

# rotork®

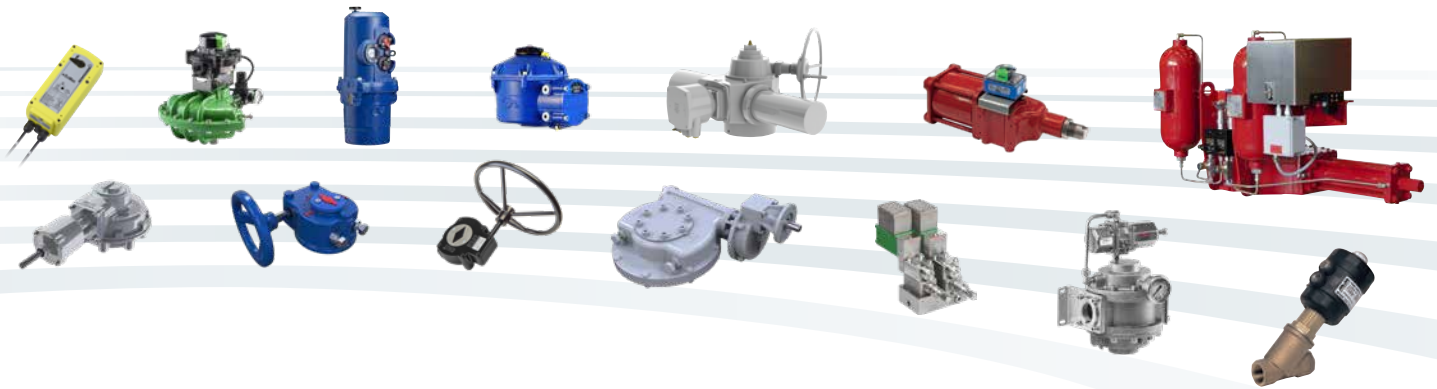
Keeping the World Flowing  
for Future Generations

## ROM and ROMpak Range



Quarter-Turn Direct Drive  
Electric Actuators

## Reliability in critical flow control applications



### › **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.

# ROM and ROMpak 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.

## 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.

## 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.

## 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.

# Compact, lightweight and cost effective Rotork solution to suit your application

- › Proven reliable design
- › Self-locking and high speed solutions
- › Continuous position indication at all times, even without power
- › 1-phase, 3-phase and DC power supplies
- › Analogue and network compatibility for complete site system integration
- › Guaranteed operating direction with automatic phase rotation correction
- › Watertight and dustproof to IP68 10m for 100 hours
- › Integral local controls for enhanced local operation
- › Manual override for emergency operation
- › Dependable mechanical end of travel protection
- › Backed by Rotork Global Support

As one of the world's leading manufacturers of actuation products, Rotork has built up an enviable reputation as the supplier of reliable and durable equipment.

With over 60 years of valve automation experience, Rotork has evolved a design of uncompromising reliability. The ROM and ROMpak range of actuators are designed to provide a simple and reliable Rotork solution for small part-turn valves.







## Design Features

ROM and ROMpak actuators provide quiet and reliable operation for all kinds of small ball valves and butterfly valves, as well as dampers and ventilation louvres. They provide local indication and manual override options together with a wide range of voltages.

### Features:

	ROM	ROMpak
Enclosure	IP68 Waterproof - Dustproof	IP68 Waterproof - Dustproof
Material	Aluminium Alloy	Aluminium Alloy and plastic
Finish	Dry powder coated	Dry powder coated and wet spray

### Motor

- Standard duty cycle induction motor - S3.  
Class F insulation for all ROM and ROMpak actuators

### Position Indicator

- All models have continuous position indication on the actuator top cover

### Manual Override

- Non-clutch design, the manual operation can be operated without any lever, clutch or brake upon power outage
- When the electric motor is operating, the manual override will not rotate except on ROMH-1 to ROMH-3, ROM-1 & ROM-A

### Power Supply Tolerances

- Voltage tolerance: +/- 10%
- Frequency tolerance: +/- 10%

### Gear Train

- High alloy steel gear trains provide self-locking function to avoid valve back drive\*
- ROM-1 and ROM-A designs incorporate an efficient spur gear train which can back drive in certain applications
- Gear trains are factory lubricated with a wide temperature rated lubricant

### Mechanical Stops

- Externally adjustable mechanical stops\*

### Working Conditions

- Ambient temperature: -30 to +70 °C (-22 to 158 °F)<sup>†</sup>
- Humidity: 30% to 95%

### Various Options

- Anti-condensation heater
- Additional limit switches
- Conduit entries M20 x 1.5p
- Torque switches\*

### Certificates

- ISO 9001, CE, CSA, BV

<sup>†</sup> 12/24 VDC units are -30 to +65 °C (-22 to +149 °F)

\* ROM and ROMpak 2, 3, 4, 5, 6 & 7 actuators only



ROM Actuator



ROMpak Actuator

## Design Features

### The ROMpak

The ROM range of actuators can be enhanced with the addition of a self contained control package to create a ROMpak actuator. This adds local controls, status indication relays, isolated control circuits and support for Rotork control options such as Folomatic, *Pakscan*<sup>™</sup> and other bus systems.

- Small, compact & lightweight
- Manual override
- Externally adjustable mechanical stops\*
- Local control unit (local/remote, on/off)
- Status relays
- Phase rotation correction
- IP68 (10m / 100 hours)
- 12/24 VDC, 110/220 VAC 1-phase and 220/380/440 VAC 3-phase, 50 Hz and 60 Hz
- Position indication via local mechanical indicator and LEDs
- -30 to +70 °C (-22 to 158 °F)<sup>†</sup> operation

<sup>†</sup> 12/24 VDC units are -30 to +65 °C (-22 to +149 °F)

\* ROM and ROMpak 2, 3, 4, 5, 6 & 7 actuators only

### Various Options:

- Bus communications including: *Pakscan*<sup>™</sup>, Profibus<sup>®</sup>, Modbus<sup>®</sup> and Foundation Fieldbus<sup>®</sup>
- Current position transmitter & Folomatic

### The ROMH

The ROMH actuator has been designed for high-speed applications. This actuator is also available with the self-contained control package (ROMpakH). All features from the ROM and ROMpak are also available on the ROMH and ROMpakH.

- Small, compact, lightweight and high speed
- 4.5 and 5.5 seconds operating times
- Manual override
- Bus communications including: *Pakscan*<sup>™</sup>, Profibus<sup>®</sup>, Modbus<sup>®</sup> and Foundation Fieldbus<sup>®</sup>
- Analogue control and feedback
- DC and 1-phase options



ROMpak Actuator

## Performance Data

### ROM and ROMpak

#### Mechanical Data

Model	ROM Weight (kg)	ROMpak Weight (kg)	Manual override	Output Drive (mm)	Torque Nm (lbf.ft)	Mounting Flange	
						ISO 5211	MSS SP-101
ROM-1*	2	4	Hexagonal Drive	14 / 11 / 9	35 (26)	F03/F05	FA03/FA05
ROM-A*	3	5	Hexagonal Drive	17 / 14	50 (37)	F05/F07	FA05/FA07
ROM-2	11	13	Handwheel	22 / 17	90 (67)	F07	FA07
ROM-3	11	13	Handwheel	22 / 17	150 (111)	F07	FA07
ROM-4	22	24	Handwheel	36 / 35	400 (295)	F10	FA10
ROM-5	22	24	Handwheel	36 / 35	500 (369)	F10	FA10
ROM-6	22	24	Handwheel	36 / 35	650 (479)	F10	FA10
ROM-7	26	28	Handwheel	36 / 35	800 (590)	F12	FA12

NOTE: Weight data based on 1-phase 50 Hz supply.  
\*Not suitable for butterfly valves which may back drive.

#### Electrical Performance Data

##### 12V/24V\*

Model	Torque (Nm)	Operating Time (sec)	Motor Power (W)	12 VDC/VAC CURRENT (A)		24 VDC/VAC CURRENT (A)	
				Run	Lock	Run	Lock
ROM-1	35	20	4.2	1.2	2.2	0.6	1.2
ROM-A	50	30	4.2	1.2	2.2	0.6	1.2
ROM-2	90	17	43	2.5	20	1.1	11
ROM-3	150	28	43	3.2	20	1.5	11
ROM-4	400	23	92	11	42	5.5	21
ROM-5	500	30	92	11	42	5.5	21
ROM-6	650	38	92	11	42	5.5	21
ROM-7	800	46	92	11	42	5.5	21

\*12/24 VAC not available for ROMpak.

##### 1-Phase

Model	Torque (Nm)	Operating Time (sec)		Motor Power (W)	110 V CURRENT (A)		220 V CURRENT (A)	
		50 Hz	60 Hz		Run	Lock	Run	Lock
ROM-1	35	15	13	5	0.5	0.4	0.23	0.25
ROM-A	50	22	19	5	0.5	0.4	0.23	0.25
ROM-2	90	17	15	43	1.2	1.7	0.65	1.0
ROM-3	150	28	24	43	1.2	1.7	0.65	1.0
ROM-4	400	20	17	105	2.3	5.0	0.85	2.3
ROM-5	500	26	22	105	2.3	5.0	0.85	2.3
ROM-6	650	33	28	105	2.3	5.0	0.85	2.3
ROM-7	800	40	34	105	2.3	5.0	0.85	2.3



# Performance Data

## 3-Phase

Model	Torque (Nm)	Operating Time (sec)		Motor Power (W)	220 V Current		380 V CURRENT (A)		440 V CURRENT (A)	
		50 Hz	60 Hz		Run	Lock	Run	Lock	Run	Lock
ROM-2	90	16	14	46	1.3	1.8	0.45	0.83	0.58	0.80
ROM-3	150	26	22	46	1.3	1.8	0.45	0.83	0.58	0.80
ROM-4	400	20	17	105	2.45	4.5	0.7	2	0.9	1.77
ROM-5	500	26	22	105	2.45	4.5	0.7	2	0.9	1.77
ROM-6	650	33	28	105	2.45	4.5	0.7	2	0.9	1.77
ROM-7	800	40	34	105	2.45	4.5	0.7	2	0.9	1.77

## Operating Voltages:

	12	24	12	24	110	220	220	380	440		12	24	12	24	110	220	220	380	440
	VDC	VDC	VAC	VAC	V/1	V/1	V/3	V/3	V/3		VDC	VDC	VAC	VAC	V/1	V/1	V/3	V/3	V/3
ROM-A	✓	✓	✓	✓	✓	✓	X	X	X	ROMpak-A	✓	✓	X	X	✓	✓	X	X	X
ROM-1	✓	✓	✓	✓	✓	✓	X	X	X	ROMpak-1	✓	✓	X	X	✓	✓	X	X	X
ROM-2,3	✓	✓	✓	✓	✓	✓	✓	✓	✓	ROMpak-2,3	✓	✓	X	X	✓	✓	✓	✓	✓
ROM-4,5,6&7	✓	✓	✓	✓	✓	✓	✓	✓	✓	ROMpak-4,5,6&7	✓	✓	X	X	✓	✓	✓	✓	✓

# ROMH and ROMpakH

## Mechanical Data

Model	ROMH Weight (kg)	ROMpakH Weight (kg)	Manual override	Output Drive (mm)	Torque Nm (lbf.ft)	Mounting Flange	
						ISO 5211	MSS SP-101
ROMH-1*	2	4	Hexagonal Drive	14 / 11 / 9	35 (26)	F03/F05	FA03/FA05
ROMH-2*	3	5	Hexagonal Drive	17 / 14	50 (37)	F05/F07	FA05/FA07
ROMH-3*	11	13	Handwheel	22 / 17	90 (67)	F07	FA07

\*Not suitable for butterfly valves which may back drive.

## Electrical Performance Data

### 12V/24V\*

Model	Power Supply	Torque (Nm)	Operating Time (sec)	Motor Power (W)	Current (A)	
					Run	Lock
ROMH-1	12 VDC	8	5.5	4.75	1.2	2.2
	24 VAC	8	4.5	4.75	0.65	1.2
ROMH-2	24 VDC	10	4.5	4.75	0.65	1.2

### 1-Phase

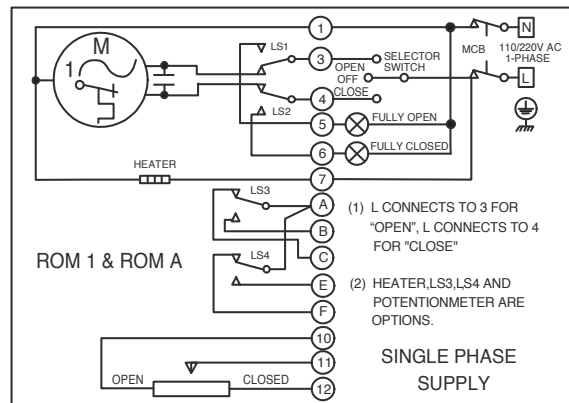
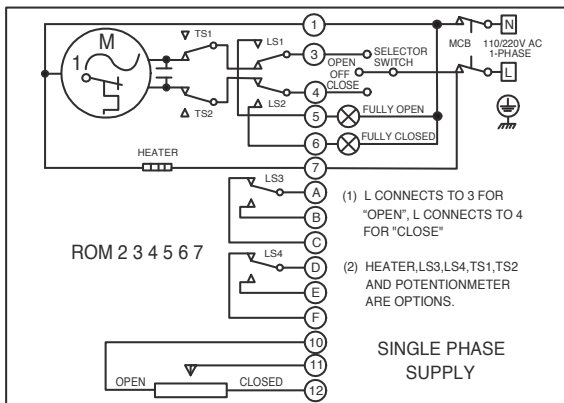
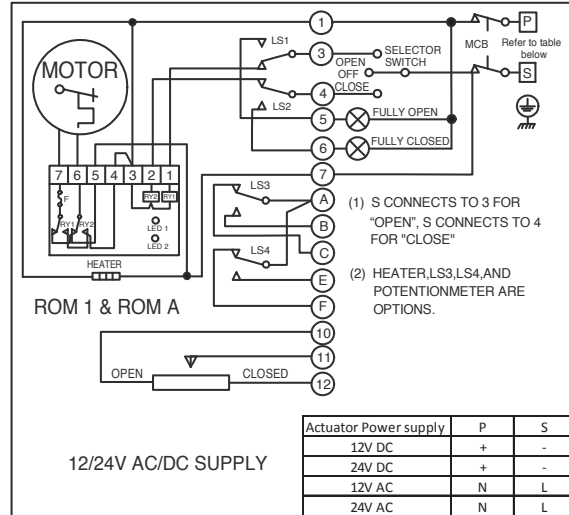
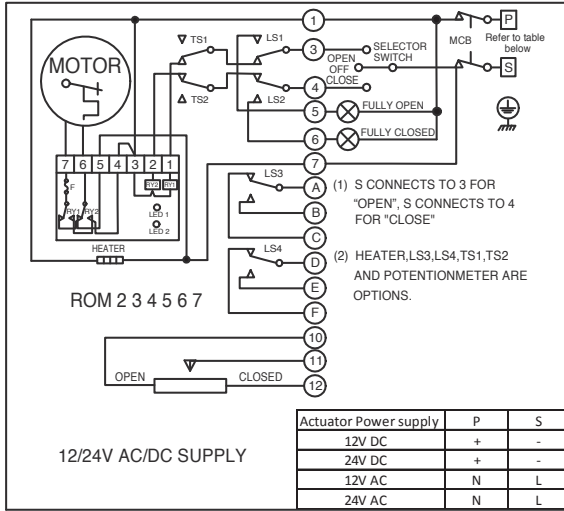
Model	Power Supply	Torque (Nm)	Operating Time (sec)		Motor Power (W)	Current (A)	
			50Hz	60Hz		Run	Lock
ROMH-3	110 V	13	4.5	4.3	6.5	0.36	0.4
	220 V	13	4.5	4.3	6.5	0.23	0.25

## Operating Voltages:

	12	24	12	24	110	220	220	380	440		12	24	12	24	110	220	220	380	440
	VDC	VDC	VAC	VAC	V/1	V/1	V/3	V/3	V/3		VDC	VDC	VAC	VAC	V/1	V/1	V/3	V/3	V/3
ROMH-1	✓	X	X	✓	X	X	X	X	X	ROMpakH-1	✓	X	X	X	X	X	X	X	X
ROMH-2	X	✓	X	X	X	X	X	X	X	ROMpakH-2	X	✓	X	X	X	X	X	X	X
ROMH-3	X	X	X	X	✓	✓	X	X	X	ROMpakH-3	X	X	X	X	✓	✓	X	X	X

# Circuit Diagram and Optional Extras

## ROM Wiring Diagram



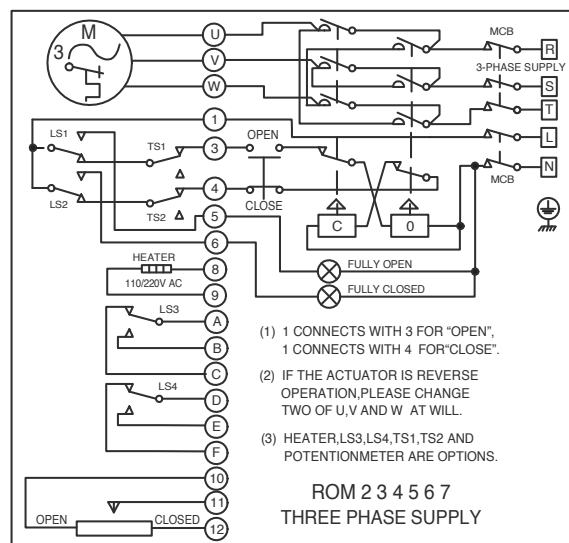
### Optional Extras:

#### Torque Switches

Cam activated torque switches to provide torque overload protection ROM-2, 3, 4, 5, 6 & 7.

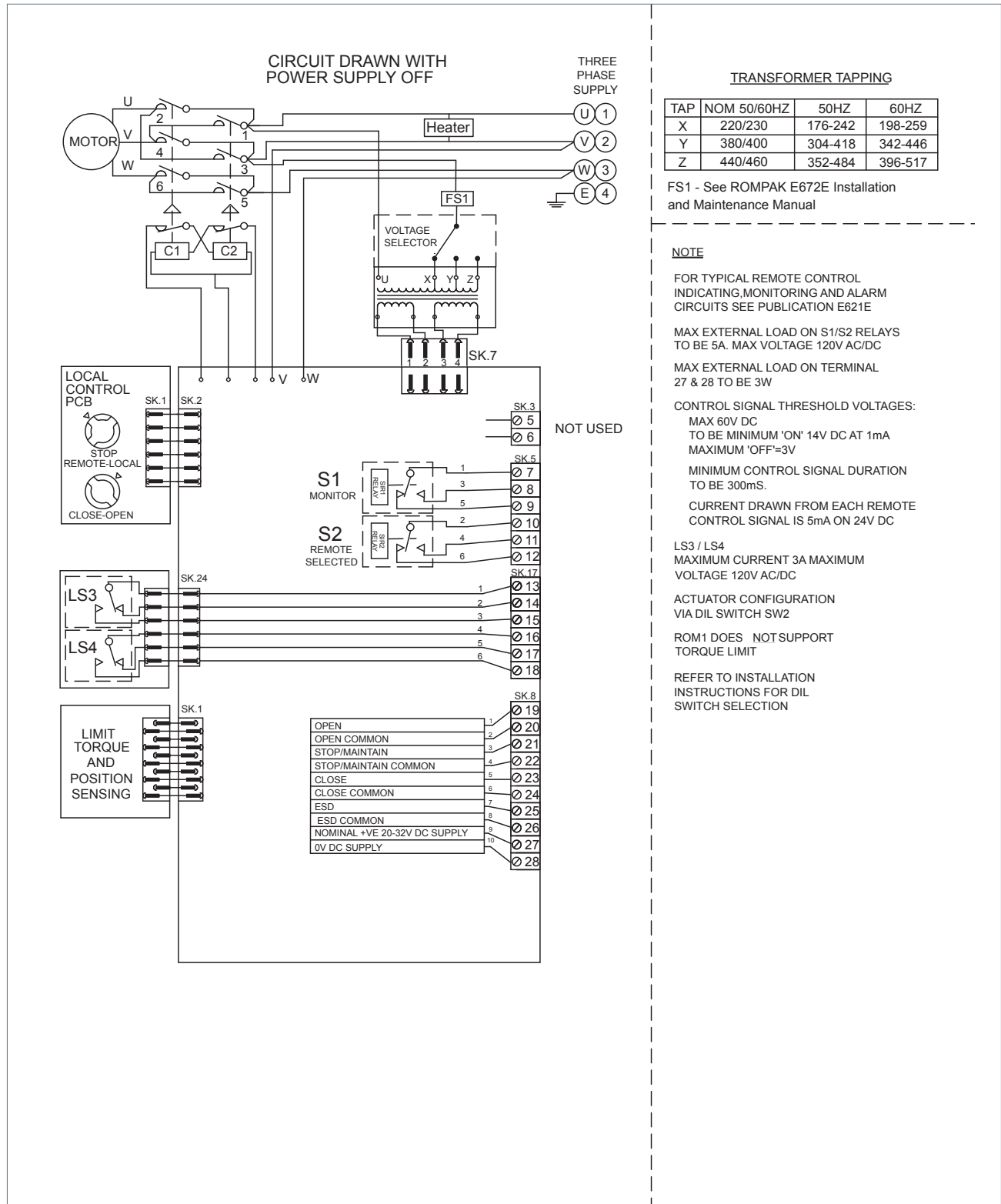
#### Anti-condensation Heater

This heater is available for all sizes.



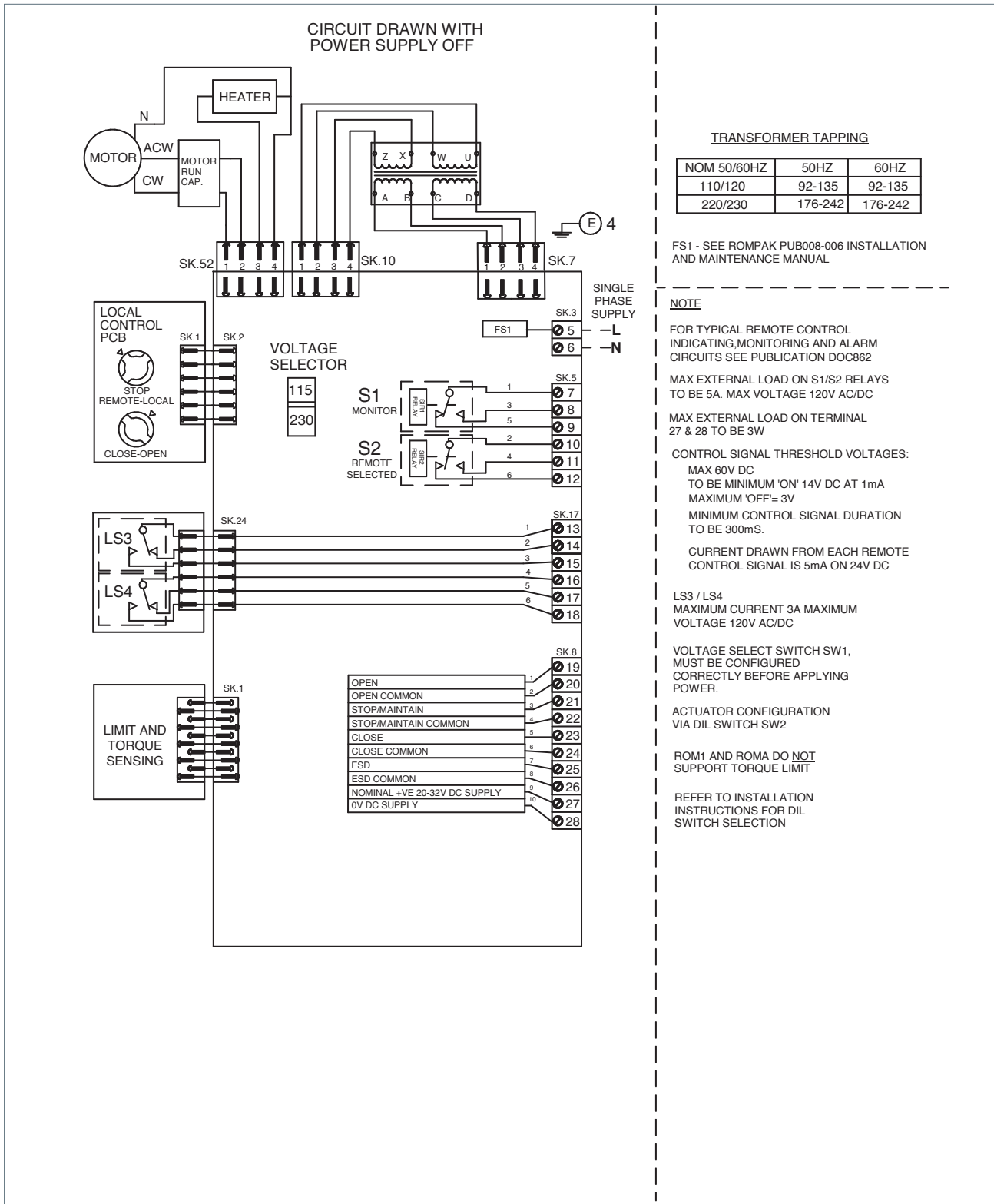
# Circuit Diagram and Optional Extras

## ROMpak 3-Phase Wiring Diagram



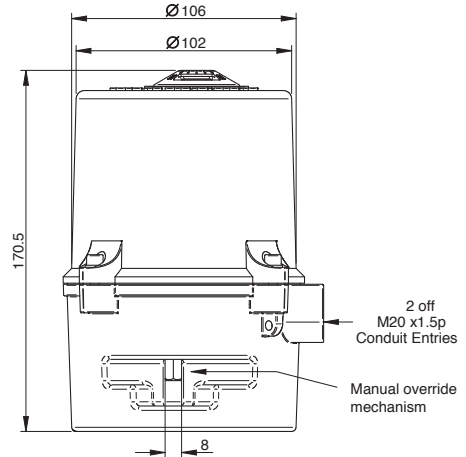
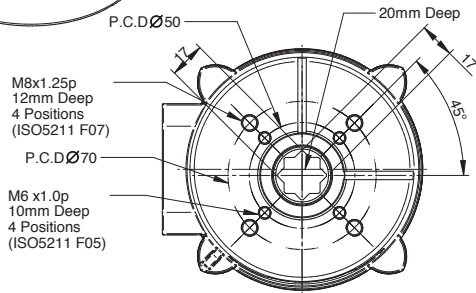
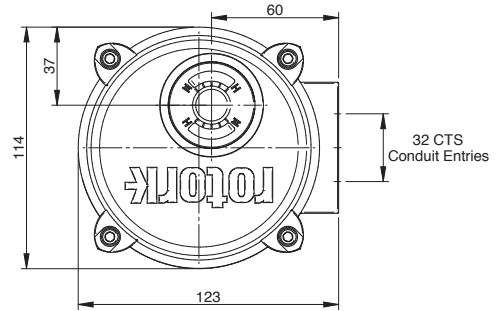
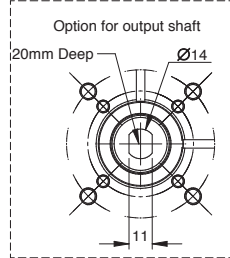
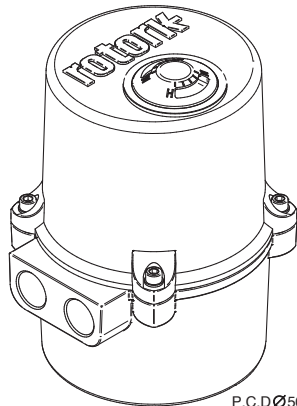
# Circuit Diagram and Optional Extras

## ROMpak 1-Phase Wiring Diagram



# Dimensional Data

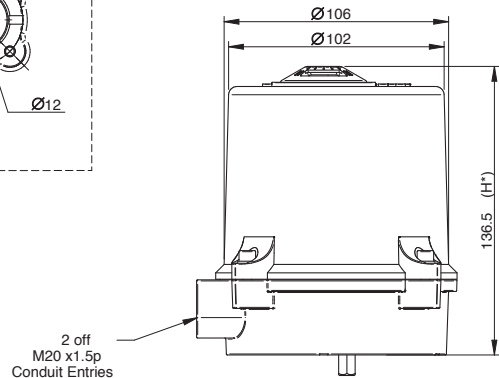
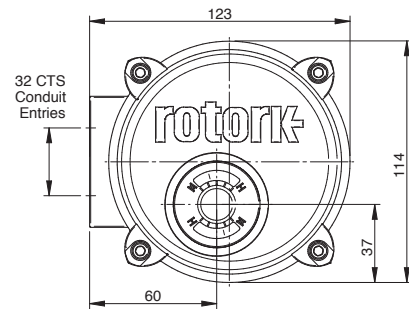
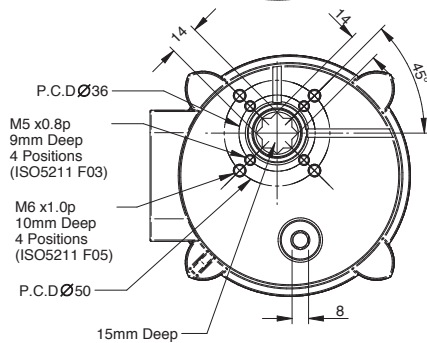
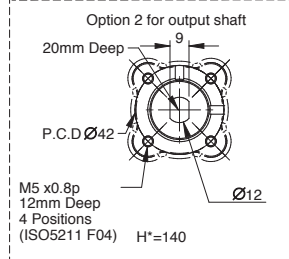
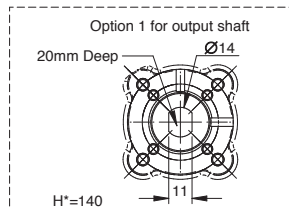
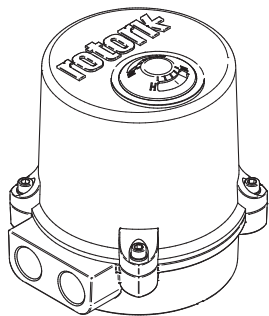
## ROM-A



Flange type

F07 / F05

## ROM-1 ROMH-1 ROMH-2 ROMH-3



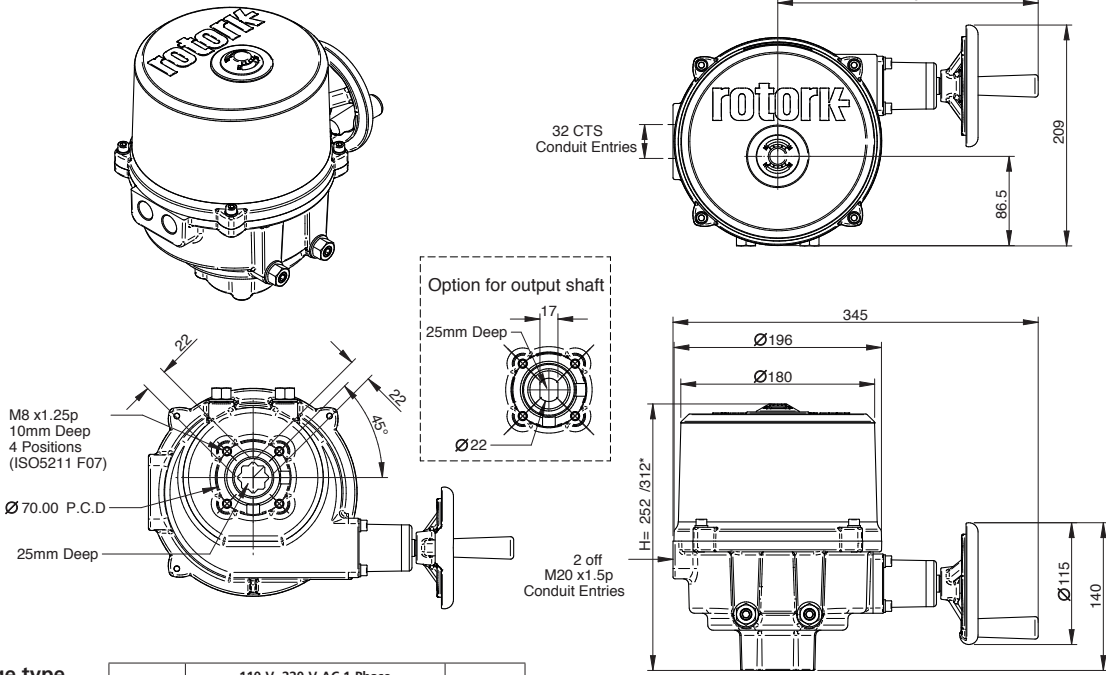
Flange type

F05 / F03



# Dimensional Data

## ROM-2/3

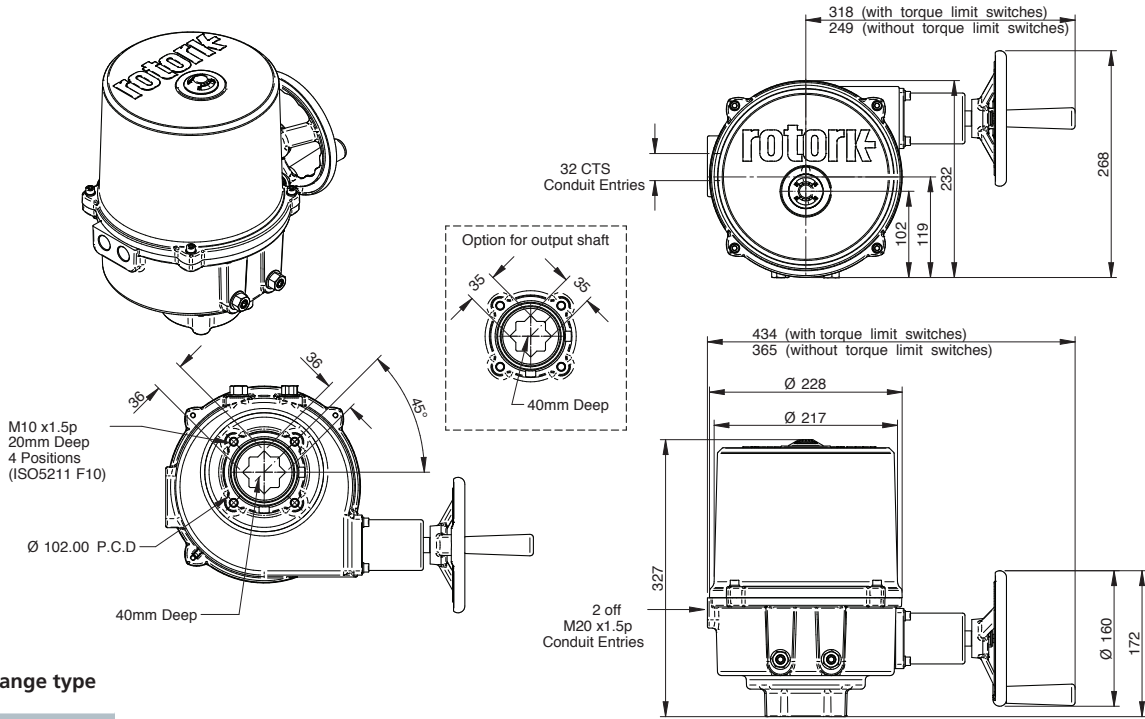


### Flange type

F07

	110 V, 220 V AC 1-Phase	H=252
*ROM-2/3	220 V, 380 V, 440 V AC three-phase	
	12 V, 24 V AC/DC	H=312

## ROM-4/5/6

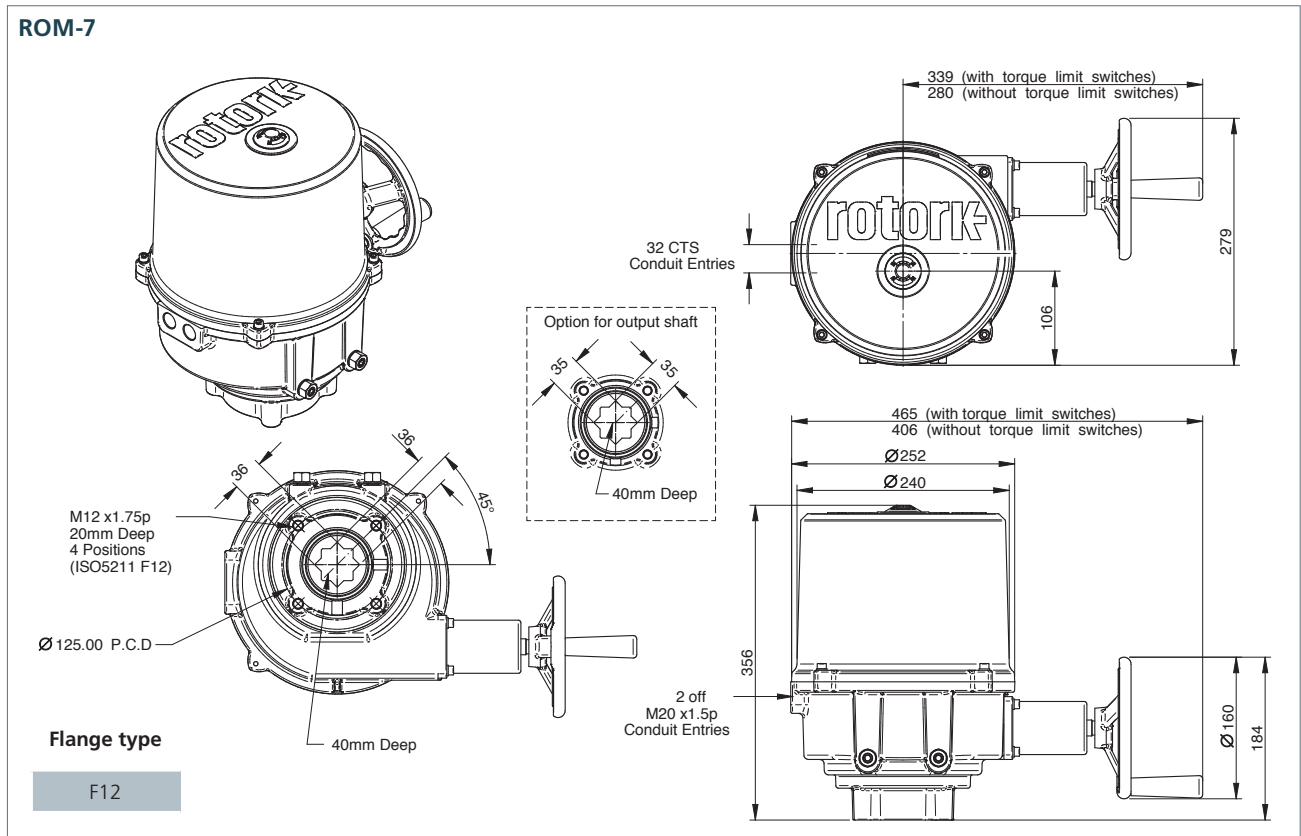


### Flange type

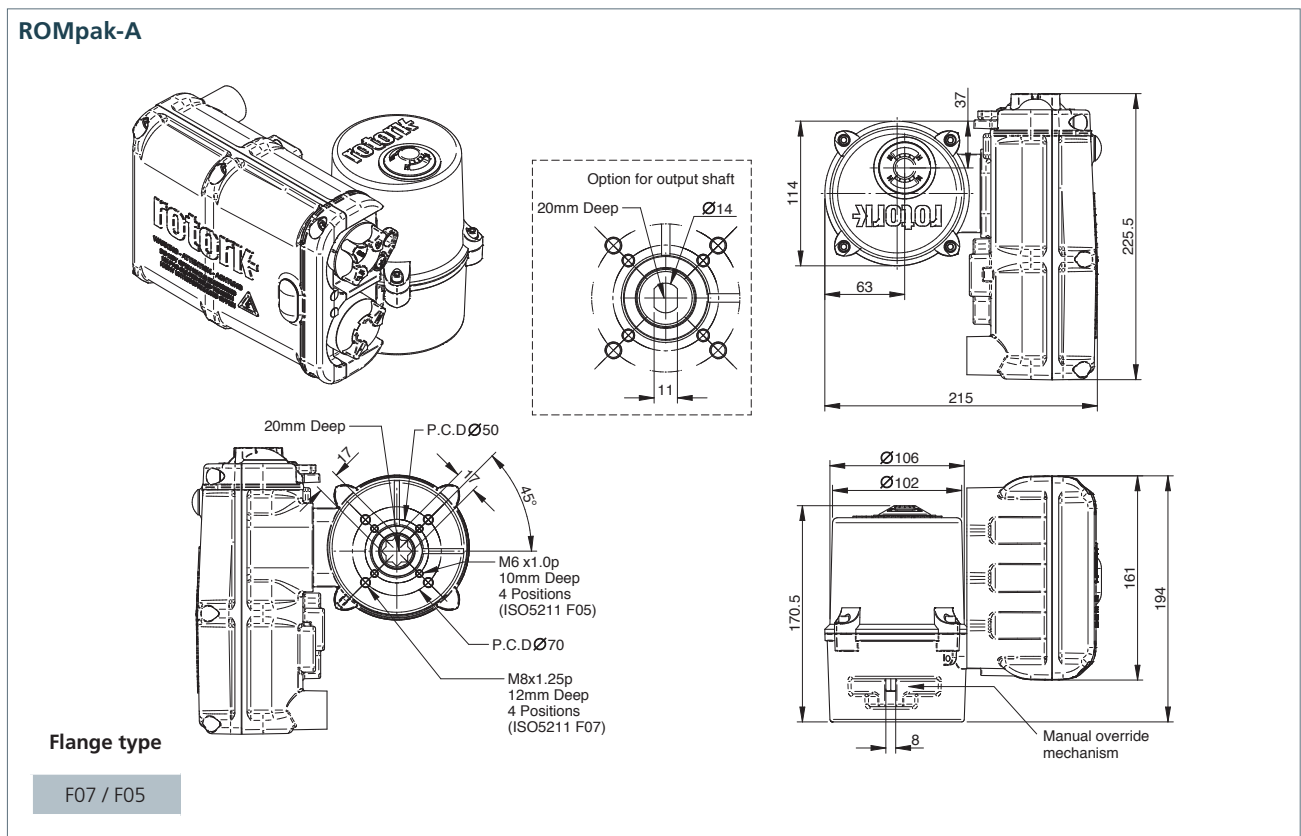
F10

# Dimensional Data

## ROM-7

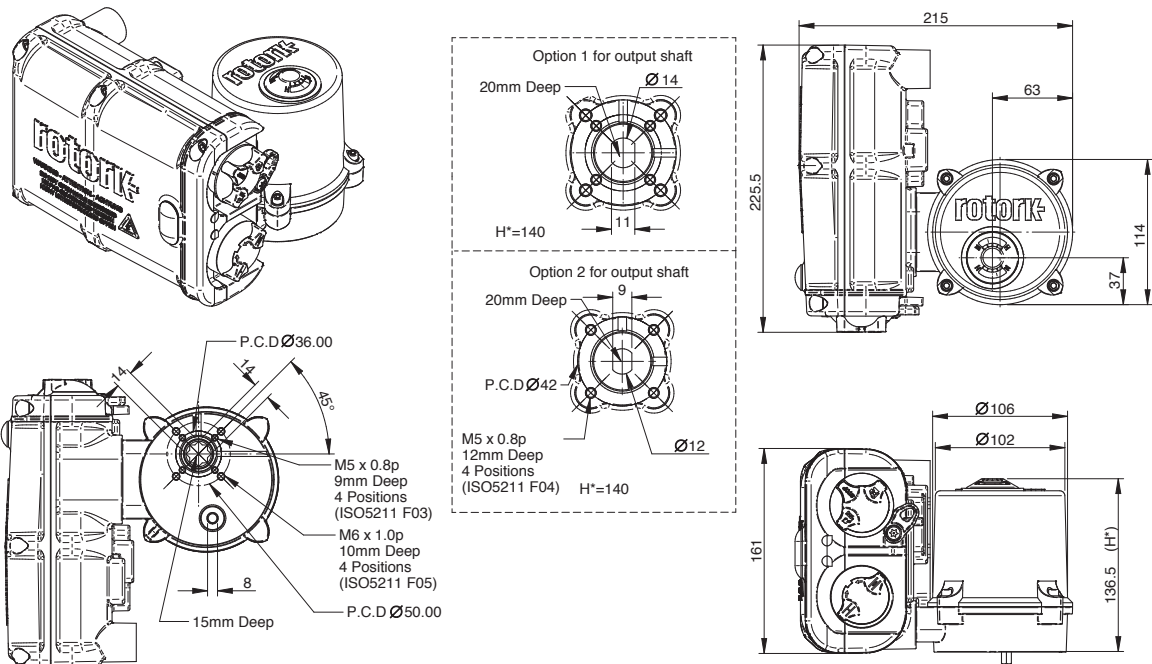


## ROMpak-A



# Dimensional Data

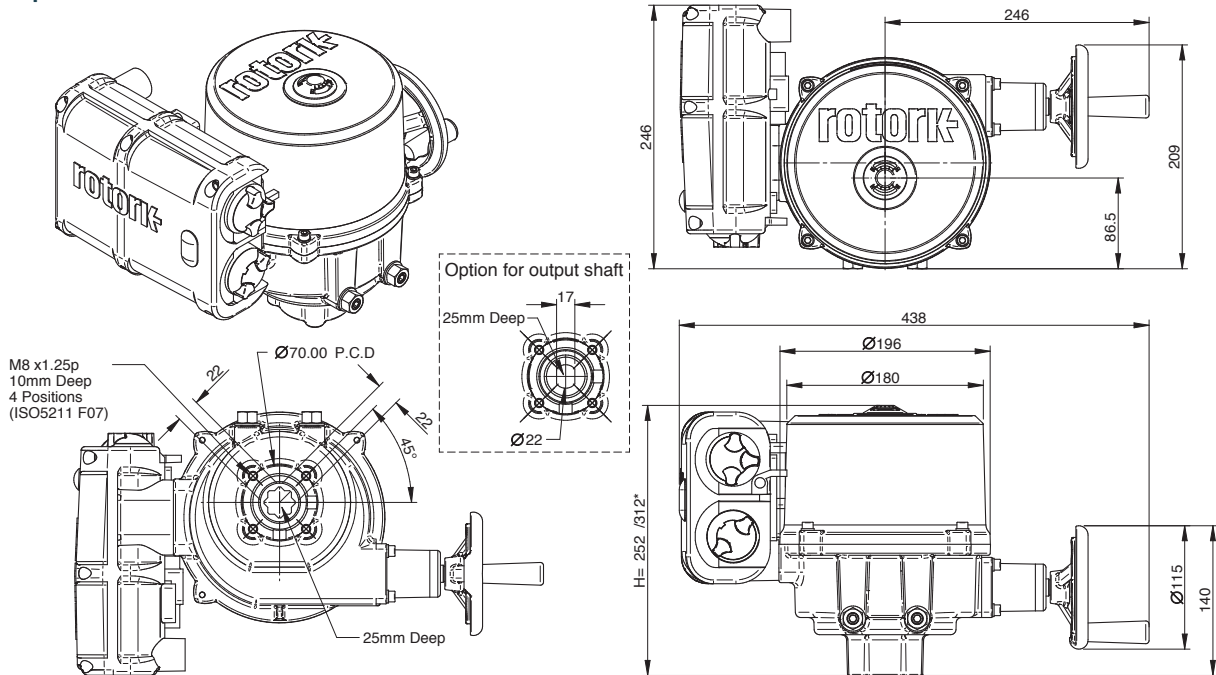
## ROMpak-1, ROMpakH-1, ROMpakH-2, ROMpakH-3



Flange type

F05 / F03

## ROMpak-2/3



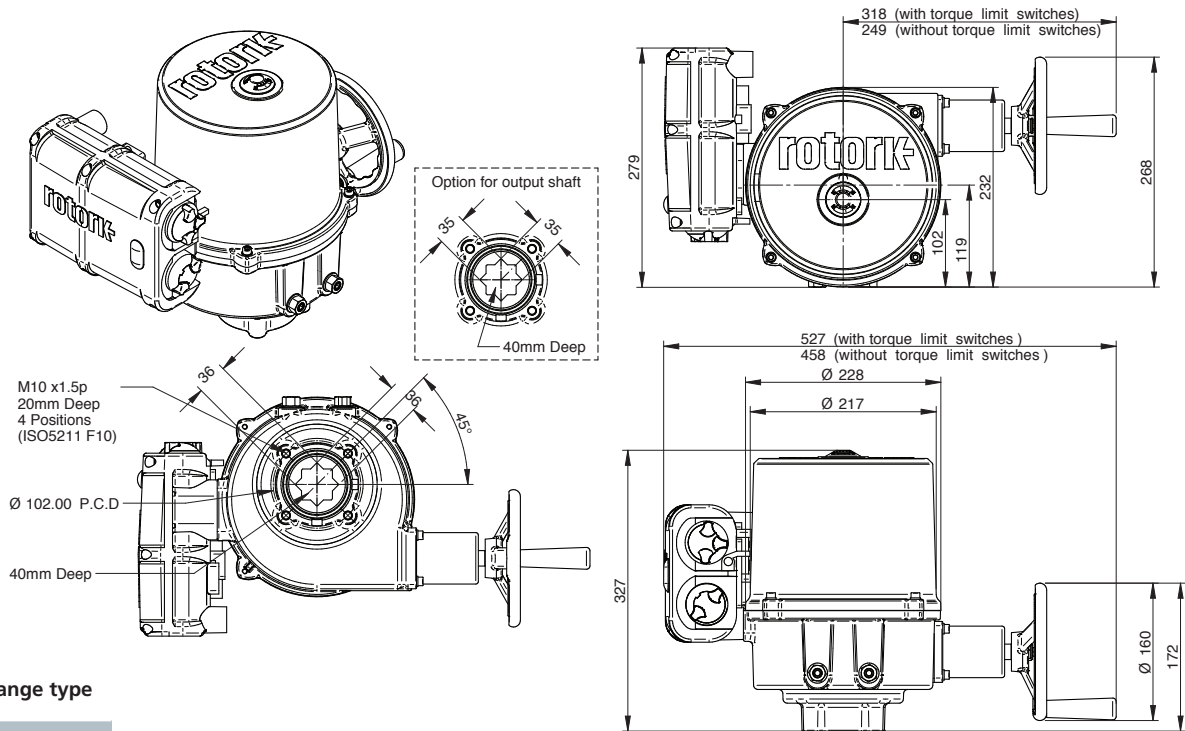
Flange type

F07

	110 V, 220 V AC 1-Phase	H=252
*ROMpak-2/3	220 V, 380 V, 440 V AC three-phase	H=312
	12 V, 24 V AC/DC	

# Dimensional Data

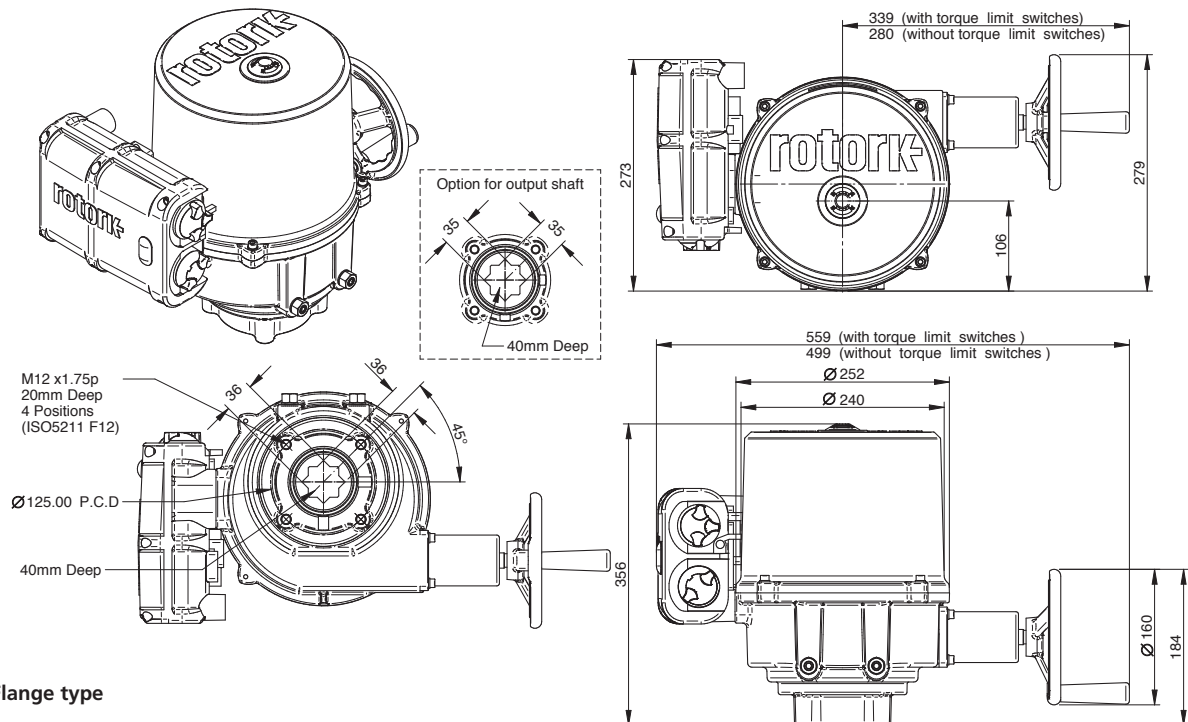
## ROMpak-4/5/6



Flange type

F10

## ROMpak-7



Flange type

F12



## Client Support and Site Services

# rotork®

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 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 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](http://www.rotork.com) to identify your nearest Rotork service 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 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

# rotork®

[www.rotork.com](http://www.rotork.com)

A full listing of our worldwide sales and service network is available on our website.

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Rotork is a corporate member of the Institute of Asset Management



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Issue 06/19

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](http://www.rotork.com)

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