





ROLLER-SHUTTER OPERATORS

The Centurion Systems industrial **RSO** range has been designed to safely automate extremely heavy roller-shutter doors such as entrances to factories and loading bays. There are four models available, each tailored to suit individual installation requirements.



ROLLER-SHUTTER OPERATOR QUICK SELECTION GUIDE

Whatever your industrial automation requirements, this quick selection guide will help you choose the best operator for the job. Our website also provides a useful calculator for calculating approximate door speed.



Technical Data	RSO5DC	RSO5R3P
Description	Full logic; battery backup	Basic; three-phase
Input voltage	90V - 240V AC	380V AC 3Ø
Shutter mass – maximum	500kg	500kg
Duty cycle	35%	30%
Daily operations – maximum ¹	350	320
Battery backup	✓	-
Can connect ancillary equipment, e.g. Safety Beams, access control components, etc. ²	✓	-
Time-barring and automatic activation	✓	-
Onboard receiver	✓	-

1. Over a 24 hour period

2. For example, Safety Beams, Access Control Equipment



RSO5RE	RSO9V2
Basic; Endurance	Heavy duty
220V - 240V AC	380V AC 3Ø
500kg	900kg
40%	30%
430	320
-	-
-	-
-	-
-	-



RSO INDUSTRIAL ROLLER-SHUTTER OPERATORS

The Centurion Systems industrial **RSO** range has been designed to safely automate extremely heavy roller-shutter doors such as those at entrances to factories and loading bays. There are five models available, each tailor-made to suit individual installation requirements.

RSO5DC: Incorporates an intelligent LCD controller and reliable battery backup for complete power failure autonomy. It can lift shutters weighing up to 500kg.

RSO5R3P: A powerful 380V, three-phase operator capable of delivering greater starting thrust and also boasts an increased duty cycle, for shutters weighing up to 500kg.

RSO5RE: An endurance model ideal for high-volume automation of shutters weighing up to 500kg. The vastly improved duty cycle and high number of possible daily operations are made possible by a ventilated planetary gearbox.

RSO9V2: A heavy-duty model utilising a 380V, three-phase power supply enabling it to lift very heavy shutters weighing up to 900kg.



MAIN FEATURES

Mechanical Features

- Automate heavy roller-shutters; e.g. at entrances to factories, shops and warehouses
 - Rock-solid mounting system
 - Convenient manual operation
 - The **RSO5DC** model incorporates full battery backup and an LCD interface
 - Feature-rich and basic, cost-effective models available
 - Safe and reliable position control
 - Allows for the connection of safety devices and ancillary equipment ¹
 - Integrated ChronoGuard timer functionality (a world first) ¹
 - Onboard CENTURION code-hopping multichannel receiver with selective add and delete ¹
 - Intruder-detection Alarm Modes (a world first) ¹
1. **RSO5DC** only

TECHNICAL SPECIFICATIONS

Technical Data	RSO5DC	RSO5R3P	RSO5RE	RSO9V2
Input voltage	90V - 240V AC, 50Hz	380V AC 3Ø, 50Hz	220V - 240V AC, 50Hz	380V AC 3Ø, 50Hz
Shutter door mass	500kg	500kg	500kg	900kg
Motor voltage	24V DC	380V 3Ø	230V AC	380V 3Ø
Power	220W	360W	375W	550W
Current	4.6A 1Ø	1.5 - 2A 3Ø	3AØ	3.0A at 3Ø
Duty cycle	35%	30%	40%	30%
Temperature protector	70°C	70°C	125°C	120°C
Output shaft rotation	50rpm	35rpm	28rpm	40rpm
Gear ratio	55:1	55:1	64:1	37:1
Gear transmission	Double-row oblique gear	Single-row oblique gear	Double-layer planetary gear	Double-layer oblique gear
Material of gearbox	Aluminium	Aluminium	Cast-iron	Aluminium
Drive type	Chain-driven	Chain-driven	Chain-driven	Chain-driven
Sprocket	9T	9T	9T	10T
Chain	5/8 inch	5/8 inch	5/8 inch	3/4 inch
Length	450mm	500mm	530mm	520mm
Net weight	9.64kg	12.8kg	20.2kg	22.5kg
Gross weight	10.4kg	13.5kg	21kg	24.5kg
Packing dimensions	Length 265mm x Width: 210mm x Height: 570mm	Length 265mm x Width: 210mm x Height: 570mm	Length 260mm x Width: 200mm x Height: 665mm	Length 335mm x Width: 315mm x Height: 630mm

RSO5R3P

RSO5RE

RSO5DC

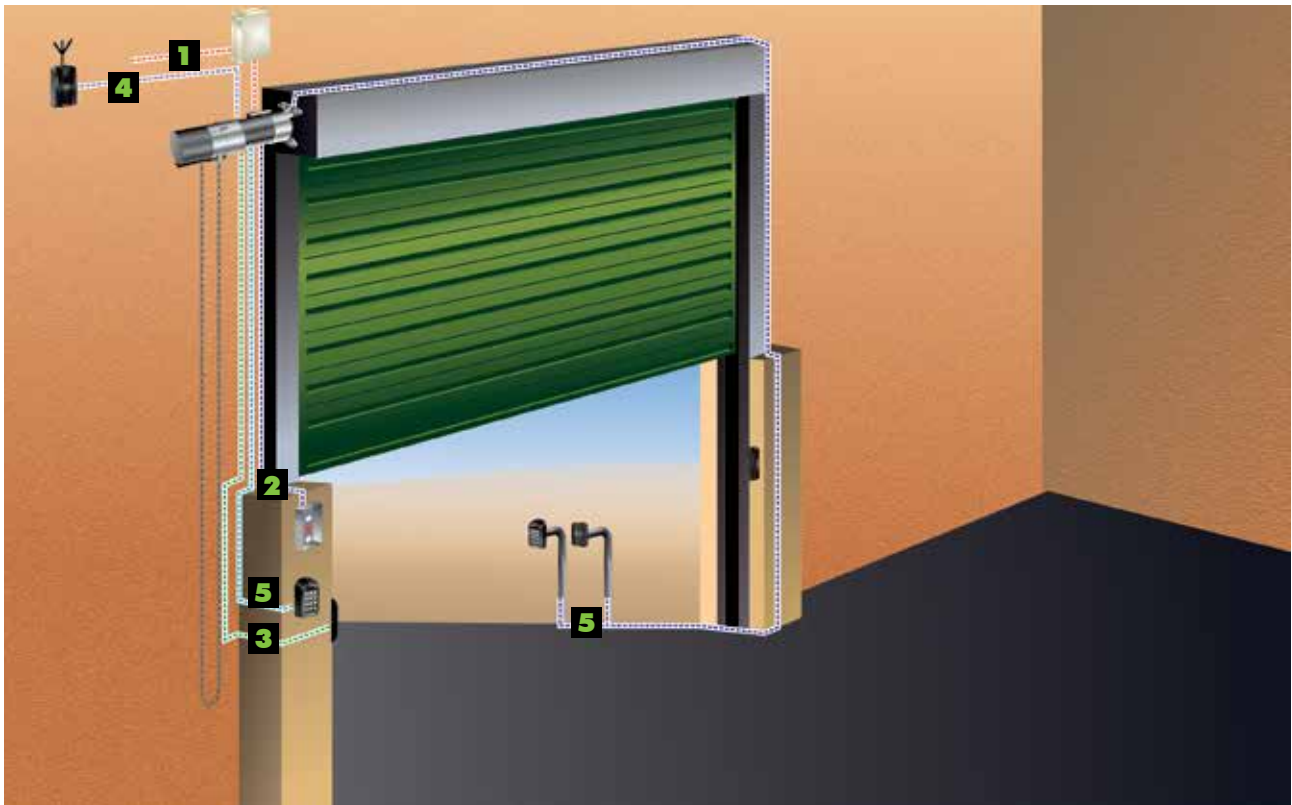
RSO9V2


TECHNICAL SPECIFICATIONS

	RSO5DC	RSO5R3P	RSO5RE	RSO9V2
Maximum shutter weight	500kg	500kg	500kg	900kg
Battery backup	✓	-	-	-
Integrated Wall switch	Uses D-Series controller	✓	✓	✓
Manual override facility	✓	✓	✓	✓
Hand chain	✓	✓	✓	✓
Safety beam input	✓	-	-	-
Input for ancillary devices, e.g. keypads, pushbuttons, etc.	✓	-	-	-
Pillar light input	✓	-	-	-
Autoclose	✓	-	-	-
Onboard receiver	✓	-	-	-
ChronoGuard timer	✓	-	-	-
Modes of operation	Standard, Condo, PIRAC, PLC, Deadman, Reversing	NA	NA	NA
Local test button	✓	-	-	-
Position control	2 x N/O Micro switches	2 x N/C Micro switches	2 x N/C Micro switches	2 x N/C Micro switches

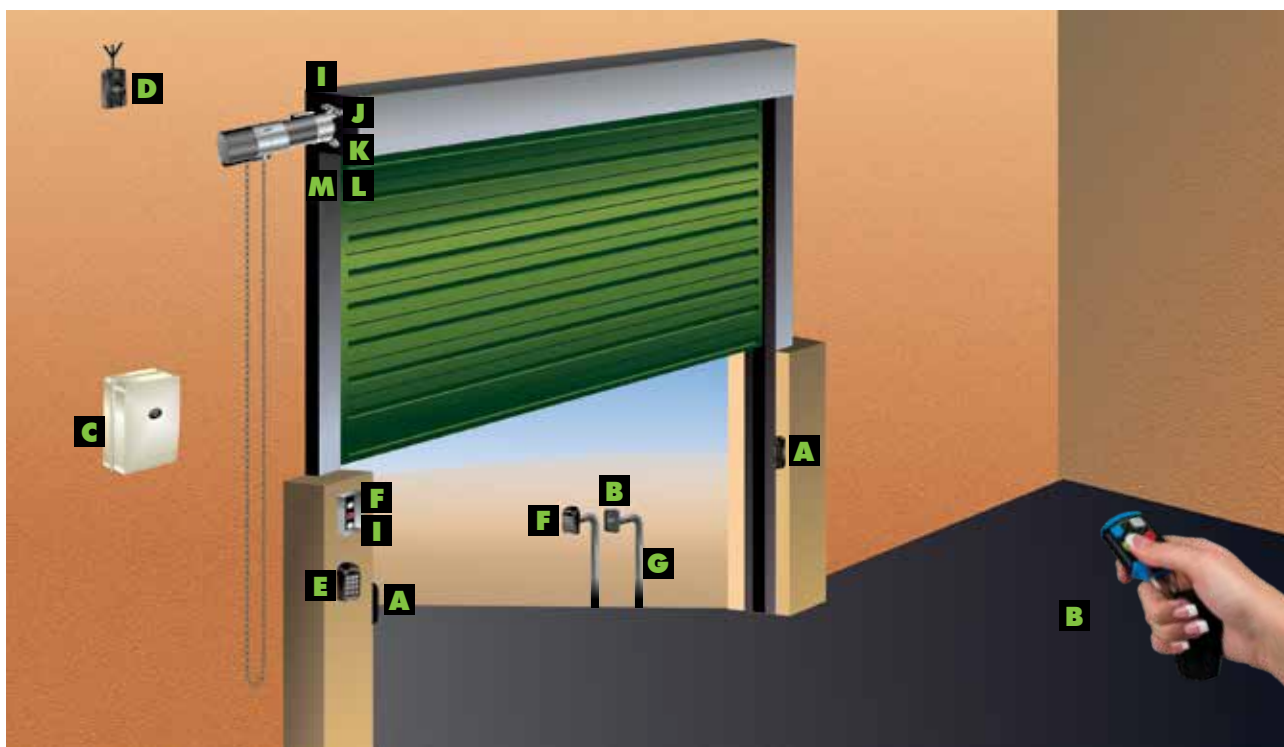
RSO KITS

Kit Components	RSO5DC	RSO5R3P	RSO5RE	RSO9V2
Product code	RSO5DC_FKIT	RSO5R3P_FKIT	RSO5RE_FKIT	RSO9V2_FKIT
Operator	✓	✓	✓	✓
Sprocket	✓	✓	✓	✓
Drive chain	✓	✓	✓	✓
Taper bush	✓	✓	✓	✓
Integrated wall switch	Intelligent LCD controller	✓	✓	✓
Foundation plate	✓	✓	✓	✓
Backup battery and wallbox	✓	-	-	-



CABLING REQUIREMENTS

1. 220V - 240V AC mains cable (3 core LNE 1.5mm² SWA)¹
 2. Cable for Wall Switch (supplied)
 3. Optional but recommended infrared Safety Beams (3 core 0.5mm² multi-stranded)²
 4. Radio receiver cable (3 core 0.5mm² multi-stranded)²
 5. Optional keypad or proximity access control reader (3 core 0.5mm² multi-stranded)²
1. 380V AC 3Ø for three-phase models
2. Applies to **RSO5DC** only



ROLLER-SHUTTER OPERATORS ACCESSORIES



CENTURION INFRARED SAFETY BEAMS

Always recommended on any automation installation to increase the safety of the automated system.



CENTURION NOVA TRANSMITTER

Incorporates ultra-secure code-hopping technology. Available in one-, two- and four-button variants.



RSO WALLBOX

A fully weatherproof wall-mounted enclosure for your **RSO5DC** operator's electronics, providing a neat and convenient central point of operation



G-ULTRA GSM DEVICE

The ultimate new GSM solution for monitoring and activating electrical appliances via your mobile phone.



SMARTGUARD or SMARTGUARDAIR KEYPAD

Cost-effective and versatile wired or wireless keypad, allowing access for pedestrians.



LOCKABLE BOX FOR WALL SWITCH

A stylish, lockable stainless steel enclosure for the **RSO** Wall Switch to increase the security of the system by preventing unauthorised use of the pushbutton controls.

ROLLER-SHUTTER OPERATORS



GOOSENECK

Steel pole for mounting intercom gate station or access control.



MANUAL PUSHBUTTON

Industrial-rated switch, typically to allow a guard to manually activate the barrier.



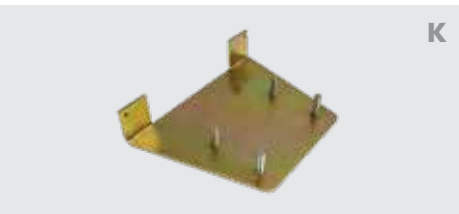
RSO DRIVE CHAIN

Drive chain with a pitch of 5/8th of an inch for use with the **RSO5R**, **RSO5RE**, **RSO5R3P** and **RSO5DC** models.



RSO9 DRIVE CHAIN

Drive chain with a pitch of 1 inch for use with the **RSO9** model.



MOUNTING PLATE

A sturdy foundation plate used for mounting the **RSO5R**, **RSO5DC**, **RSO5R3P**, **RSO5RE** and **RSO9V2** models.



RSO TAPER LOCK BUSH

The taper lock bush is used to secure the **RSO** sprocket to the curtain's shaft. Available in two sizes to suit the majority of industrial roller-shutters.



Fits onto the door shaft and engages with the **RSO** pinion to drive the curtain. Available for the **RSO5R**, **RSO5DC**, **RSO5R3P** and **RSO5RE** models as well as for the **RSO9V2**.

ROLLER-SHUTTER OPERATOR KITS

RSO5R3P 500KG OPERATOR KIT

1

Product Code: RSO5R3P_FKIT

- **1 x RSO5R3P operator including:**
 - 1 x Sprocket **A**
 - 1 x Drive chain **B**
 - 1 x RSO lock taper bush **C**
 - 1 x Wall Switch **D**
- 1 x Mounting plate **E**

RSO5RE 500KG OPERATOR KIT

2

Product Code: RSO5RE_FKIT

- **1 x RSO5RE operator including:**
 - 1 x Sprocket **A**
 - 1 x Drive chain **B**
 - 1 x RSO lock taper bush **C**
 - 1 x Wall Switch **D**
- 1 x Mounting plate **E**

RSO5DC 500KG OPERATOR KIT

4

Product Code: RSO5DCKIT

- **1 x RSO5DC operator including:**
 - 1 x Sprocket **A**
 - 1 x Drive chain **B**
 - 1 x RSO lock taper bush **C**
 - 1 x Wall Switch **D**
- **1 x Wall box including F**
 - 1 x 7Ah battery **G**
 - 1 x Controller **I**
 - 1 x 2A 24V charger **H**
- 1 x Mounting plate **E**

RSO9V2 900KG OPERATOR KIT

3

Product Code: RSO90_FKIT

- **1 x RSO9V2 operator including:**
 - 1 x Sprocket **A**
 - 1 x Drive chain **B**
 - 1 x RSO lock taper bush **C**
 - 1 x Wall Switch **D**
- 1 x Mounting plate **E**



1 RSO5RE



2 RSO5R3P



3 RSO5DC



4 RSO9V2



A

Sprocket assembly



B

Drive chain



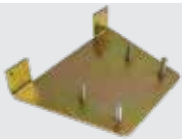
C

RSO lock taper bush



D

Wall Switch



E

Mounting plate



F

Wallbox



G

7Ah Battery



H

2A 24V charger



I

RSO5DC controller