 230 VAC, 1-phase
  380/400/440 VAC, 3-phase.
- Safety Class:
  RCEL005: IP 68.
  RCEL006-250: IP 67 (Option 68)
- CE labelled.
- Approval CSA - UL.
- ATEX (Option).
- Manual Override in case of power failure.
- Smooth running.
- Compact proportions.
- Built-in heater preventing condensation.
- Housing made from centrifugally cast anodized and epoxy painted aluminium.
- Long life, maximum dependability.

RCEL – series meet all International Standards for easy and quick mounting of actuators on valves.

The RCEL Actuator has a smooth and easy operation which considerably increases the life expectancy of the valve.

The technical advantages of the electrical actuators produced by Remote Control are much appreciated by our customers.

“Power Start”
The RCEL-series has an unique rising of the rpm prior to start which results in a higher starting torque. This is necessary when valves have been sitting idle for a long time and initially need more force to be manoeuvred.

RCEL006-250 is also available with extended rotation angle and in explosion-safe design.

Accessories such as local control units or digital regulation cards and positioners can easily be installed.
**RCEL005 - Compact - Adaptable - 50 Nm**

- **Limit Switches**
  - 2 potential-free Switches
  - 2 limit-position Switches

- **Indicator**
  - Illuminated indicator for visual indication of end position

- **Connection**
  - Vibration-safe plinths
  - No special tools needed

- **Space Heater**
  - Prevents condensation

- **Cable input**
  - M20 x 1.5

- **Highest Surface Finish**
  - Centrifugally cast aluminium
  - Externally and internally anodized
  - Dry Powder Epoxy painted

- **Motor**
  - Fully enclosed
  - Quiet operation
  - Thermal motor protection

- **Screws**
  - External screws stainless steel

- **Self-locking gears**
  - Mechanical breaks not needed
  - Permanently lubricated

- **Emergency Operation**
  - Manually with 6 mm hex key.

- **Mounting Flange**
  - ISO 5211 (DIN 3337)
  - F03 - F05 - F07

- **High casing on RCEL 005 L**
  - To facilitate mounting of accessories

- **Rotation axle**
  - Complies with International standard for square spindles, ISO 5211 and DIN 79, 14 mm

**Remote Control**

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RCEL006-250 - The strong choice - Up to 2,450 Nm - Even EEx

- Indicator
  For visual indication of end position
  EEx design without dome

- Limit Switches
  2 potential-free Switches
  2 limit-position Switches

- Space Heater
  Prevents condensation

- Torque Switches
  Open / Closed position
  (RCEL015-250)

- Screws
  External screws
  stainless steel

- Self-locking gears
  Mechanical breaks not needed
  Permanently lubricated

- Highest Surface Finish
  Centrifugally cast aluminium
  Externally and internally anodized
  Dry Powder Epoxy painted

- Motor
  Fully enclosed
  Quiet operation
  Thermal motor protection

- Connection
  Vibration-safe plinths
  No special tools

- Manual Override
  Hand Wheel
  Manually employed and automatically declutched

- Puller
  Easy dismantling of the driving bush by use of existing screws, no puller needed.

- Individualized Mounting Angle
  For each 45º
  8 screws

- Mounting Flange
  ISO 5211 (DIN 3337)
  F07, F10, F12, F14, F16

- Driving Bush enclosed
  Delivered unfinished (without holes, for your own adaptation)
  or adapted to International standard for square spindles, DIN 79, Standard from 22 to 75.
  Can be adapted according to customer specification.

- Cable input
  M20 x 1.5

- End of travel stops
  Mechanical and adjustable
### Dimensions RCEL005 - 005L

<table>
<thead>
<tr>
<th>Type</th>
<th>Torque Nm</th>
<th>Flange ISO 5211</th>
<th>D Max Ø mm</th>
<th>Std hole / axle mm</th>
<th>Total height mm</th>
<th>Total width mm</th>
<th>Total depth mm</th>
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</thead>
<tbody>
<tr>
<td>005</td>
<td>50</td>
<td>F03-05-07</td>
<td>Ø14</td>
<td></td>
<td>148</td>
<td>168</td>
<td>132</td>
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<tr>
<td>005L</td>
<td>50</td>
<td>F03-05-07</td>
<td>Ø14</td>
<td></td>
<td>208</td>
<td>168</td>
<td>132</td>
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</table>

**RCEL005**

![RCEL005 Diagram](image1)

**RCEL005L**

![RCEL005L Diagram](image2)

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- 4 -
### Dimensions RCEL006 - 250

<table>
<thead>
<tr>
<th>Type</th>
<th>Torque Nm</th>
<th>Flange ISO 5211</th>
<th>D Max Ø mm</th>
<th>Std hole / axle mm</th>
<th>Total height mm</th>
<th>Total width mm</th>
<th>Total depth mm</th>
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<tbody>
<tr>
<td>RCEL 006</td>
<td>58</td>
<td>F07</td>
<td>22</td>
<td>□ 17</td>
<td>273</td>
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<td>F07</td>
<td>22</td>
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<td>147</td>
<td>F07-F10</td>
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<td>RCEL 028</td>
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<td>F10-F12</td>
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<td>□ 22</td>
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<td>F10-F12</td>
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<td>F10-F12</td>
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<td>F12-F14</td>
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<td>981</td>
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<td>RCEL 150</td>
<td>1471</td>
<td>F14-F16</td>
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<td>F14-F16</td>
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<td>□ 36</td>
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<td>F14-F16</td>
<td>75</td>
<td>□ 36</td>
<td>556</td>
<td>388</td>
<td>318</td>
</tr>
</tbody>
</table>

**RCEL006-100**

- **Width**
- **Height**
- **Max Diameter**
- **Underside**

**RCEL150-250**

- **Width**
- **Height**
- **Max Diameter**
- **Underside**
Adaptation of driving bush
A driving bush is delivered as a standard with all actuators, for customer’s own adaptation or adapted as below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCEL 005-005L</td>
<td>14mm</td>
<td>ISO 5211, DIN 79</td>
</tr>
<tr>
<td>RCEL 006-019</td>
<td>22mm</td>
<td>DIN 79</td>
</tr>
<tr>
<td>RCEL 028-050</td>
<td>32mm</td>
<td>DIN 79</td>
</tr>
<tr>
<td>RCEL 060-100</td>
<td>42mm</td>
<td>DIN 79</td>
</tr>
<tr>
<td>RCEL 150-250</td>
<td>75mm</td>
<td>DIN 79</td>
</tr>
</tbody>
</table>

Remote Control has blueprints of more than 6,000 different valves for manufacturing valve adaption kits. Remote Control also offers adapted driving bushes according to customer requirements.

Mounting kit, console and driving bush
When direct mounting is not possible.

- Standard design according to ISO 5211 and DIN 3337.
- Measurements F07, F10, F12, F14, F16.

Individually adapted to valves according to customer specifications.

Mounting actuator on valve.
Remote Control offers mounting of the actuator onto the valve. The complete unit is calibrated and test run prior to delivery.

PIU. Potentiometer kit
For modulating actuators. Continually monitors the actuator position throughout the full rotation motion. PIU is built into the actuator at factory. Can also be mounted later.

Available to RCEL005L and RCEL006-250 and EEx-Actuators. Mounting details are enclosed.

Operating panel
Customized control panel.
CPT. Continuous Position Transmitter
For externally controlled actuators.
4 – 20 mA, 0 – 1 kΩ, R/I converter. Safety class IP 67.
RCEL 005L: To be ordered as a complete unit.
RCEL 006-009: CPT built into the PCU housing.
RCEL 015-250: CPT built into the actuator.
Not for EEx – actuators.

PCU PB90. Position Control Unit for RCEL 006 - 250
4 – 20 mA or 0 – 10 V input signal; split range
Return signal 4 – 20 mA, max load 300Ω.
Safety Class IP 67.
For 3-phase 380/500V:
RCEL 006-019: PCU PB90 built into the PCU housing
RCEL 028-250: PCU PB90 built into the actuator.
For 24VDC:
RCEL 006-019: PCU PB90 build into the PCU housing.
RCEL 028: PCU PB90 build into the actuator.
Not for EEx – actuators.

LCU1. Local Control Unit for RCEL 006 – 250.
Lockable 3-position handle for choice of local control.
Open – Stop – Close.
The handle is mounted in a separate housing.
Safety Class IP65.
RCEL 005L: To be ordered as a complete Unit.
LCU1 can be delivered for wall mount.
Not for EEx – actuators.

LCU2. Local Control Unit for RCEL 006 – 250.
2- and 3-position handle for choice of remote or local control.
The handle is mounted in a separate, lockable housing made from transparent polycarbonate.
LED indication.
230 VAC
380 VAC
Safety Class IP 66.
LCU2 can be delivered for wall mounting.
Not for EEx - actuators
**PCU DHC-100D. Digital modulating card / High performance Positioning Kit.**

Resolution: 450 points per 90° movement.

Is mounted in the actuator at delivery if requested, can also easily be mounted later.

Input signal: 4 – 20 mA, 0 - 5V, 1 – 5V and 0 – 10V.

Easily calibrated with buttons on the front panel.

Simple configuring of all parameters.

Optional rotation direction.

Adaptable control function continually modulating the load of the electric actuator.

Safety function for overloading (detection).

Faulty signal indicated by flashing LED.

Eliminates overload through operation-time protection.

Programmable function wrong input signal open, stop or close.

Can be combined with transmitter type OTX-100 or OTR-100 for return signal 4 – 20 mA.

For 1-phase 230 V, not for EEx-Actuators or actuator RCEL 005 with low cover.

**OTX-100. Transmitter for return signal.**

Return signal: 4-20 mA.

Simple installation. Plugged directly into PCU DHC-100D.

Eliminates extra wiring. Easily calibrated with buttons on the PCU DHC-100D.

Voltage or current output can be adjusted to optional range within 0 – 10 V DC with steps of 0,0016 V or within 0 – 20 mA with steps of 0,0031 mA.

OTX-100 can be mounted at a later point in time.

For 1-phase 230 V, not for EEx- actuators.

**OTR-100. Transmitter for return signal and faulty information.**

Return signal 4 – 20 mA.

Simple installation. Plugged directly into PCU DHC-100D.

Eliminates extra wiring. Easily calibrated with buttons on the PCU DHC-100D.

Voltage or current output can be adjusted to optional range within 0 – 10 V DC with steps of 0,0016 V or within 0 – 20 mA with steps of 0,0031 mA.

Relay outputs, 2 pcs programmable + 1 pc for faulty function alarm

OTR-100 can be mounted at a later point in time.

For 1-phase 230 V, not for EEx – actuators.

**AMM-100. Manual Override Module.**

Makes it possible to combine Local Control Unit type LCU1 with Position Control Unit PCU DHC 100D.

Simple installation. 2-thread communication.

Can be combined with push buttons or handle.

AMM-100 can be mounted at a later point in time.

For 1-phase 230 V, not for EEx – actuators.
Advantages with RCEL actuators

**Strength:**
“Power Start” delivers higher torque during the start.
Consultation worldwide.
Technical support from specialists, and direct customer support.
Service / spare parts from factory.
Training in the factory or at the customer’s location.

**Safety:**
CE labelled.
Approval CSA –UL.
ATEX (option). RCEL006-250.
Self locking gear.
Manual override wheel in case of power loss. (RCEL006-250)
Allen key for manual operation. (RCEL005-005L)
4 Limit Switches as standard, of which 2 pcs are potential free.
Thermal motor protection. (Not for 24VDC).
Mechanical end of travel stops.
Vibration-safe plinths.

**Delivery:**
Fast deliveries from warehouse in Falun, Sweden.
Delivery inspection of all Actuators.
Unattached Actuators have basic settings at delivery.
Actuators mounted on valves are calibrated before delivery.

**Warranty:**
1 year warranty

**Mounting:**
Compact dimensions on the Actuators.
Remote Control has blueprints for the manufacturing of more than 6000 different valve adaption kits.
Customer adapted special applications.
Mounting Kits: International standard ISO 5211, DIN 79 and DIN 3337.

**Material Quality:**
Centrifugally cast aluminium.
Exterior and interior anodized.
Dry powder painted.
Fully enclosed, low noise motor.
Built-in heater preventing condensation.
Stainless steel.
QUALITY - RELIABILITY - STRENGTH

Quality
Remote Control is certified according to ISO 9001 and ISO 14001. All Remote Control electric actuators are manufactured under rigorous quality control. The RCEL Actuators comply with all International standard demands. All products are CE-labelled and manufactured according to EMC and the ATEX-directive. The recognized high quality of RCEL’s Actuators safeguards Actuators of Highest Class to our customers.

Reliability
The design is simple and robust. We only use material of the highest quality in manufacturing, which results in Actuators with high life expectancy.

Strength
RCEL Actuators are strong and unique. The secret lies in the “Power Start” which gives an increased torque during the start-up mode, exactly when the valve needs the most force.

“As a distributor of Remote Control I have sold their products in many parts of Europe for a number of years.

I myself and my customers appreciate the quality, the prompt deliveries and the good service.

On several occasions I have visited Remote Control in Falun, Sweden, accompanied by customers for special training.

We have appreciated finding a business that both make sure the customer gets the best product on the market and, at the same time, the employees have a safe and pleasant workplace”.

Richard Lang.
Managing Director.
RWL, Austria.
Remote Control quality system ISO 9001 also encompass packing and delivery.