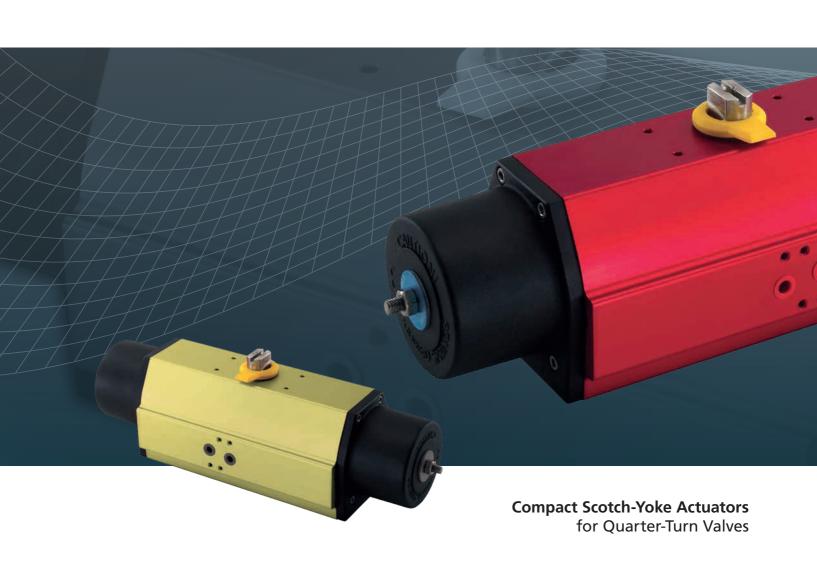




RC200 Range



**Keeping the World Flowing** 

# rotork

## **Keeping the World Flowing**





# **Reliable operation** when it matters

Assured reliability for critical applications and environments.

Whether used 24/7 or infrequently, Rotork products will operate reliably and efficiently when called upon.

# Quality-driven global manufacturing

Products designed with 60 years of industry and application knowledge.

Research and development across all our facilities ensures cutting edge products are available for every application.

# **Customer-focused service** worldwide support

Solving customer challenges and developing new solutions.

From initial enquiry through to product installation, long-term after-sales care and Client Support Programmes (CSP).

# **Low cost** of ownership

Long-term reliability prolongs service life.

Rotork helps to reduce long term cost of ownership and provides greater efficiency to process and plant.

# RC200 Range

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### **Comprehensive product range** serving multiple industries

Improved efficiency, assured safety and environmental protection.

Rotork products and services are used throughout industry inclusive of Power, Oil & Gas, Water & Wastewater, HVAC, Marine, Mining, Pulp & Paper, Food & Beverage, Pharmaceutical and Chemical industries around the world.

# **Global presence**

local service

Global company with local support.

Manufacturing sites, service centres, sales offices and Centres of Excellence throughout the world provide unrivalled customer services and fast delivery.

### **Market leader** technical innovator

The recognised market leader for 60 years.

Our customers have relied upon Rotork for innovative solutions to safely manage the flow of liquids, gases and powders.

# **Corporate social**

responsibility

A responsible business leads to being the best business.

We are socially, ethically, environmentally responsible and committed to embedding CSR across all our processes and ways of working.

### Rotork Actuators – Quality Controlled

Since the company was founded in 1957, Rotork has become the standard for excellence in the field of valve and damper automation for the oil, gas, power, water and waste treatment industries around the world.

As established leaders in actuation technology, we owe our success to a commitment to quality at every stage, and at every level, of Rotork's operations.

At the heart of the company is an exceptional workforce – the highly trained, forward thinking engineers, technicians, and sales support staff who each play a crucial role in maintaining Rotork's unrivaled reputation for innovation, reliability and first class after sale support.

With several fluid power factories and additional Centres of Excellence located around the globe, we are able to offer creative solutions and design systems for virtually any application – from subsea hydraulics to the most sophisticated yet simple fluid power control system.

Contact Rotork for your operational or safety application requirements. We will work with you from conception, to design, to manufacture, to installation, and finally to maintenance and service support.



### RC200 Compact Scotch-Yoke Actuators

The Rotork RC200 pneumatic actuator features a modern scotch-yoke mechanism that provides high start- and endtorque output in a very compact package. It is available in both double-acting and spring-return configurations with an optional integral manual override. Spring-return actuators feature springs that are safely contained within an epoxycoated cartridge. Pistons are guided in two places by highperformance bearings which ensure proper alignment and long seal life.

RC200 actuators have the lowest weight and the smallest external dimensions of any actuator with an equivalent torque output. This yields a compact and light yet robust valve / actuator package, particularly when a manual override solution is required. Another benefit is that they have less stroke volume than comparable rack and pinion actuators, providing a significant saving in the use of compressed air.



### Quality

RC200 actuators are manufactured under strict quality control in an ISO 9001 / 14000 environment. They comply with all standard international requirements and are CE marked according to PED and ATEX. We use only top-quality materials in a precisely engineered and manufactured product so our actuators are very long lasting. We are proud to provide a unique three-year warranty.



### **Efficiency**

Unlike rack & pinion designs often offered by our competitors, the RC200 with its scotch-yoke drive gives at least 50% more torque in the end positions, where most valves require it.



### Reliability

Every Rotork actuator is built to provide long and efficient service with a minimum of maintenance. The design, engineering and materials used in their construction ensure optimum performance even in the harshest of environments.

### **Fitting Accessories**

### **The Right Accessory Solutions**

Valves and actuators only perform as well as the solution is engineered. With decades of experience engineering fluid power valve automation for a multitude of applications and markets, you can depend on Rotork to provide a reliable and safe automation solution to meet your requirements.



### **Specifications**

### **Specifications**

Operating Pressure: 2-10 bar (30-145 psi) **Torque Output:** Up to 4,400 Nm (39,000 lbf.in)

### **Temperature Ranges:**

Standard: -20 to +80 °C  $(-4 \text{ to } +175 \text{ }^{\circ}\text{F})$ 0 to +150 °C High: (+32 to +300 °F) -40 to +60 °C  $(-40 \text{ to } +140 \text{ }^{\circ}\text{F})$ Low: -47 to +80 °C (-52 to +175 °F) Arctic:

### Standards:

Solenoid valve connection: NAMUR

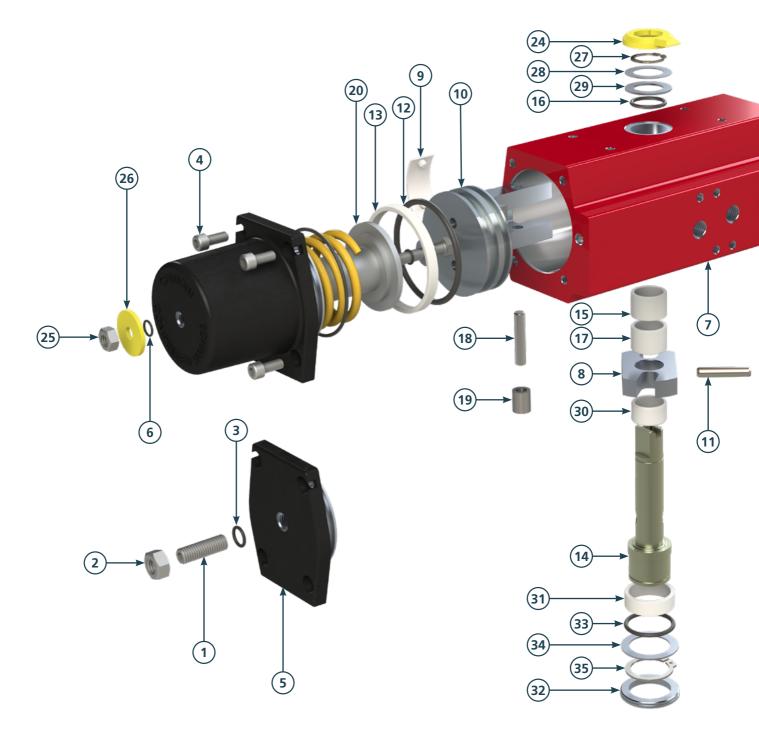
Fitting accessories: VDI/VDE 3845, NAMUR Fitting to valve: Hole pattern, centering ring ISO 5211, DIN 3337, NAMUR

ISO 5211 with 90° ☐ and Stardrive shaft:

DIN 79 with 45°  $\diamondsuit$  and NAMUR

Certified suitable for use at SIL 2 & SIL 3 as a single device in

accordance with IEC 61508.



### **Inside The RC200 Actuator**

### **Extra Corrosion Protection:**

RCT: hard anodise / low friction polymer treatment. Epoxy coating.

Offshore or other finish to meet customer specifications. Stainless screws and drive shaft (standard for RC210 – 260).

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### **Operating Medium:**

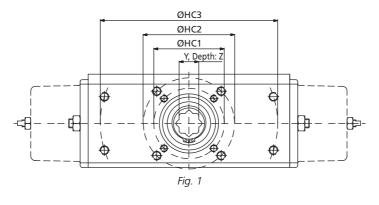
Air, inert gases (non-dangerous fluids, group 2 according to directive PED 97/23/EC). RC200 actuators are also available for water or oil hydraulics.

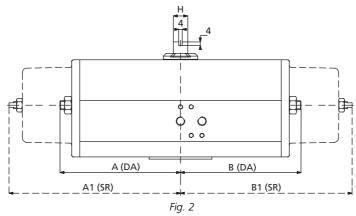
**CE Marking:** CE marked according to PED and ATEX.

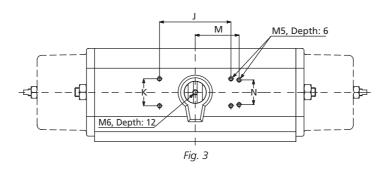
Item         Description         Oty DA         Oty SR         Material           1         Adjusting screw¹         1         -         Size 210–260: Stainless steel. Other sizes: Zinc plated steel           2         Lock nut¹         1         -         Other sizes: Zinc plated steel           3         O-ring¹.6         1         -         Nitrile           4         Screw         8-16         8-16         Size 210–260: Stainless steel. Other sizes: Zinc plated steel           5         End plate¹         1         -         Nitrile           6         O-ring⁴         2         2         Nitrile           7         Actuator body         1         1         Anodised aluminium           8         Scotch Yoke         1         1         Anodised aluminium           10         Piston guide blick¹.6         1         1         POM           10         Piston¹         1         1         Aluminium           11         Roll pin, double².3         1         1         Spring steel           12         O-ring¹.6         1         1         Nitrile           13         Piston guide ring¹.6         1         1         Nitrile           14			_	_	
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11 Roll pin, double <sup>2,3</sup> 1 1 Spring steel  12 O-ring <sup>1,6</sup> 1 1 Nitrile  13 Piston guide ring <sup>1,6</sup> 1 1 Polymer material  14 Driving shaft 1 1 Size 210–260: Stainless steel. Other sizes: Zinc platted steel  15 Bearing, upper 1 1 Polymer material  16 O-ring, upper <sup>6</sup> 1 1 Nitrile  17 Bearing, upper 1 1 Polymer material  18 Piston pin <sup>1</sup> 1 1 Steel  19 Piston roller <sup>1</sup> 1 1 Steel  20 Spring guide - 1 Aluminium  21 Spring - 1 Alloyed spring steel  22 Spring housing <sup>1</sup> - 1 Size 210–260: Stainless steel. Other sizes: Zinc platted steel  23 Pre-tensioning screw <sup>1</sup> - 1 Size 210–260: Stainless steel. Other sizes: Zinc platted steel  24 Indicator 1 Polymer material  25 Lock nut <sup>1</sup> - 1 Spring steel  26 Marking washer <sup>1</sup> - 1 Anodised aluminium  27 Retaining ring, upper <sup>6</sup> 1 Spring steel  28 Middle washer <sup>6</sup> 1 Stainless steel. Other sizes: Zinc platted steel  29 Support washer, upper <sup>6</sup> 1 Stainless steel  30 Support ring, lower 1 Polymer material  31 Bearing, lower 1 Polymer material  32 Guide ring 1 Polymer material  33 O-ring, lower <sup>6</sup> 1 Nitrile  34 Support washer, lower <sup>6</sup> 1 Nitrile  Polymer material, chemically resistant  Nitrile  Polymer material, chemically resistant  Nitrile	9	Piston guide blick <sup>1,6</sup>	1	1	POM
12 O-ring <sup>1,6</sup> 1 1 Nitrile 13 Piston guide ring <sup>1,6</sup> 1 1 Polymer material 14 Driving shaft 1 1 Size 210–260: Stainless steel. 15 Bearing, upper 1 1 Polymer material 16 O-ring, upper <sup>6</sup> 1 1 Nitrile 17 Bearing, upper 1 1 Polymer material 18 Piston pin <sup>1</sup> 1 1 Steel 19 Piston roller <sup>1</sup> 1 1 Steel 20 Spring guide - 1 Aluminium 21 Spring - 1 Alloyed spring steel 22 Spring housing <sup>1</sup> - 1 Polymer material 23 Pre-tensioning screw <sup>1</sup> - 1 Size 210–260: Stainless steel. 24 Indicator 1 Polymer material 25 Lock nut <sup>1</sup> - 1 Size 210–260: Stainless steel. 26 Marking washer <sup>1</sup> - 1 Anodised aluminium 27 Retaining ring, upper <sup>6</sup> 1 1 Spring steel 28 Middle washer <sup>6</sup> 1 1 Stainless steel. 29 Support washer, upper <sup>6</sup> 1 1 Stainless steel 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Nitrile 35 Polymer material, chemically resistant 36 Polymer material 37 Polymer material 38 Support washer, lower <sup>6</sup> 1 Nitrile 39 Polymer material 30 Support material 31 Polymer material 31 Polymer material 32 Polymer material 33 O-ring, lower <sup>6</sup> 1 Nitrile	10	Piston <sup>1</sup>	1	1	Aluminium
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14 Driving shaft 1 1 Other sizes: Zinc plated steel 15 Bearing, upper 1 1 1 Polymer material 16 O-ring, upper 1 1 1 Polymer material 17 Bearing, upper 1 1 1 Polymer material 18 Piston pin¹ 1 1 Steel 19 Piston roller¹ 1 1 Steel 20 Spring guide - 1 Aluminium 21 Spring - 1 Alloyed spring steel 22 Spring housing¹ - 1 Bowder coated anodised aluminium 23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 24 Indicator 1 Polymer material 25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer¹ - 1 Anodised aluminium 27 Retaining ring, upper 1 1 Spring steel 28 Middle washer 1 1 Stainless steel 29 Support washer, upper 1 1 Stainless steel 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower 1 1 Polymer material 34 Support washer, lower 1 1 Polymer material 35 Polymer material 36 Support washer, lower 1 1 Polymer material 37 Polymer material 38 Support washer, lower 1 1 Polymer material 39 Polymer material 30 Support washer, lower 1 1 Polymer material 31 Polymer material 32 Polymer material Nitrile 33 O-ring, lower 1 1 Polymer material, chemically resistant	13	Piston guide ring <sup>1,6</sup>	1	1	Polymer material
16 O-ring, upper <sup>6</sup> 1 1 Nitrile 17 Bearing, upper 1 1 1 Polymer material 18 Piston pin <sup>1</sup> 1 1 Steel 19 Piston roller <sup>1</sup> 1 1 Steel 20 Spring guide - 1 Aluminium 21 Spring - 1 Alloyed spring steel 22 Spring housing <sup>1</sup> - 1 Size 210–260: Stainless steel. 23 Pre-tensioning screw <sup>1</sup> - 1 Size 210–260: Stainless steel. 24 Indicator 1 1 Polymer material 25 Lock nut <sup>1</sup> - 1 Size 210–260: Stainless steel. 26 Marking washer <sup>1</sup> - 1 Anodised aluminium 27 Retaining ring, upper <sup>6</sup> 1 1 Spring steel 28 Middle washer <sup>6</sup> 1 1 Stainless steel. 29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	14	Driving shaft	1	1	
17 Bearing, upper 1 1 1 Steel 18 Piston pin¹ 1 1 5teel 19 Piston roller¹ 1 1 5teel 20 Spring guide - 1 Aluminium 21 Spring - 1 Alloyed spring steel 22 Spring housing¹ - 1 Powder coated anodised aluminium 23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 24 Indicator 1 1 Polymer material 25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer¹ - 1 Anodised aluminium 27 Retaining ring, upper⁶ 1 1 Spring steel 28 Middle washer⁶ 1 1 Stainless steel 29 Support washer, upper⁶ 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower⁶ 1 1 Nitrile 34 Support washer, lower⁶ 1 1 Nitrile	15	Bearing, upper	1	1	Polymer material
18 Piston pin¹ 1 1 1 Steel  19 Piston roller¹ 1 1 1 Steel  20 Spring guide - 1 Aluminium  21 Spring - 1 Alloyed spring steel  22 Spring housing¹ - 1 Powder coated anodised aluminium  23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel  24 Indicator 1 1 Polymer material  25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel  26 Marking washer¹ - 1 Anodised aluminium  27 Retaining ring, upper⁶ 1 1 Spring steel  28 Middle washer⁶ 1 1 Stainless steel  29 Support washer, upper⁶ 1 1 Polymer material, chemically resistant  30 Support ring, lower 1 1 Polymer material  31 Bearing, lower 1 1 Polymer material  32 Guide ring 1 1 Polymer material  33 O-ring, lower⁶ 1 1 Nitrile  34 Support washer, lower⁶ 1 1 Polymer material, chemically resistant	16	O-ring, upper <sup>6</sup>	1	1	Nitrile
19 Piston roller¹ 1 1 1 Steel 20 Spring guide - 1 Aluminium 21 Spring - 1 Alloyed spring steel 22 Spring housing¹ - 1 Alloyed roated anodised aluminium 23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 24 Indicator 1 1 Polymer material 25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer¹ - 1 Anodised aluminium 27 Retaining ring, upper⁶ 1 1 Spring steel 28 Middle washer⁶ 1 1 Stainless steel 29 Support washer, upper⁶ 1 1 Stainless steel 30 Support ring, lower 1 1 Polymer material, chemically resistant 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower⁶ 1 1 Nitrile 34 Support washer, lower⁶ 1 1 Nitrile	17	Bearing, upper	1	1	Polymer material
20 Spring guide - 1 Aluminium 21 Spring - 1 Alloyed spring steel 22 Spring housing¹ - 1 Alloyed spring steel 23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 24 Indicator 1 1 Polymer material 25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer¹ - 1 Anodised aluminium 27 Retaining ring, upper⁶ 1 1 Spring steel 28 Middle washer⁶ 1 1 Stainless steel 29 Support washer, upper⁶ 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower⁶ 1 1 Nitrile 34 Support washer, lower⁶ 1 1 Polymer material, chemically resistant	18	Piston pin <sup>1</sup>	1	1	Steel
21 Spring - 1 Alloyed spring steel  22 Spring housing¹ - 1 Powder coated anodised aluminium  23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel  24 Indicator 1 1 Polymer material  25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel  26 Marking washer¹ - 1 Anodised aluminium  27 Retaining ring, upper⁶ 1 1 Spring steel  28 Middle washer⁶ 1 1 Stainless steel  29 Support washer, upper⁶ 1 1 Polymer material, chemically resistant  30 Support ring, lower 1 Polymer material  31 Bearing, lower 1 Polymer material  32 Guide ring 1 Polymer material  33 O-ring, lower⁶ 1 Nitrile  34 Support washer, lower⁶ 1 Nitrile	19	Piston roller <sup>1</sup>	1	1	Steel
22 Spring housing¹ - 1 Powder coated anodised aluminium  23 Pre-tensioning screw¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel  24 Indicator 1 1 Polymer material  25 Lock nut¹ - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel  26 Marking washer¹ - 1 Anodised aluminium  27 Retaining ring, upper⁶ 1 1 Spring steel  28 Middle washer⁶ 1 1 Stainless steel  29 Support washer, upper⁶ 1 1 Polymer material, chemically resistant  30 Support ring, lower 1 Polymer material  31 Bearing, lower 1 Polymer material  32 Guide ring 1 Polymer material  33 O-ring, lower⁶ 1 Nitrile  34 Support washer, lower⁶ 1 Nitrile	20	Spring guide	-	1	Aluminium
23 Pre-tensioning screw <sup>1</sup> - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 24 Indicator 1 1 Polymer material 25 Lock nut <sup>1</sup> - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer <sup>1</sup> - 1 Anodised aluminium 27 Retaining ring, upper <sup>6</sup> 1 1 Spring steel 28 Middle washer <sup>6</sup> 1 1 Stainless steel 29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	21	Spring	-	1	Alloyed spring steel
24 Indicator 1 1 Polymer material 25 Lock nut <sup>1</sup> - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer <sup>1</sup> - 1 Anodised aluminium 27 Retaining ring, upper <sup>6</sup> 1 1 Spring steel 28 Middle washer <sup>6</sup> 1 1 Stainless steel 29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	22	Spring housing <sup>1</sup>	-	1	
25 Lock nut <sup>1</sup> - 1 Size 210–260: Stainless steel. Other sizes: Zinc plated steel 26 Marking washer <sup>1</sup> - 1 Anodised aluminium 27 Retaining ring, upper <sup>6</sup> 1 1 Spring steel 28 Middle washer <sup>6</sup> 1 1 Stainless steel 29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	23	Pre-tensioning screw <sup>1</sup>	-	1	
26 Marking washer¹ - 1 Other sizes: Zinc plated steel 27 Retaining ring, upper⁶ 1 1 Spring steel 28 Middle washer⁶ 1 1 Stainless steel 29 Support washer, upper⁶ 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower⁶ 1 1 Nitrile 34 Support washer, lower⁶ 1 1 Polymer material, chemically resistant	24	Indicator	1	1	Polymer material
27 Retaining ring, upper <sup>6</sup> 1 1 Spring steel 28 Middle washer <sup>6</sup> 1 1 Stainless steel 29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	25	Lock nut <sup>1</sup>	-	1	
28 Middle washer <sup>6</sup> 1 1 Stainless steel 29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	26	Marking washer <sup>1</sup>	-	1	Anodised aluminium
29 Support washer, upper <sup>6</sup> 1 1 Polymer material, chemically resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	27	Retaining ring, upper <sup>6</sup>	1	1	Spring steel
30 Support washer, upper 1 resistant 30 Support ring, lower 1 1 Polymer material 31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower 1 1 Nitrile 34 Support washer, lower 1 1 Polymer material, chemically resistant	28	Middle washer <sup>6</sup>	1	1	Stainless steel
31 Bearing, lower 1 1 Polymer material 32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	29	Support washer, upper <sup>6</sup>	1	1	
32 Guide ring 1 1 Polymer material 33 O-ring, lower <sup>6</sup> 1 1 Nitrile 34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	30	Support ring, lower	1	1	Polymer material
33 O-ring, lower <sup>6</sup> 1 1 Nitrile  34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	31	Bearing, lower	1	1	Polymer material
34 Support washer, lower <sup>6</sup> 1 1 Polymer material, chemically resistant	32	Guide ring	1	1	Polymer material
34 Support washer, lower 1 1 resistant	33	O-ring, lower <sup>6</sup>	1	1	Nitrile
35 Retaining ring, lower <sup>6</sup> 1 1 Spring steel	34	Support washer, lower <sup>6</sup>	1	1	
	35	Retaining ring, lower <sup>6</sup>	1	1	Spring steel

Notes 1) For actuator sizes 220, 240, 260 and 280: The double amount of details. 2) RC240 has triple roll pins. 3) RC270–280 have a slotted pin in steel. 4) Not in the picture! Do not exist for sizes 220, 240, 260 and 280. 5) Only for sizes 270 and 280, not in the picture. 6) Included in seal kit.

### **Dimensions**







	Dimensions (mm)										Weight											
			Fig. 1				Fig. 2				Fig.					Fig. 4	/ <b>4</b> a			(kg)		
Model	HC 1	HC 2	HC 3	Y**	Z	А		A1	B1	Н		K	М	N	С			G	U*		DA	SR
RC210	F05	F07	-	14	19	45	98	45	150	10	35.4	35.4	40	30	32	41	75	16	35	2	1.2	1.5
RC220	F05	F07	-	14	19	98	98	150	150	10	80	30	-	-	32	41	75	16	35	2	1.6	2.2
RC230	F07	F10	-	17	30	65	135	65	200	16	80	30	-	-	49	55	110	25	55	3	3.5	4.2
RC240	F07	F10	-	22	30	135	135	200	200	16	80	30	-	-	49	55	110	25	70	3	4.9	7.0
RC250	F10	F12	-	22	37	90	190	90	285	22	80	30	-	-	69	75	155	35	70	3	9.4	12.4
RC260	F10	F12	-	27	37	190	190	285	285	22	80	30	-	-	69	75	155	35	85	3	12.5	18.5
RC265	F12	-	-	27	37	195	195	317	317	22	80	30	-	-	76	76	202	35	85	3	18.8	26.6
RC270	F14	-	170 x 110	36	64	145	300	145	510	40	130	30	-	-	110	110	248	60	100	4	32.0	45.0
RC280 <sup>†</sup>	F12	F16	234.7 x 97.2	46	64	300	300	510	510	40	130	30	-	-	110	110	248	60	130	5	42.0	68.0

 $<sup>\</sup>dagger$  = Also includes valve mounting pattern of 300 x 110.

### **Dimensions**

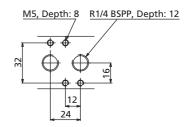
### RC210 to 240

# M5, Depth: 8 R1/8 BSPP, Depth: 8

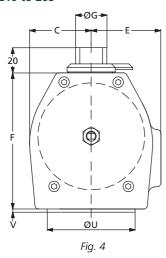
12 24

### RC250 to 280

Hole pattern for solenoid valves acc. to VDI/VDE 3845, NAMUR



### RC210 to 265



### RC270 to 280

SV = Mounting solenoid valves acc. to VDI/VDE 3845, NAMUR

U+V = Guide ring acc. to DIN 3337

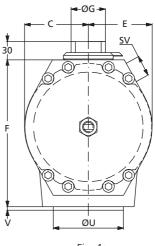
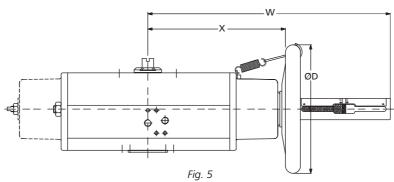


Fig. 4a



	Dime	nsions (	mm)		Weight w/M1(kg)				
		Fig. 5		w/wii(kg)					
Model	D	Х	W	DA	SR				
RC210	180	145	295	2.2	2.5				
RC220	180	145	295	2.7	3.2				
RC230	180	190	345	4.8	5.3				
RC240	180	190	345	5.8	7.1				
RC250	320	295	505	13.8	15.2				
RC260	320	295	505	16.3	20.2				
RC265	320	370	600	24.3	31.0				
RC270	400	515	812	47.0	57.7				
RC280	600	490	812	55.1	80.7				

U\* = Guide ring for other hole circle on request.

Y\*\* = Tolerance H9. The hole is octagonal and adapts to valve stems with squares at either 90° (ISO 5711) or 45° (DIN 3337) orientations.

Н	ole Dimens	i <b>ons</b> (mm	)
ISO 5211	Circle Ø	Thread	Depth
F05	50	M6	11
F07	70	M8	14
F10	102	M10	17
F12	125	M12	21
F14	140	M16	25
F16	165	M20	32
170 x 110	-	M16	25
234.7 x 97.2	254	M16	25
300 x 110	-	M16	25

### **Performance Data**

### Air Consumption DA

	Free Air at 6 bar	(litres)
Model	Anti-clockwise rotation	Clockwise rotation
RC210	0.6	1.1
RC220	1.1	1.3
RC230	2.2	4
RC240	4.4	5
RC250	6.9	13
RC260	13.8	16
RC265	32	36
RC270	33	54
RC280	66	67

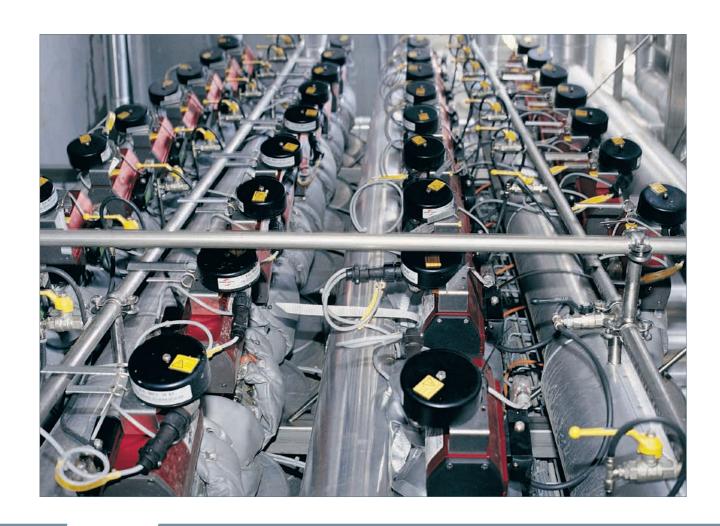
### Air Consumption SR

Free A	ir at 6 bar (litres)
Model	
RC210	1.1
RC220	1.3
RC230	4
RC240	5
RC250	13
RC260	16
RC265	36
RC270	54
RC280	67

### **Operation Times DA/SR**

	Time at 6 bar (sec)
Model	Anti-clockwise and Clockwise rotation
RC210	<0.3
RC220	<0.3
RC230	<0.6
RC240	<0.7
RC250	<2.5
RC260	<2.5
RC265	<1.5
RC270	<5
RC280	<5

The times relate to full air flow and may increase depending on solenoid valves and the dimensions of connecting pipes.



RC200 Range

# **Torque Data** – Double-Acting

### RC200-DA

		Position				Output To	rque (Nm)	ŧ.		
Model	Function	0° = closed 90° = open	2.1 bar 30 psi	2.8 bar 40 psi	3.5 bar 50 psi	4.2 bar 60 psi	4.5 bar 65 psi	5.5 bar 80 psi	6 bar 87 psi	7 bar 100 psi
RC210	Air open/close	0° 60° 90°	13 6 9	17 8 12	21 10 15	25 12 18	27 13 19	35 17 25	38 19 27	44 22 32
RC220	Air open/close	0° 60° 90°	26 13 18	34 17 24	42 21 30	51 25 36	55 27 39	70 35 50	76 38 54	88 44 63
RC230	Air open/close	0° 60° 90°	48 24 35	64 31 46	80 39 57	96 47 69	103 50 74	133 66 96	145 72 105	165 83 120
RC240	Air open/close	0° 60° 90°	98 49 70	130 65 93	162 81 117	195 97 140	209 104 150	266 133 193	290 145 210	340 170 240
RC250	Air open/close	0° 60° 90°	150 75 108	200 100 143	250 125 179	300 150 215	321 161 230	413 206 293	450 225 320	530 260 380
RC260	Air open/close	0° 60° 90°	305 150 220	407 200 293	508 250 367	610 300 440	654 321 471	834 422 596	910 460 650	1,070 530 770
RC265	Air open/close	0° 60° 90°	432 203 307	576 271 409	720 338 512	864 406 614	926 435 658	1,188 556 844	1,296 606 921	1,512 711 1,075
RC270	Air open/close	0° 60° 90°	630 315 455	840 420 607	1,050 525 758	1,260 630 910	1,350 675 975	1,733 862 1,247	1,890 940 1,360	2,200 1,100 1,590
RC280	Air open/close	0° 60° 90°	1,270 635 915	1,693 847 1,220	2,117 1,058 1,525	2,540 1,270 1,830	2,721 1,361 1,961	3,483 1,742 2,512	3,800 1,900 2,740	4,450 2,220 3,190

<sup>\*</sup> Output torque +/- 5%.

# **Torque Data** – Spring-Return (spring to close)

### RC200-SR

		Position				Output To	rque (Nm)	k		
Model	Function	0° = closed 90° = open	2.1 bar 30 psi	2.8 bar 40 psi	3.5 bar 50 psi	4.2 bar 60 psi	4.5 bar 65 psi	5.5 bar 80 psi	6 bar 87 psi	7 bar 100 psi
BC210	Air	0° 60° 90°	7 3 4	9 4 5	12 5 6	14 6 7.5	15 6 8	19 8 10	20 9 11	24 10 13
RC210	Spring	90° 30° 0°	6 3 4	8 4 6	10 5 7	12 6 8.5	13 6 9	16 8 11	18 9 12	21 10 14
DC220	Air	0° 60° 90°	15 6 8	19 8 10	24 10 12	29 12 15	31 13 16	39 16 20	41 18 22	48 21 26
RC220	Spring	90° 30° 0°	13 6 9	17 8 11	21 10 14	25 12 17	27 13 18	33 16 23	37 18 25	43 21 29
0.000	Air	0° 60° 90°	27 12 15	36 15 19	45 19 24	54 23 29	58 25 31	72 31 39	78 33 41	92 39 48
RC230	Spring	90° 30° 0°	24 12 17	31 15 22	39 19 27	47 23 33	51 25 36	63 31 44	69 33 47	81 39 55
	Air	0° 60° 90°	55 24 29	73 31 39	92 39 48	110 47 58	119 51 63	147 63 77	158 68 84	185 80 98
RC240	Spring	90° 30° 0°	48 24 33	64 31 44	80 39 55	96 47 66	104 51 71	128 63 88	140 68 96	163 80 115
	Air	0° 60°	85 37 45	113 49 60	142 62 75	170 74 90	184 80 97	227 99 120	245 105 130	290 125 155
RC250	Spring	90° 30° 0°	75 37 50	100 49 67	125 62 83	150 74 100	162 80 108	200 99 133	215 105 150	255 125 175
	Air	0° 60° 90°	173 75 90	230 100 120	287 125 150	345 150 180	374 162 195	460 200 240	500 215 265	580 250 310
RC260	Spring	90° 30° 0°	153 75 105	203 100 140	254 125 175	305 150 210	330 162 227	407 200 280	440 215 305	515 250 350
	Air	0° 60°	280 113 125	373 150 167	467 187 208	560 225 250	607 244 271	671 280 303	730 305 330	935 360 425
RC265	Spring	90° 30° 0°	210 103 153	280 137 203	350 171 254	420 205 305	455 222 330	560 273 407	610 330 440	695 355 525
	Air	0° 60° 90°	355 155 190	473 207 253	592 258 317	710 310 380	769 336 412	947 413 507	1,030 440 550	1,210 520 640
RC270	Spring	90° 30° 0°	315 155 215	420 207 287	525 258 358	630 310 430	682 336 466	840 413 573	910 440 620	1,060 520 720
	Air	0° 60°	715 310	953 413	1,192 517	1,430 620	1,549 672	1,907 827	2,080 900	2,430 1,050
RC280	Spring	90° 30° 0°	380 635 310 435	507 847 413 580	633 1,058 517 725	760 1,270 620 870	823 1,376 672 942	1,013 1,693 827 1,160	1,110 1,840 900 1,260	1,290 2,150 1,050 1,470

<sup>\*</sup> Output torque +/- 5%.

Note: Springs adapted to air supply pressure.

# **Torque Data** – Spring-Return (spring to open)

### RC200-SRF

		Position				Output To	rque (Nm)*	*		
Model	Function	0° = closed 90° = open	2.1 bar 30 psi	2.8 bar 40 psi	3.5 bar 50 psi	4.2 bar 60 psi	4.5 bar 65 psi	5.5 bar 80 psi	6 bar 87 psi	7 bar 100 psi
	Spring	60° 90°	7 2.6 3	9.6 3.6 4.3	12 4.6 5.5	15 5.5 6.6	16 6 7	20 7.5 9	21 7.8 10	25 9 11.5
RC210	Air	90° 45° 0°	5.2 2.8 4.5	7.2 3.8 6.2	9 4.9 8	11 6 10	12 6.4 10	15 8 13	16.2 9 14.3	19 10.1 17.2
	Spring	0° 60°	14 5.3	20 7.2	25 9	30 11	33 12	41 15	43 15.5	50 18
RC220	Air	90° 90° 45° 0°	6.7 11 5.6 9.4	9 14 7.7 13	12 18 9.8 16	14 22 12 20	15 24 13 22	19 30 16 27	20 33 18 30	23 38 21.5 34.5
	Spring	0° 60° 90°	27 9.8 12	37 13 16	47 17 21	57 21 25	62 23 27	77 28 34	84 30 38	93 33 40
RC230	Air	90° 45° 0°	21 11 17	29 15 23	37 19 29	44 23 36	48 25 39	60 31 48	62 33 51.5	75 41 66
	Spring	0° 60° 90°	56 20	77 27	98 35	118 42	130 46	160 57	180 65	190 68
RC240	Air	90° 45° 0°	25 42 22 35	34 58 31 48	73 39 61	52 89 47 74	56 97 52	70 120 64 100	80 123 66 97	82 155 84
	Spring	0° 60° 90°	84 30 37	115 42 50	145 53 64	175 64 78	81 195 70 85	240 87	265 96	135 305 112
RC250	Air	90° 45° 0°	65 34 54	89 47	110 60	135 73	150 79	105 185 98	120 195 104	130 225 123
	Spring	0° 60° 90°	175 63 77	74 240 86	98 300 110	115 370 135	125 373 135	155 500 180	160 540 195	195 620 220
RC260	Air	90° 45°	135 70	105 185 96	135 230 120	160 280 150	165 307 170	220 385 200	245 400 210	280 465 250
	Spring	0° 0°	110 251 123	150 335 154	190 419 175	230 500 188	278 536 230	315 670 260	730 300 300	395 850 360
RC265	Air	90° 45° 0°	113 188 101	150 250 135	188 313 169	225 375 200	241 402 214	300 500 260	325 525 290	375 620 335
	Spring	0° 60°	158 350 130 155	210 480 175 210	263 620 2,220 270	315 750 270 320	338 810 290 350	1,010 365 440	1,100 400 480	525 1,250 450 550
RC270	Air	90° 45° 0°	270 145 230	370 195 310	470 250 390	570 300 480	620 330 520	770 410 645	830 430 680	1,000 540 810
	Spring	0° 60° 90°	730 260 320	1,000 360 440	1,270 460 560	1,540 550 680	1,670 600 740	2,080 750 920	2,250 780 1,000	2,500 820 1,100
RC280	Air	90° 45° 0°	560 290 460	770 400 630	980 510 805	1,180 620 980	1,290 670 1,060	1,600 835 1,320	1,700 900 1,380	2,000 1,100 1,700

<sup>\*</sup> Output torque +/- 5%.

Note: Springs adapted to air supply pressure.

### **Client Support** and Site Services

# **rotork**Site Services

Rotork actuators are recognised as the best in the world for reliability and safety in the most demanding applications. To maintain this hard-earned leadership position, Rotork Site Services is committed to helping clients to maximise the continuous, fault-free operation and working life of all their actuators.

With established operations and worldwide service centres we are able to offer same-day or next-day service to all our customers. Our Rotork factory trained engineers have skills in both multi-purpose and industry specific applications and carry with them spare parts and specialist test equipment. Our operations utilise a documented Quality Management system established in accordance with ISO9001.

Rotork Site Services aims to be your number one choice for taking care of fault diagnosis, service repairs, scheduled maintenance and system integration needs.

Visit **www.rotork.com** to identify your nearest Rotork Site Services centre.

Rotork has expertise and specialist knowledge of every aspect of flow control.

Our service solutions increase plant efficiency and reduce maintenance costs.

Workshop services return equipment to as-new condition.



### **Client Support** and Site Services

### **Global Service and Support**

Rotork understand the value of prompt and punctual customer site services and aim to supply our customers with superior flow control solutions, by providing high quality, innovative products and superior service – *on time, every time.* 

Whether you have an actuator requiring on-site servicing, a custom design service requirement or a new actuator installation, we can deliver the fastest turnaround with the least plant disruption.

### **Accreditation and Assurance**

Rotork Site Services is accredited with all major safety authorities around the world, providing our clients with reassurance and peace of mind.

Rotork's engineering teams are experts in the design and implementation of actuation solutions for all circumstances and environments. Our knowledge base draws upon previous installations and environmental situations from all around the world.

Our track record of undertaken engineering projects is second to none. Rotork is trusted by major utility and industrial companies throughout the world to design, install and maintain their actuation stock. We keep their plants operating at peak efficiency, helping them to be more profitable and at the same time meet ever tightening industry watchdog requirements.

We have the knowledge and expertise to design, build and install any standard or custom installation for you, anywhere throughout the world.

### **Asset Management**

Rotork is a corporate member of the Institute of Asset Management, the professional body for whole life management of physical assets.



Giving You Peace of Mind, Guaranteed Quality and Improving Your Site Efficiency





### **Actuator Workshop Overhaul**

- Supporting all Rotork and non-Rotork products
- Workshop facilities including torque testing and re-coating
- Large OEM stock in all workshops
- · Fully trained and experienced service engineers
- Fleet of well stocked service vehicles
- Loan actuator facilities

### **Field Support**

- Site repairs
- Commissioning
- Upgrades
- Fault finding
- Maintenance
- Call-out
- Fully equipped service vehicles

### **Rotork Client Support Programme (CSP)**

- Enables users to select a level of service precisely tailored for their individual asset management requirements
- Designed to provide the maximum reliability and availability of actuators over the life of the product – thereby improving production throughput
- Designed to reduce the cost of maintenance year on year
- Designed to allow customers to manage the problem of 'Risk vs Budget' in maintenance operations
- Designed to be flexible you choose the level of cover you want
- Reports generated on agreed frequency to demonstrate cost savings and performance improvements

### **Turnaround, Shutdown and Outage Support**

- Preventative maintenance
- Full on-site overhaul and testing facilities
- OEM spares and support
- Support for Rotork and non-Rotork products
- Commissioning support to achieve shutdown time targets
- Project management and supervision of your plant overhaul and return to service dates

### **Valve Automation Centres**

- On Site Manual Valve Automation
- On Site Actuator Replacement
- Off Site New Valve Automation





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As part of a process of on-going product development, Rotork reserves the right to amend and change specifications without prior notice. Published data may be subject to change. For the very latest version release, visit our website at www.rotork.com

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