RCEL005 / RCEL006-250
High quality electric actuators

ROTORK SWEDEN has been manufacturing actuators since 1961

Technical Data

- For On-Off regulation.
- Torque range: 50 Nm - 2,452 Nm. 443 lbf.in - 21,702 lbf.in.
- Mounting kits for all 90° valves. RCEL006-250 also for 120°, 135°, 180°, 270° och 300°.
- 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° to + 70 °C RCEL006-250: -30 to + 70 °C
- Feed Voltage:
  - 380/400/440 VAC, 3-phase.
- Safety Class:
  - RCEL005: IP 67
  - RCEL006-250: IP 67 (Option 68)
- CE labelled.
- Approval CSA - UL.
- ATEX (Option).
- 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.

www.rotork.com www.remotecontrol.se
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

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

High casing on RCEL005L
To facilitate mounting of accessories

www.rotork.com  www.remotecontrol.se
RCELE006-250 - The strong choice - Up to 2,450 Nm - Even EEEx

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

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

Space Heater
Prevents condensation

Torque Switches
Open/Closed position
(RCELE015-250)

Screws
External screws
stainless steel

Self-locking gears
Mechanical breaks
not needed
Permanently lubricated

Motor
Fully enclosed
Quiet operation
Thermal motor protection

Connection
Vibration-safe plinths
No special tools needed

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 45°
8 screws

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

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

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

Vibration-safe plinths
No special tools needed

External screws
stainless steel
### 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>Totalt depth (mm)</th>
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<tbody>
<tr>
<td>005</td>
<td>50</td>
<td>F03-05-07</td>
<td>14</td>
<td>14</td>
<td>148</td>
<td>168</td>
<td>132</td>
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<td>005L</td>
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<td>F03-05-07</td>
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**RCEL005**

![RCEL005 diagram](image1)

**RCEL005L**

![RCEL005L diagram](image2)
## 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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<tr>
<td>RCEL 006</td>
<td>58</td>
<td>F07</td>
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<td>RCEL 019</td>
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<td>F07 - F10</td>
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<td>F14 - F16</td>
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</table>

### RCEL006-100

![Dimensions Diagram](image1)

### RCEL150-250

![Dimensions Diagram](image2)
Adaptation
A driving bush is delivered as a standard with all actuators, for customers own adaptation or adapted as below.

- RCEL 005-005L: 14 mm, ISO 5211 and DIN 79
- RCEL 006-019: 22 mm, DIN 79
- RCEL 028-050: 32 mm, DIN 79
- RCEL 060-100: 42 mm, DIN 79
- RCEL 150-250: 75 mm, DIN 79

Rotork Sweden has blueprints of more than 6,000 different valves for manufacturing valve adaption kits. Rotork Sweden 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
Rotork Sweden 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, 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.
RCEL005L: To be ordered as a complete unit.
RCEL006-009: CPT built into the PCU housing.
RCEL015-250: 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 300 kΩ.
Safety Class IP 67.
For 3-phase 380/400/440V:
RCEL006-019: PCU PB90 built into the PCU housing.
RCEL028-250: PCU PB90 built into the actuator.
For 24VDC:
RCEL006-019: PCU PB90 built into the PCU housing.
RCEL028: PCU PB90 built into the actuator.
Not for EEx-actuators.

LCU. Local Control Unit for RCEL005L
Integrated in the actuator cover.
Lockable 3-position selector knob for Remote - Stop - Local.
3-position control knob for Open - Stop - Close.
Safety Class IP67.
For On-Off applications.
Not for retro fitting on installed actuators.
Not for Ex-protected actuators.

LCU4 & 5. Local Control Unit for RCEL006-250
Compact epoxy painted aluminium housing.
Lockable 3-position selector knob for Remote - Stop - Local.
3-position control knob for Open - Stop - Close.
LED indicators for Remote - Local - Open - Over Torque - Closed.
Built in anti-condensation space heater.
Safety Class IP67.
LCU 4 for On-Off applications.
LCU 5 for control applications.
For actuator mounting or wall mounting.
Not for Ex-protected actuators.

LCU6 Ex-proof Local Control Unit for RCEL015-250
Epoxy painted aluminium housing.
Lockable 3-position selector knob for Remote - Stop - Local.
Push buttons for Open - Stop - Close.
LED indicators for Remote - Local - Open - Over Torque - Closed.
LCD display.
Built in self diagnostic.
Built in anti-condensation space heater.
Safety Class IP67.
ExdIIBT4 -20°C - +55°C.
Available for On-Off, On-Off with position feed-back signal or Control applications.
Not for retro fitting on installed actuators.
PCU DHC-100D. Digital modulating card.

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 and 0 - 10V.
Easily calibrated with buttons on the front panel.
Simple configuration 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 RCEL005 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 optimal 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.


Makes it possible to combine Local Control Unit type LCU5 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 from Rotork Sweden

**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
Rotork Sweden AB is certified according to ISO 9001 and ISO 14001.
All Rotork Sweden electric actuators are manufactured under rigorous quality control.
The RCEL-actuators comply with all International standard demands.
All products are CE-labeled 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.
Rotork Sweden AB’s quality system ISO 9001 also encompass packing and delivery.
DECLARATION OF CONFORMITY

Manufacturer:
Rotork Sweden AB
Kontrollvägen 15, SE-791 45 FALUN
SWEDEN

Above mentioned is hereby guaranteed
Rotork Sweden AB
Falun 2010 04 21

Phone +46 (0)23-587 00               www.rotork.com                  Fax +46 (0)23-587 45

DECLARATION OF CONFORMITY

Name of the notified body:
Inspecta Sweden AB
Box 30100
SE-104 25 STOCKHOLM
SWEDEN
No 0409

Ulf Kajgård
Quality Manager

DECLARATION OF CONFORMITY

Name of the notified body:
Nemko AS
Norway
No 0470

ATEX Directive, 94/9/EC

Supplier:
Rotork Sweden AB
Kontrollvägen 15, SE-791 45 FALUN
SWEDEN

Products:
RCEL006, RCEL009, RCEL015, RCEL019, RCEL028,
RCEL038, RCEL050, RCEL060, RCEL080, RCEL100

The conformity was checked in accordance with the following harmonised EN standards
CENELEC EN 60079-0: 2009
CENELEC EN 60079-1: 2007
according to the EC type examination certificate Nemko 03 ATEX1342X

Above mentioned is hereby guaranteed
Rotork Sweden AB
Falun 2012 07 05
Ulf Kajgård
Quality Manager

CE-marking according to the Pressure Equipment Directive
PED 97/23/EC

Enviroment Control
ISO 14001:2004

Quality Assurance
ISO 9001:2008

CE-marking according to the ATEX Directive 94/9/EC

We reserve the right to make changes without notice

Ref No 787C / Art No 980787