

rotork®

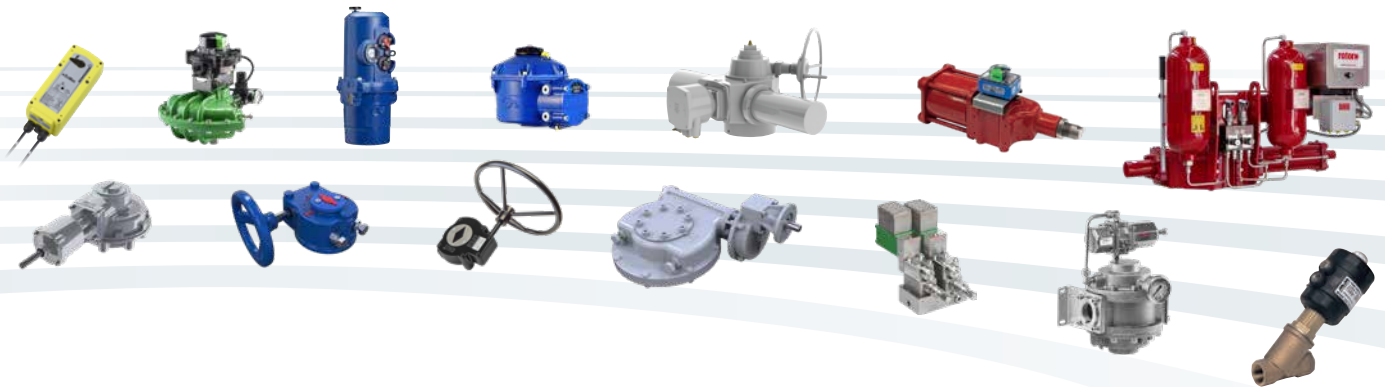
Keeping the World Flowing
for Future Generations

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 infrequently or continuously, Rotork products will operate reliably and efficiently.

› Quality-driven global manufacturing

We offer products that have been designed with over 60 years of industry and application knowledge.

Our research and development ensures cutting edge products are available for multiple applications across multiple industries.

› Customer focused service and worldwide support

Rotork solve customer challenges and develop new solutions that are tailored to the needs of our clients.

We offer dedicated, expert service and support from initial inquiry, to product installation, to long term after sales care.

› 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

Section	Page	Section	Page
Rotork	2	Circuit Diagram and Optional Extras	10
Product Overview	4	ROM	10
Design Features	6	ROMpak 3-Phase	11
Performance Data	8	ROMpak 1-Phase	12
ROM and ROMpak	8	Dimensional Data	13
ROMH and ROMpakH	9	Client Support and Site Services	18



Comprehensive product range serving multiple industries

Rotork products offer improved efficiency, assured safety and environmental protection across all sectors within the Oil and Gas, Water and Power, and Chemical, Process and Industrial industries.

Market leaders and technical innovators

We have been the recognised market leader in flow control for over 60 years.

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

Global presence, local service

We are a global company with local support.

Manufacturing sites, service centres and sales offices throughout the world provide unrivalled customer services, fast delivery and ongoing, accessible support.

Corporate social responsibility is at the heart of our business

We are socially, ethically and 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



ROM Actuator

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)[†]
- Humidity: 30% to 95%
- Corrosion protection: C5-M low durability as standard (higher durability available on request)
- Noise level originated by ROM range does not exceed 65 dB(A) at 1m

Various Options

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

Certificates

- ISO 9001, CE, CSA, BV

[†] 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 range design life

Model	Rated Torque (Nm)	MTBF (Years)	Class A: on/off (cycles/hour)	Number of Cycles at running torque	
				50% rated	30% rated
ROM-1	35	90	15	25,000	N/A
ROM-A	50	14	15	25,000	N/A
ROM-2	90	73	15	25,000	50,000
ROM-3	150	59	10	25,000	50,000
ROM-4	400	19	10	25,000	50,000
ROM-5	500	N/A	10	25,000	50,000
ROM-6	650	N/A	10	25,000	N/A
ROM-7	800	N/A	10	25,000	N/A
ROMH-1	8	N/A	15	25,000	N/A
ROMH-2	10	N/A	15	25,000	N/A
ROMH-3	13	N/A	15	25,000	N/A

One cycle is defined as one full Open stroke of the valve followed by one full Close stroke of the valve. Torque profile considered includes initial and final 5% of the stroke at rated torque and the remaining stroke at running torque.

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*[™] 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)[†] operation

[†] 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*[™], Profibus[®], Modbus[®] and Foundation Fieldbus[®]
- 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*[™], Profibus[®], Modbus[®] and Foundation Fieldbus[®]
- 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)	Mounting Flange ISO 5211
ROM-1*	2	4	Hexagonal Drive	14 / 11 / 9	F03/F05
ROM-A*	3	5	Hexagonal Drive	17 / 14	F05/F07
ROM-2	11	13	Handwheel	22 / 17	F07
ROM-3	11	13	Handwheel	22 / 17	F07
ROM-4	22	24	Handwheel	36 / 35	F10
ROM-5	22	24	Handwheel	36 / 35	F10
ROM-6	22	24	Handwheel	36 / 35	F10
ROM-7	26	28	Handwheel	36 / 35	F12

NOTE: Weight data based on 1-phase 50 Hz supply.

*Not suitable for butterfly valves which may back drive.

Performance Data

12V/24V*

Model	Torque Nm (lbf.ft)	Operating Time (sec)	Motor Power (W)	12 VDC/VAC CURRENT (A)		24 VDC/VAC CURRENT (A)	
				Run	Lock	Run	Lock
ROM-1	35 (26)	20	4.2	1.2	2.2	0.6	1.2
ROM-A	50 (37)	30	4.2	1.2	2.2	0.6	1.2
ROM-2	90 (66)	17	43	2.5	20	1.1	11
ROM-3	150 (111)	28	43	3.2	20	1.5	11
ROM-4	400 (295)	23	92	11	42	5.5	21
ROM-5	500 (369)	30	92	11	42	5.5	21
ROM-6	650 (479)	38	92	11	42	5.5	21
ROM-7	800 (590)	46	92	11	42	5.5	21

*12/24 VAC not available for ROMpak.

1-Phase

Model	Torque Nm (lbf.ft)	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 (26)	15	13	5	0.5	0.4	0.23	0.25
ROM-A	50 (37)	22	19	5	0.5	0.4	0.23	0.25
ROM-2	90 (66)	17	15	43	1.2	1.7	0.65	1.0
ROM-3	150 (111)	28	24	43	1.2	1.7	0.65	1.0
ROM-4	400 (295)	20	17	105	2.3	5.0	0.85	2.3
ROM-5	500 (369)	26	22	105	2.3	5.0	0.85	2.3
ROM-6	650 (479)	33	28	105	2.3	5.0	0.85	2.3
ROM-7	800 (590)	40	34	105	2.3	5.0	0.85	2.3

Performance Data

3-Phase

Model	Torque Nm (lbf.ft)	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 (66)	16	14	46	1.3	1.8	0.45	0.83	0.58	0.80
ROM-3	150 (111)	26	22	46	1.3	1.8	0.45	0.83	0.58	0.80
ROM-4	400 (295)	20	17	105	2.45	4.5	0.7	2	0.9	1.77
ROM-5	500 (369)	26	22	105	2.45	4.5	0.7	2	0.9	1.77
ROM-6	650 (479)	33	28	105	2.45	4.5	0.7	2	0.9	1.77
ROM-7	800 (590)	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	✓	✓	✓	✓	✓

NOTE: Power supply voltage and frequency tolerances maintain actuator rated torque; duty cycle and operating speed are not guaranteed.

ROMH and ROMpakH

Mechanical Data

Model	ROMH Weight (kg)	ROMpakH Weight (kg)	Manual Override	Output Drive (mm)	Mounting Flange ISO 5211
ROMH-1*	2	4	Hexagonal Drive	14 / 11 / 9	F03/F05
ROMH-2*	3	5	Hexagonal Drive	14 / 11 / 9	F03/F05
ROMH-3*	11	13	Hexagonal Drive	14 / 11 / 9	F03/F05

*Not suitable for butterfly valves which may back drive.

Performance Data

12V/24V*

Model	Power Supply	Torque Nm (lbf.ft)	Operating Time (sec)	Motor Power (W)	Current (A)	
					Run	Lock
ROMH-1	12 VDC	8 (6)	5.5	4.75	1.2	2.2
	24 VAC	8 (6)	4.5	4.75	0.65	1.2
ROMH-2	24 VDC	10 (7)	4.5	4.75	0.65	1.2

1-Phase

Model	Power Supply	Torque Nm (lbf.ft)	Operating Time (sec)		Motor Power (W)	Current (A)	
			50Hz	60Hz		Run	Lock
ROMH-3	110 V	13 (10)	4.5	4.3	6.5	0.36	0.4
	220 V	13 (10)	4.5	4.3	6.5	0.23	0.25

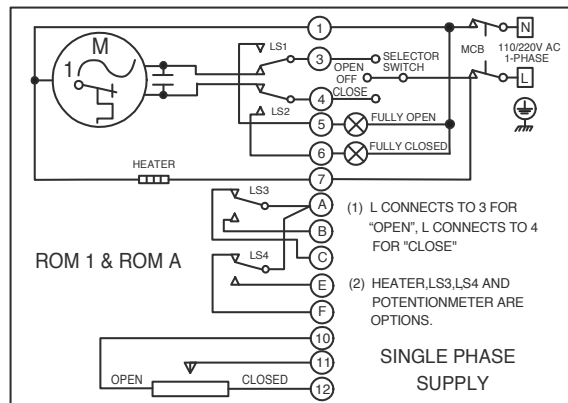
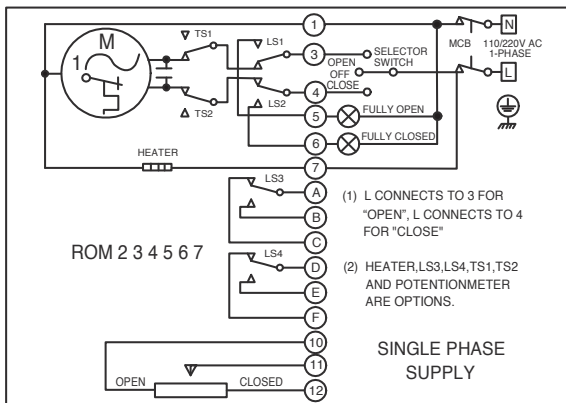
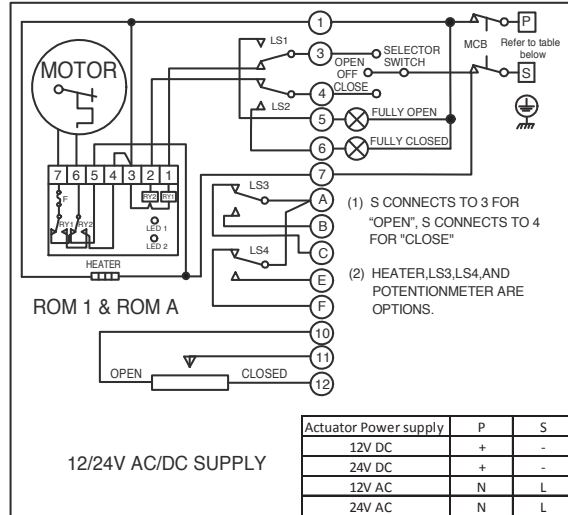
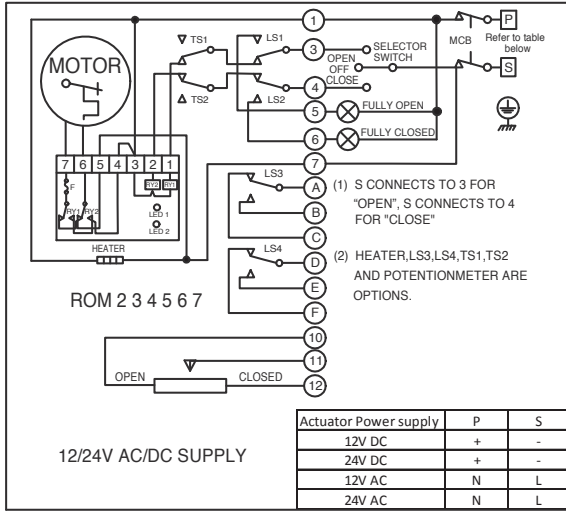
Operating Voltages:

	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

NOTE: Power supply voltage and frequency tolerances maintain actuator rated torque; duty cycle and operating speed are not guaranteed.

Circuit Diagram and Optional Extras

ROM Wiring Diagram



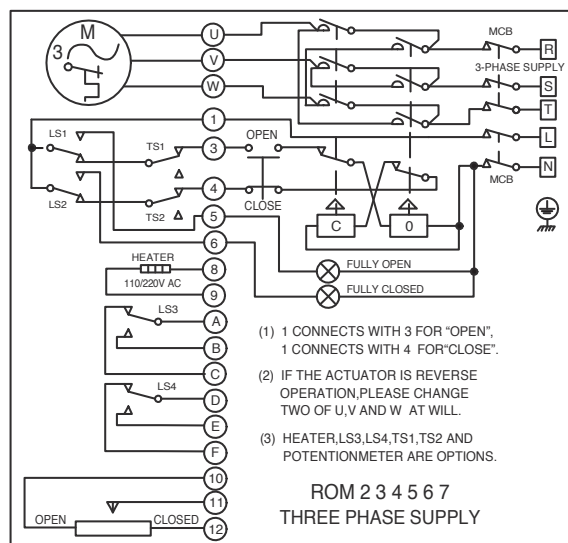
Optional Extras:

Torque Switches

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

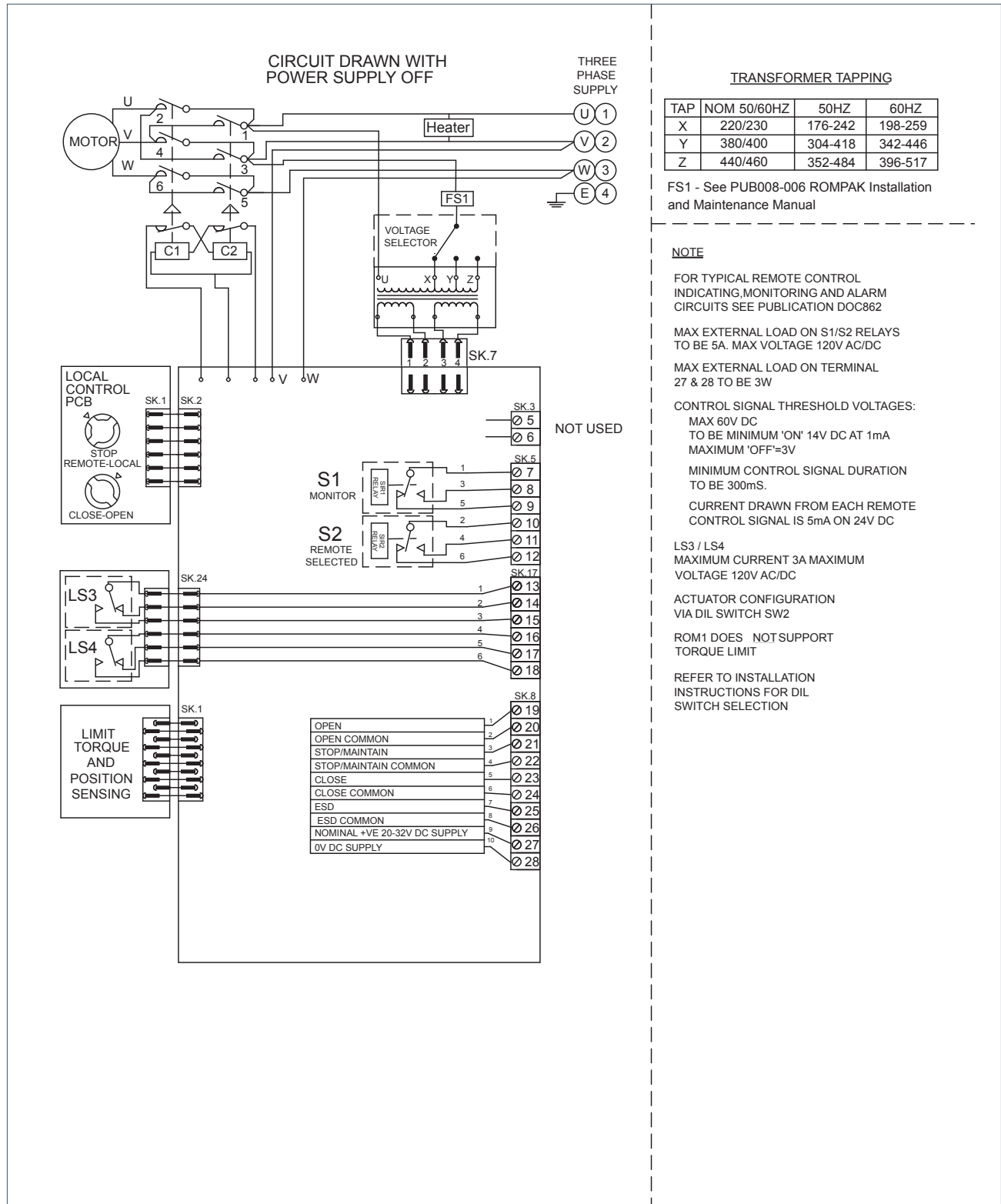
Anti-condensation Heater

This heater is available for all sizes.



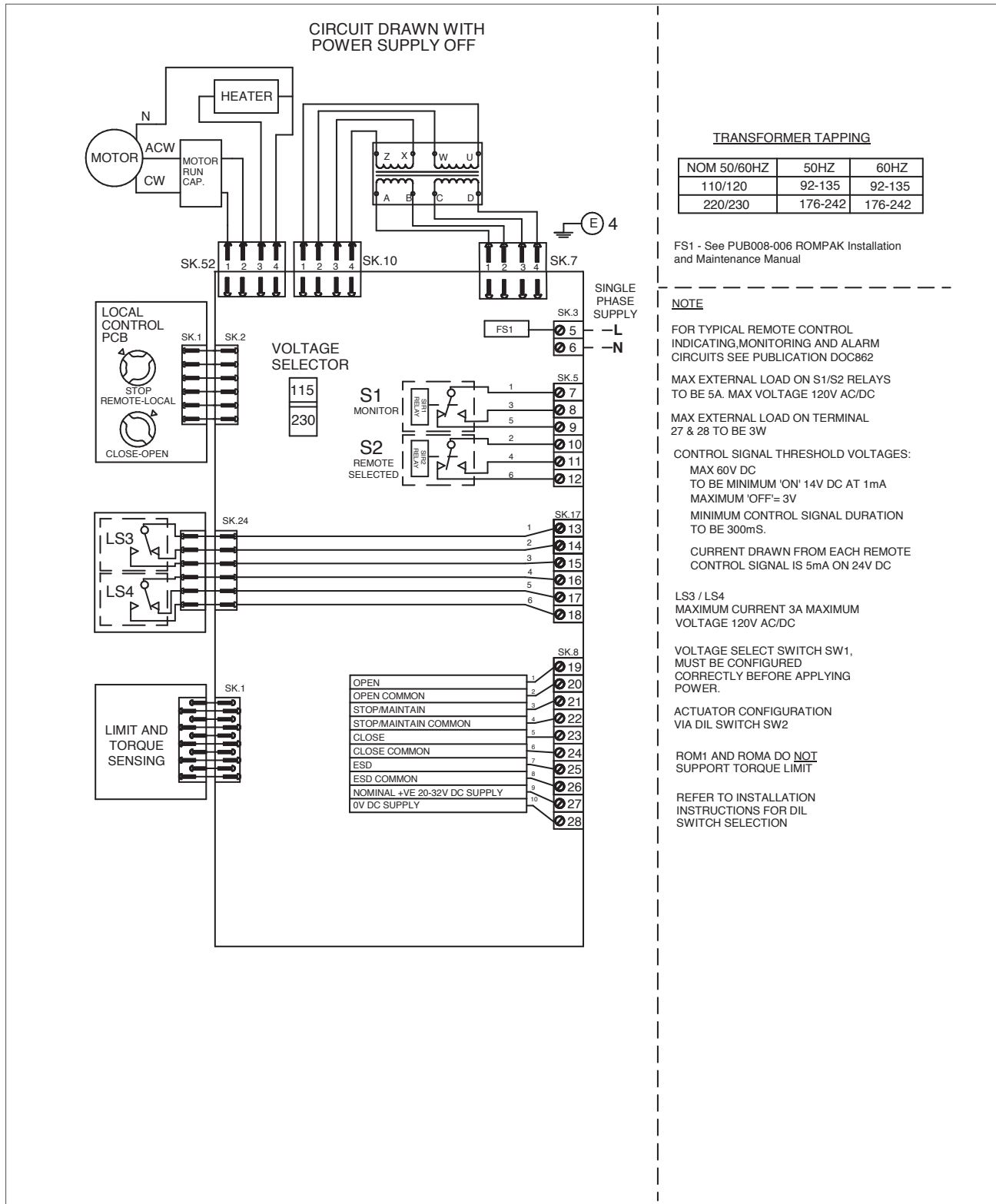
Circuit Diagram and Optional Extras

ROMpak 3-Phase Wiring Diagram



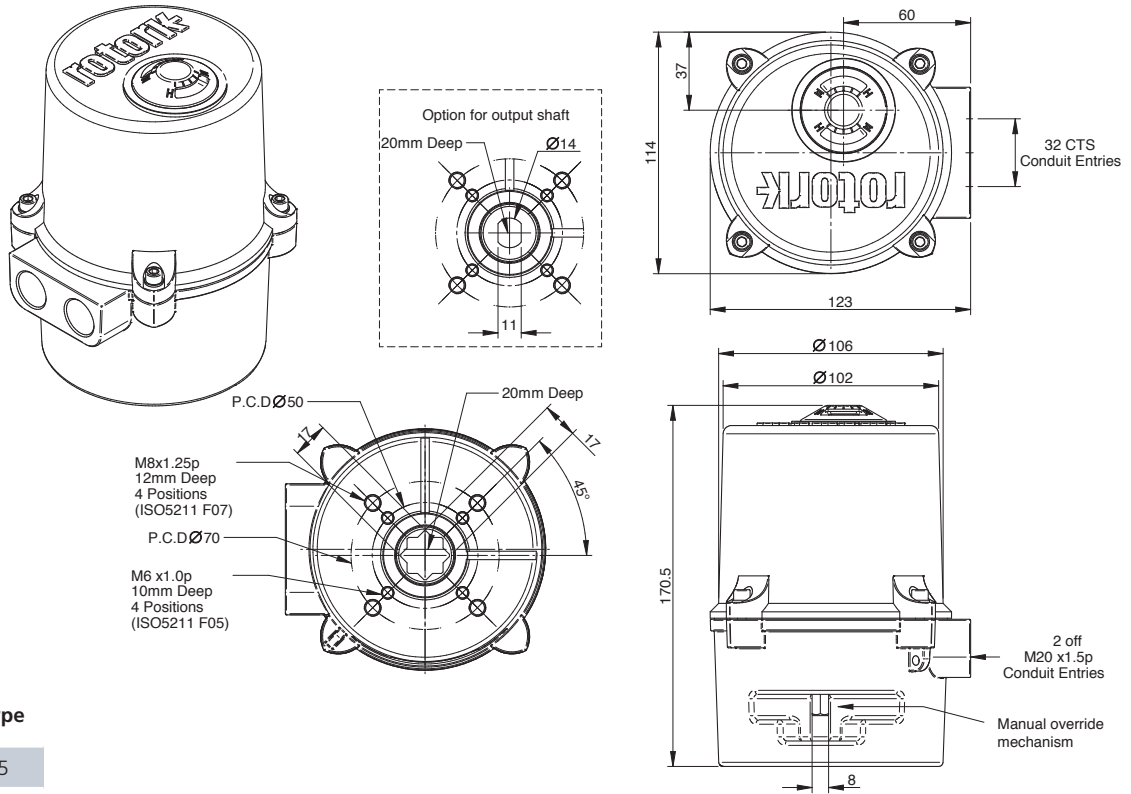
Circuit Diagram and Optional Extras

ROMpak 1-Phase Wiring Diagram

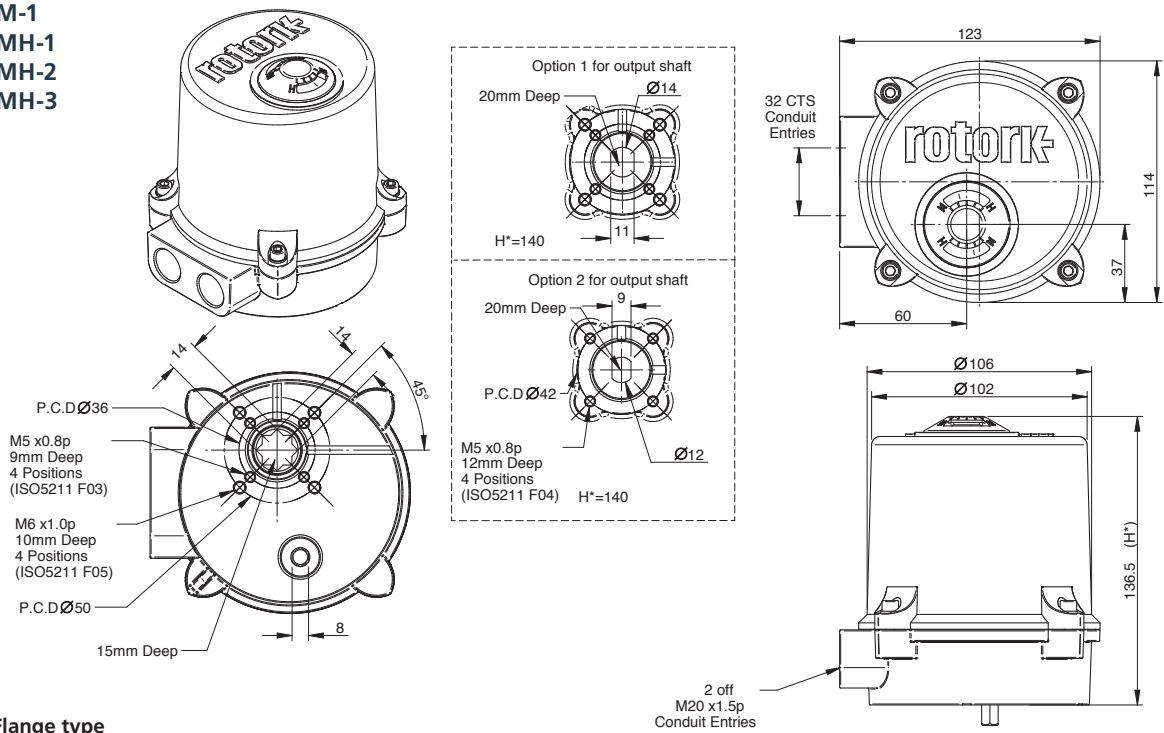


Dimensional Data

ROM-A

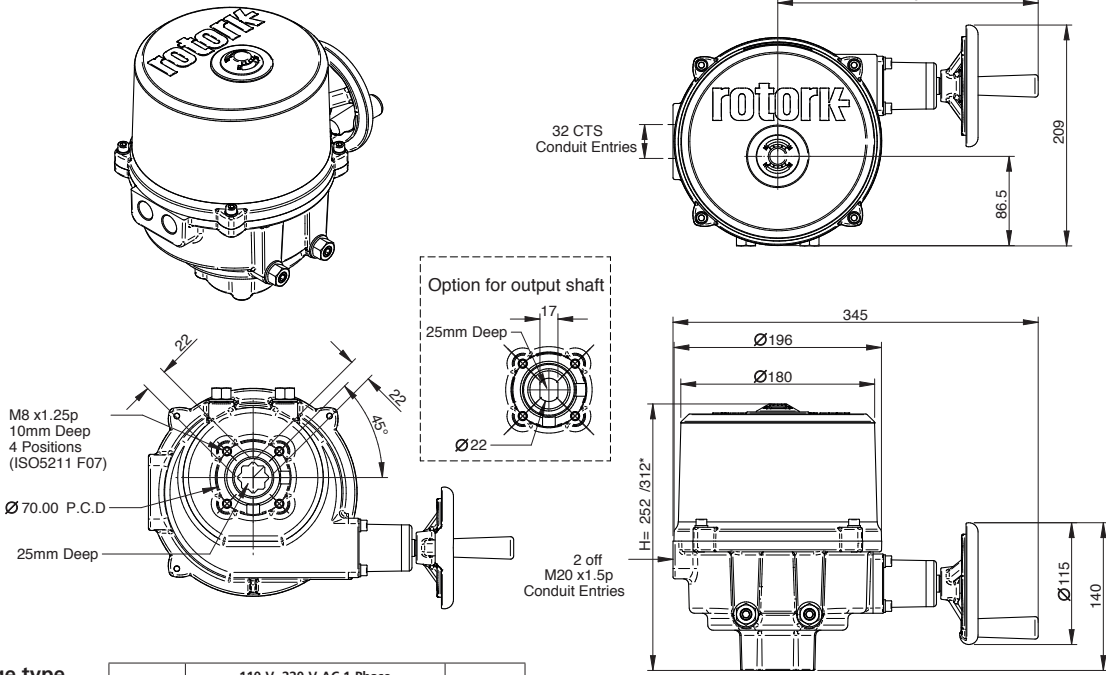


ROM-1 ROMH-1 ROMH-2 ROMH-3



Dimensional Data

ROM-2/3

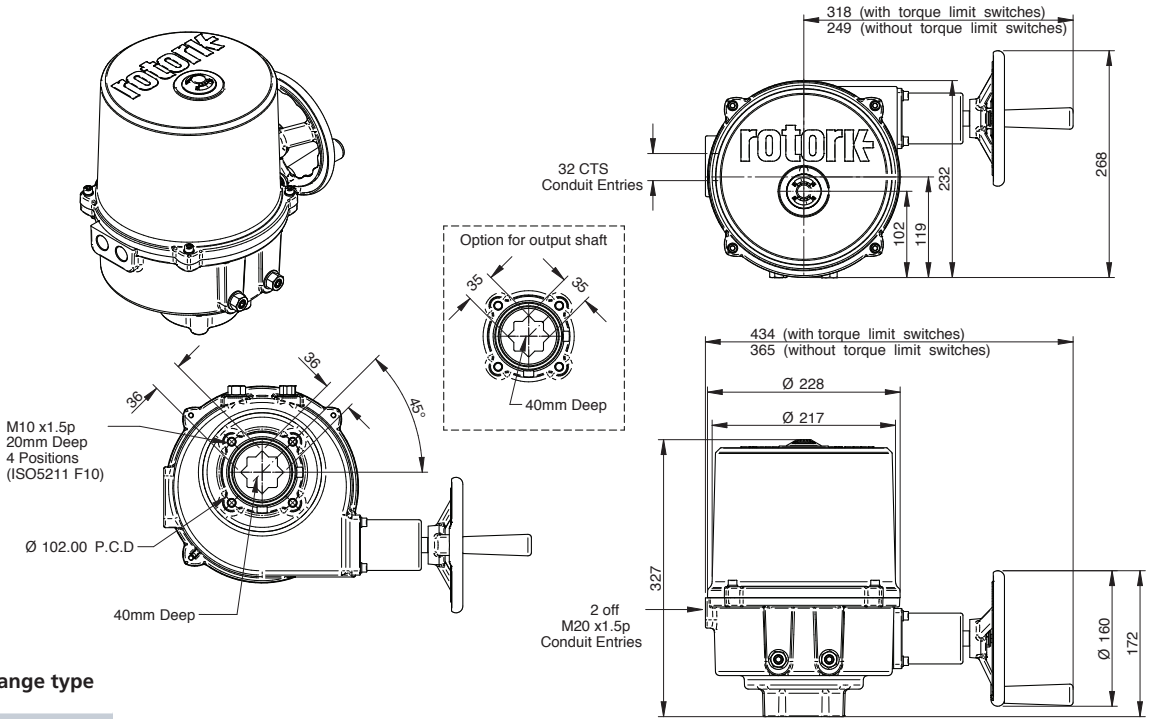


Flange type

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

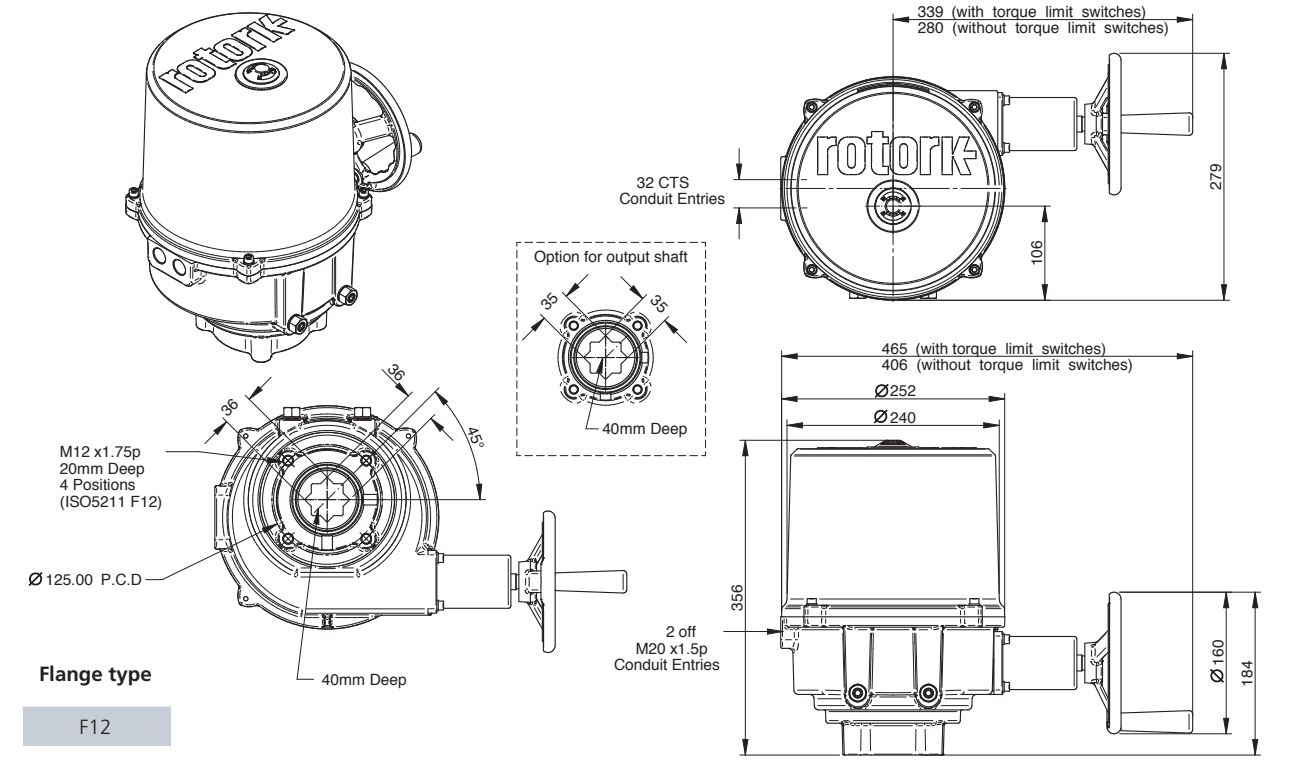


Flange type

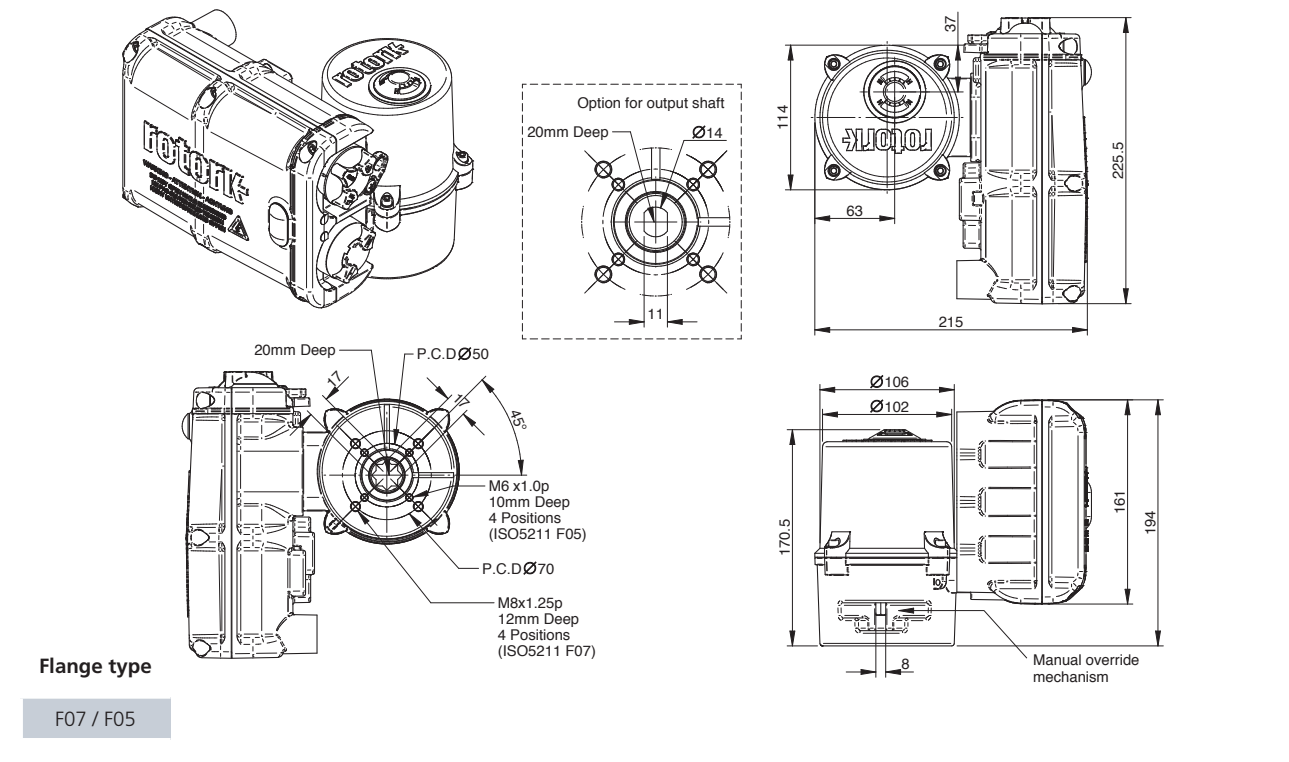
F10

Dimensional Data

ROM-7

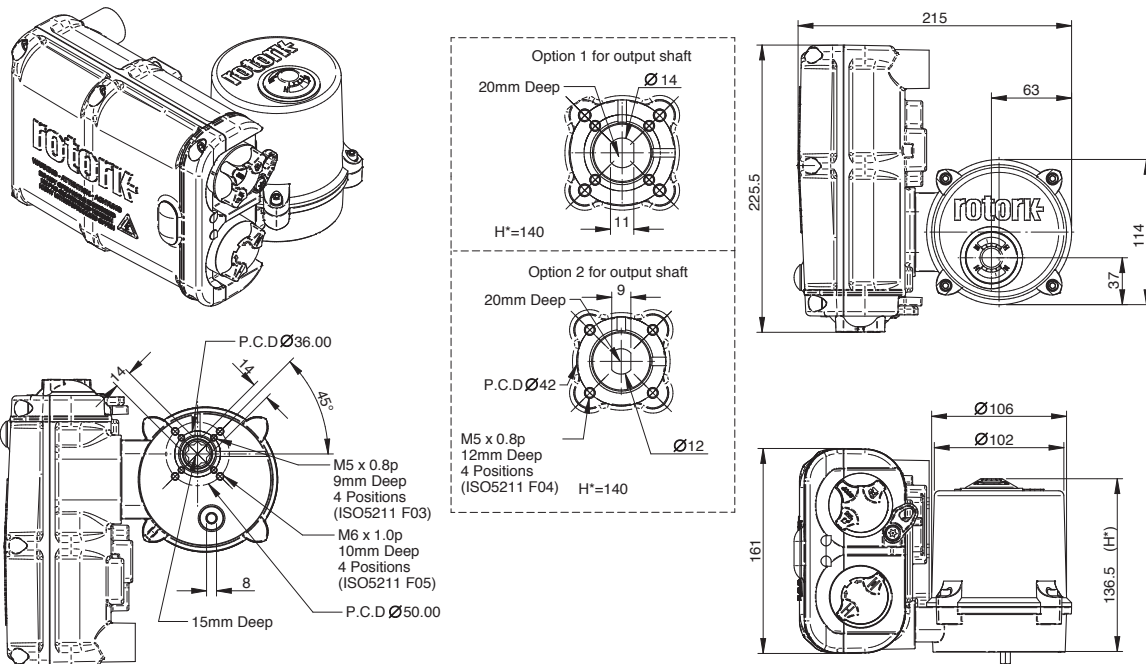


ROMpak-A



Dimensional Data

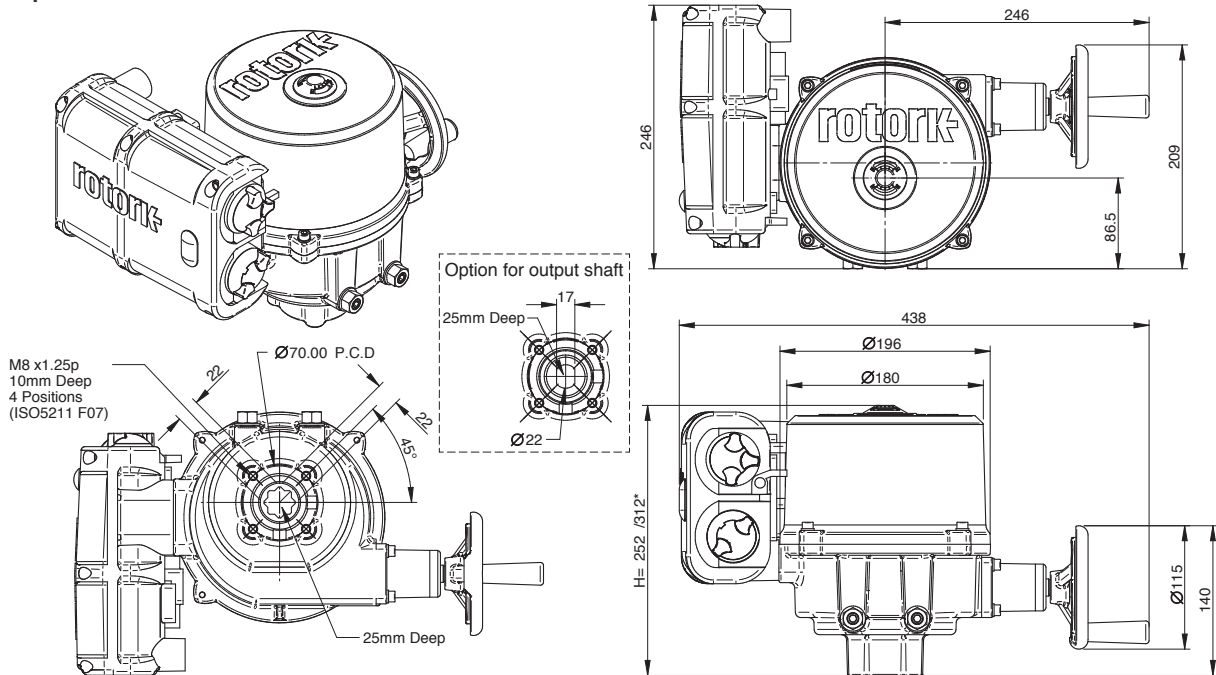
ROMpak-1, ROMpakH-1, ROMpakH-2, ROMpakH-3



Flange type

F05 / F03

ROMpak-2/3



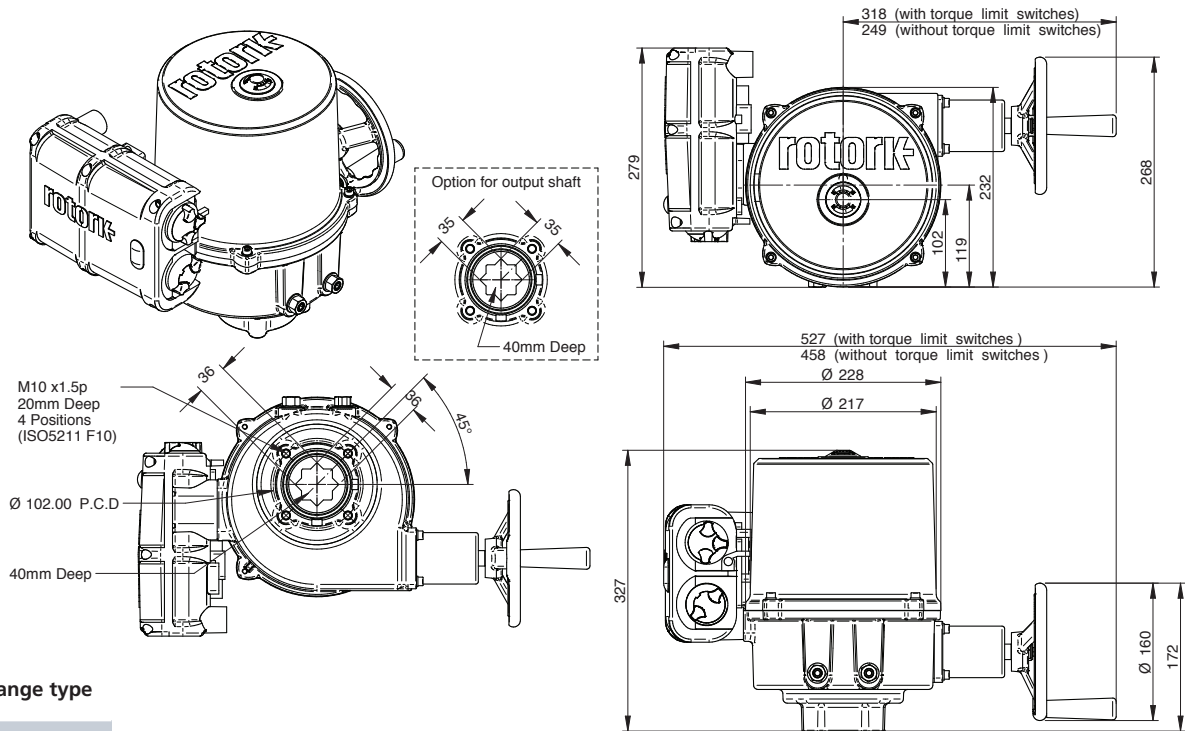
Flange type

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

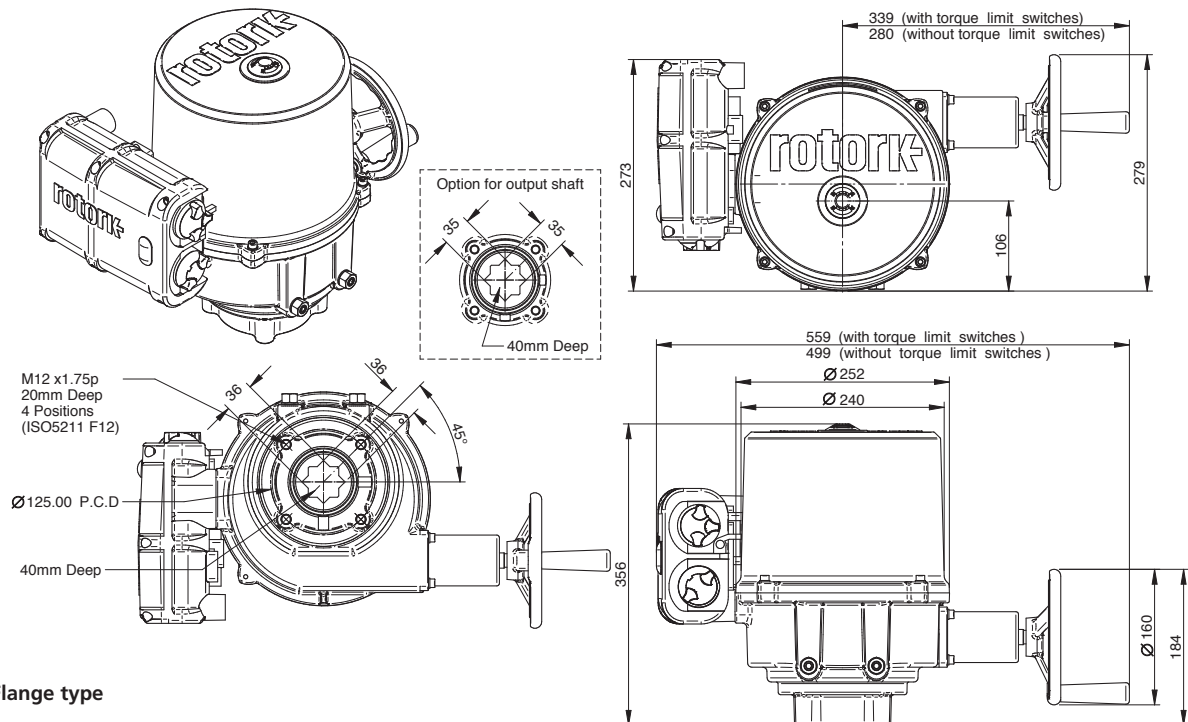
ROMpak-4/5/6



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 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

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

Rotork plc
Brassmill Lane, Bath, UK
tel +44 (0)1225 733200
fax +44 (0)1225 333467
email mail@rotork.com

Rotork is a corporate member of the Institute of Asset Management



PUB008-001-00
Issue 02/20

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

The name Rotork is a registered trademark. Rotork recognises all registered trademarks. Published and produced in the UK by Rotork. POWTG0220