

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

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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)[†]
- 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	50,000
ROM-A	50	14	15	25,000	50,000
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	50,000
ROM-7	800	N/A	10	25,000	50,000
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*	2	4	Hexagonal Drive	14 / 11 / 9	F03/F05
ROMH-3*	2	4	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

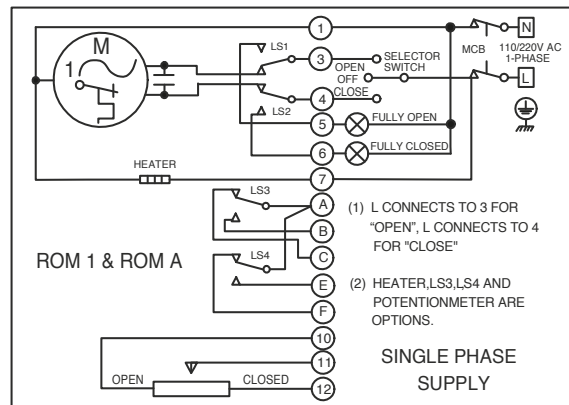
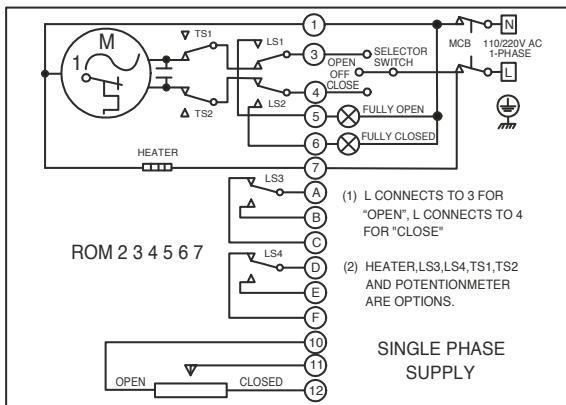
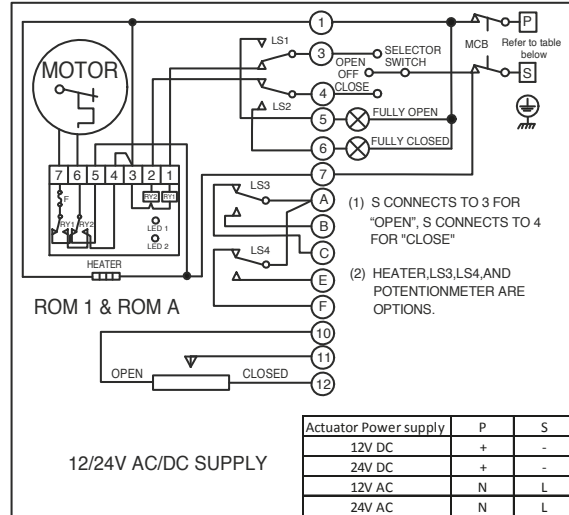
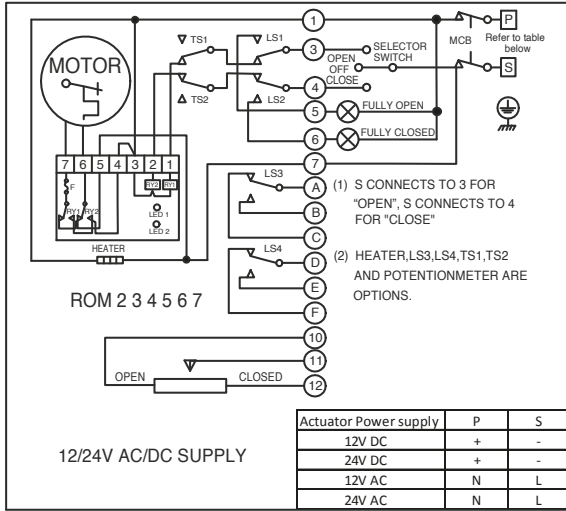
Operating Voltages:

	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



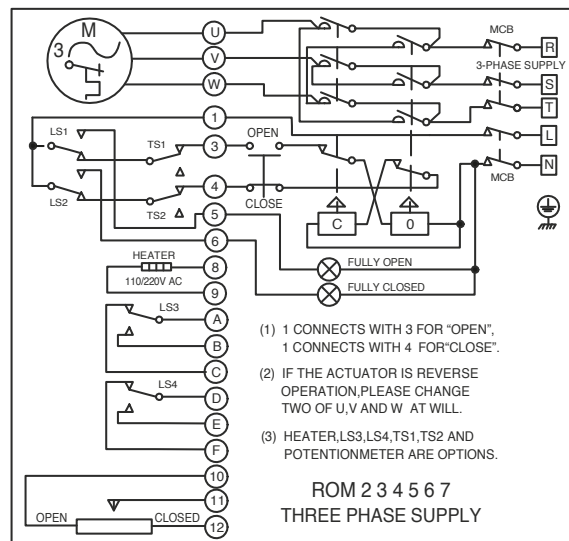
Optional Extras:

Torque Switches

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

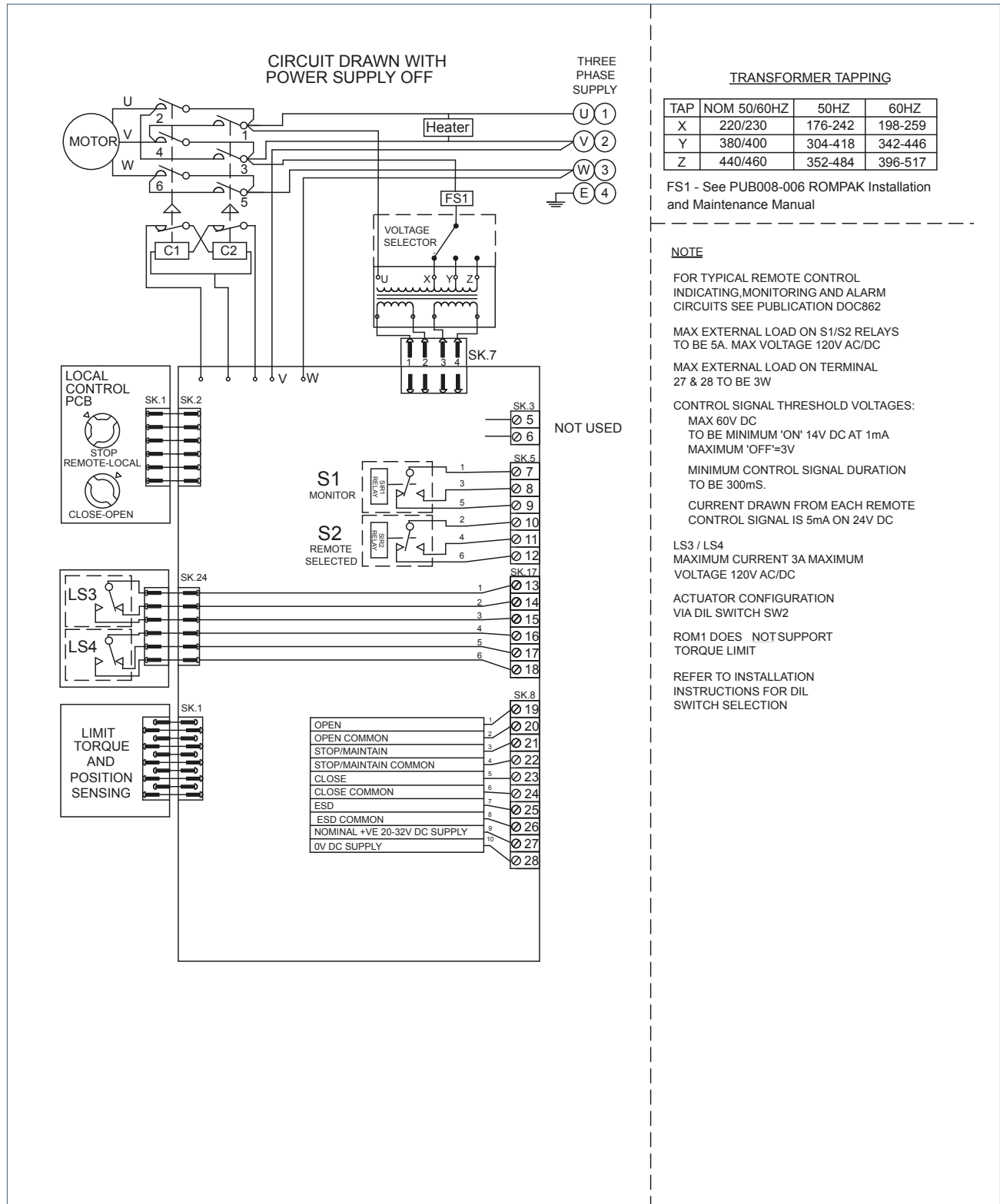
Anti-condensation Heater

This heater is available for all sizes.



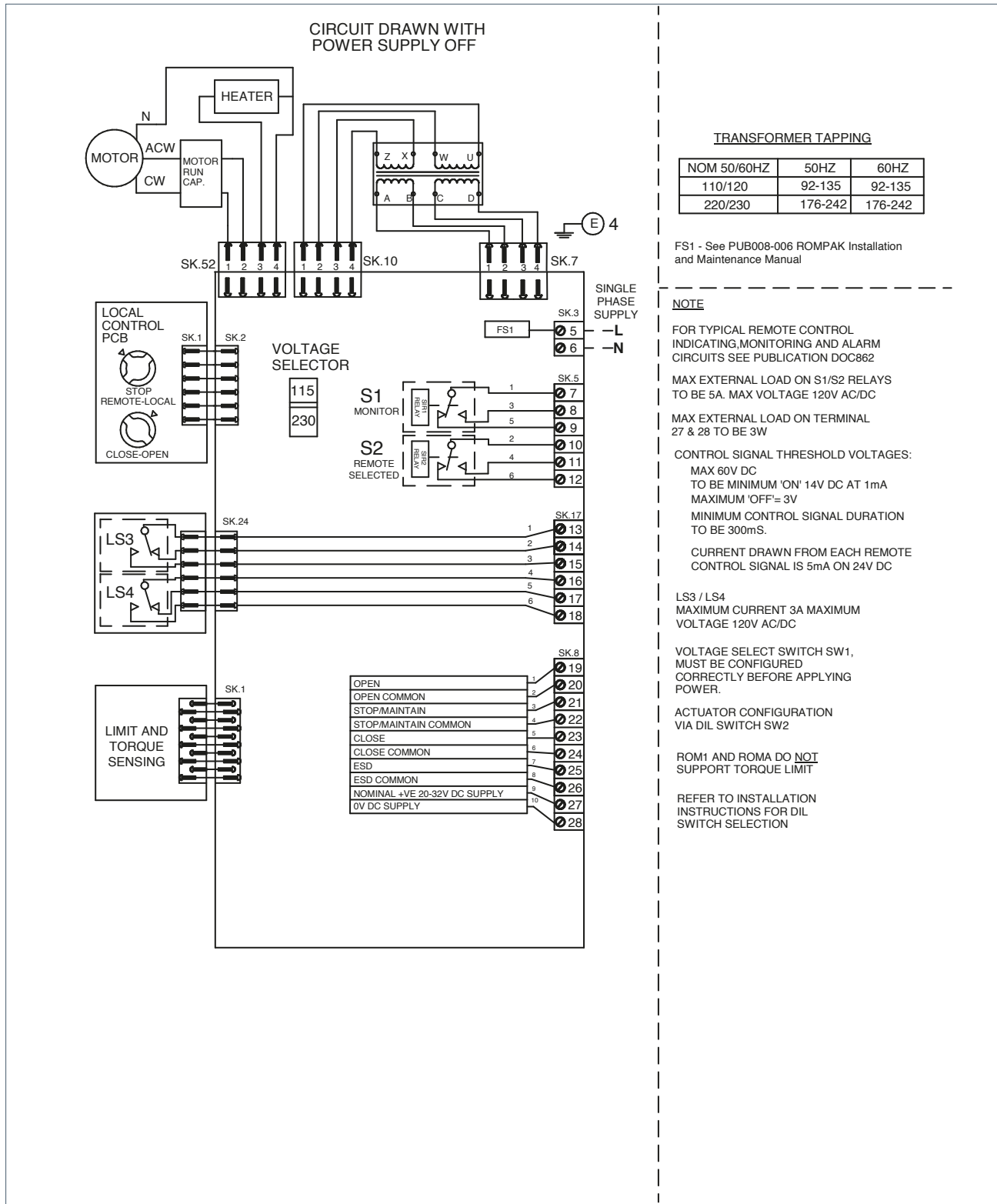
Circuit Diagram and Optional Extras

ROMpak 3-Phase Wiring Diagram



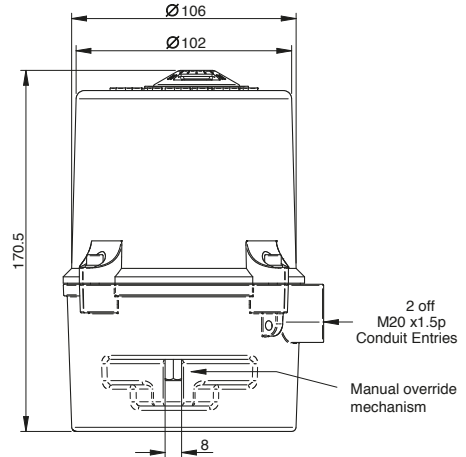
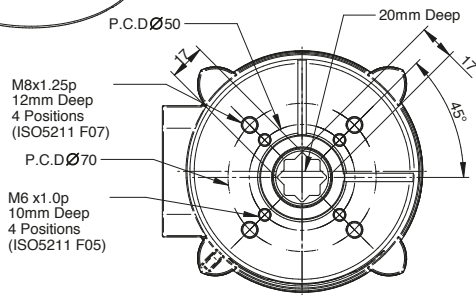
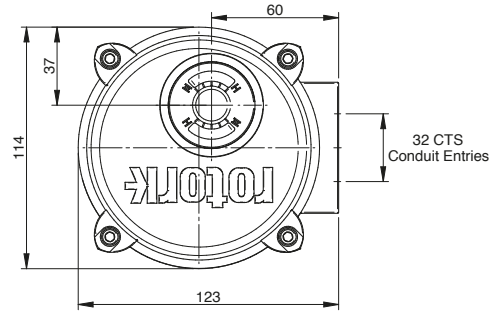
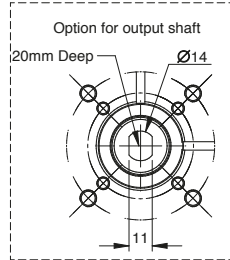
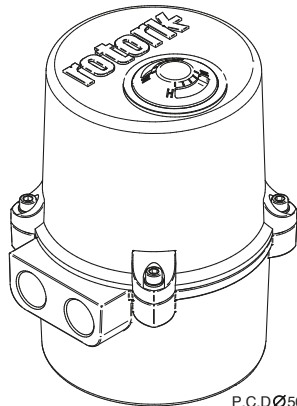
Circuit Diagram and Optional Extras

ROMpak 1-Phase Wiring Diagram



Dimensional Data

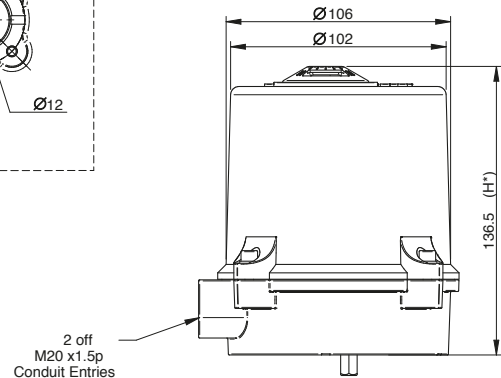
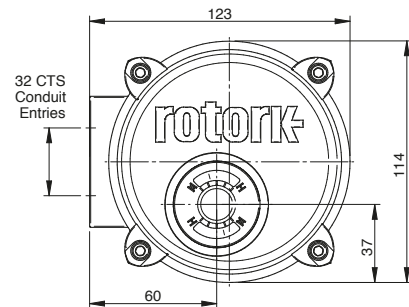
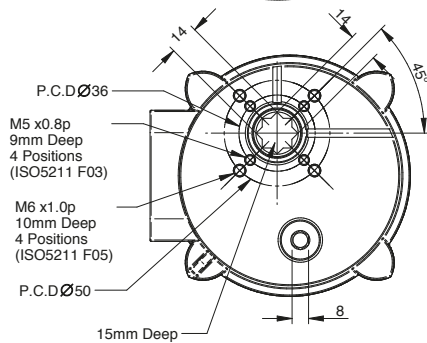
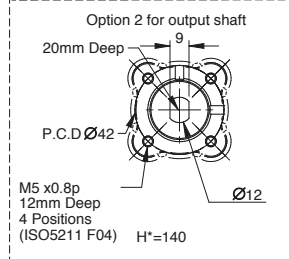
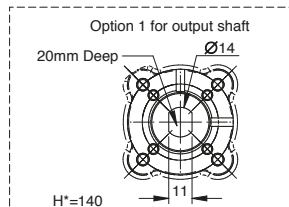
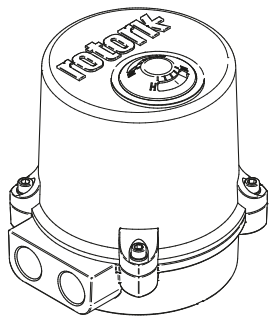
ROM-A



Flange type

F07 / F05

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

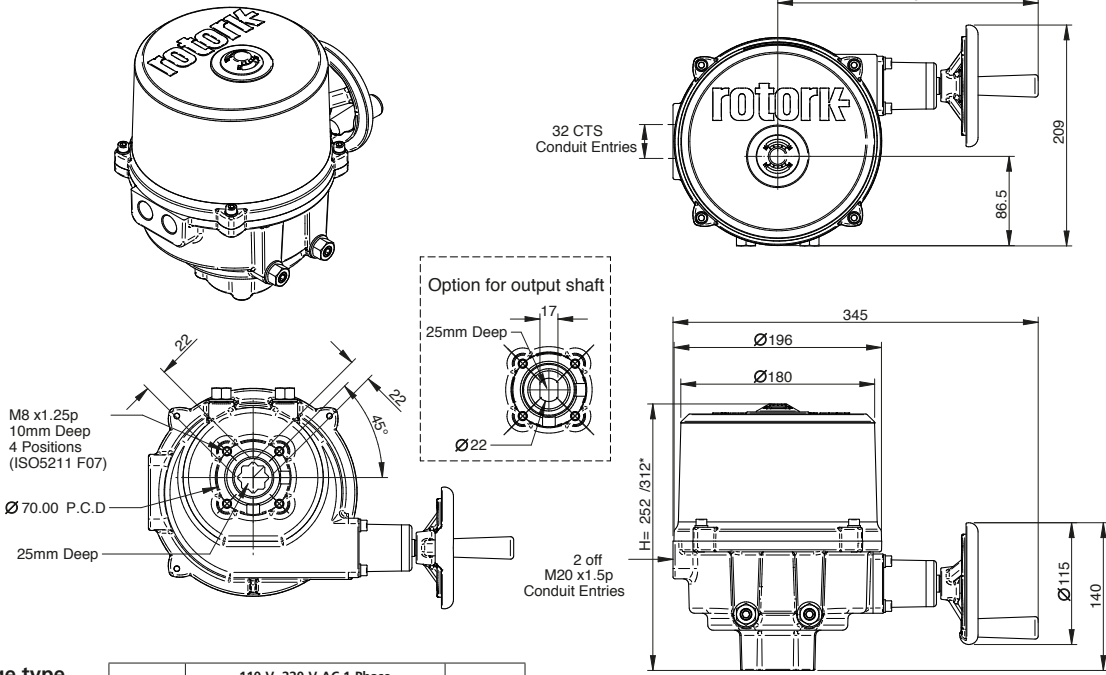


Flange type

F05 / F03

Dimensional Data

ROM-2/3

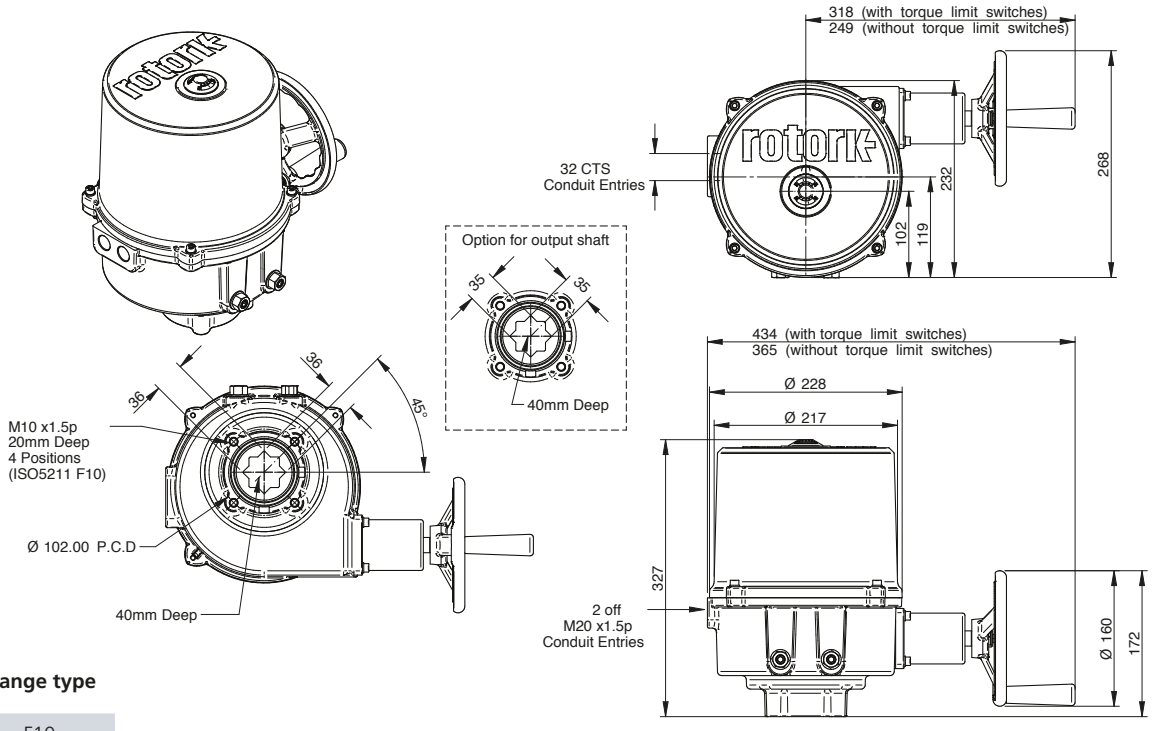


Flange type

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

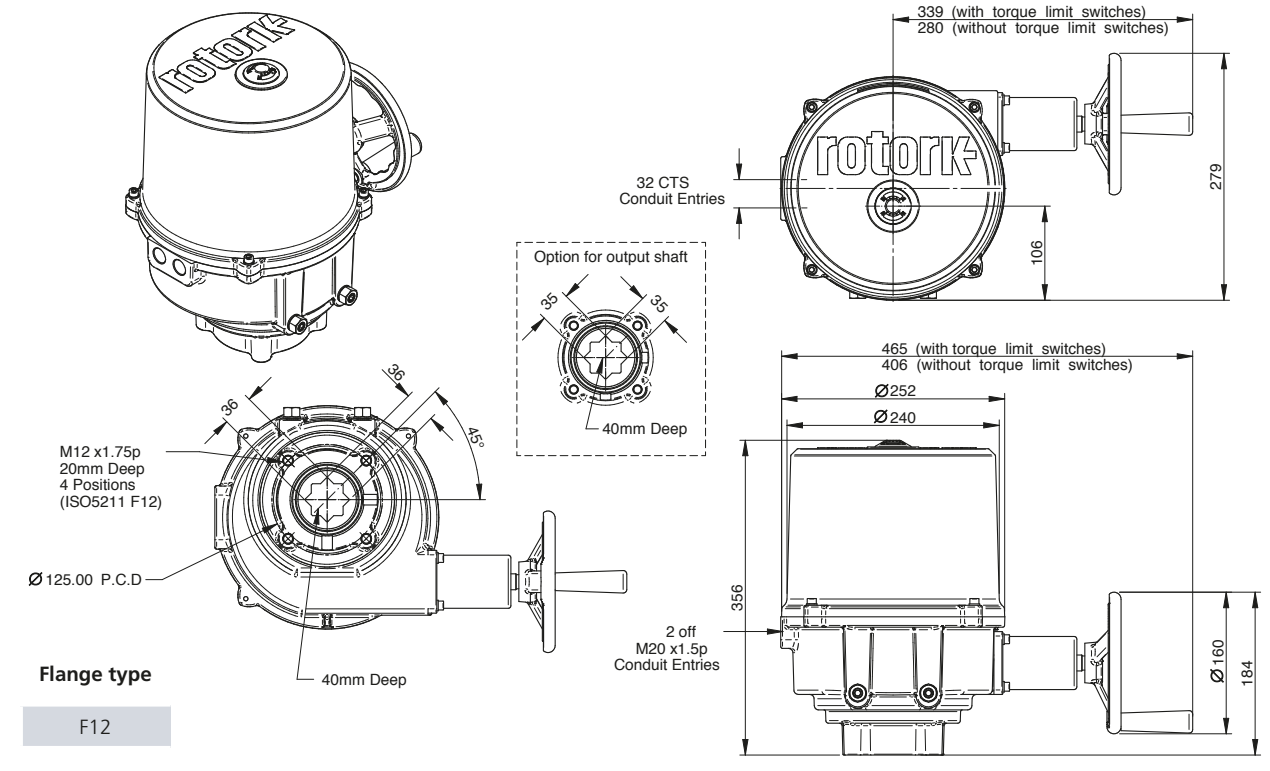


Flange type

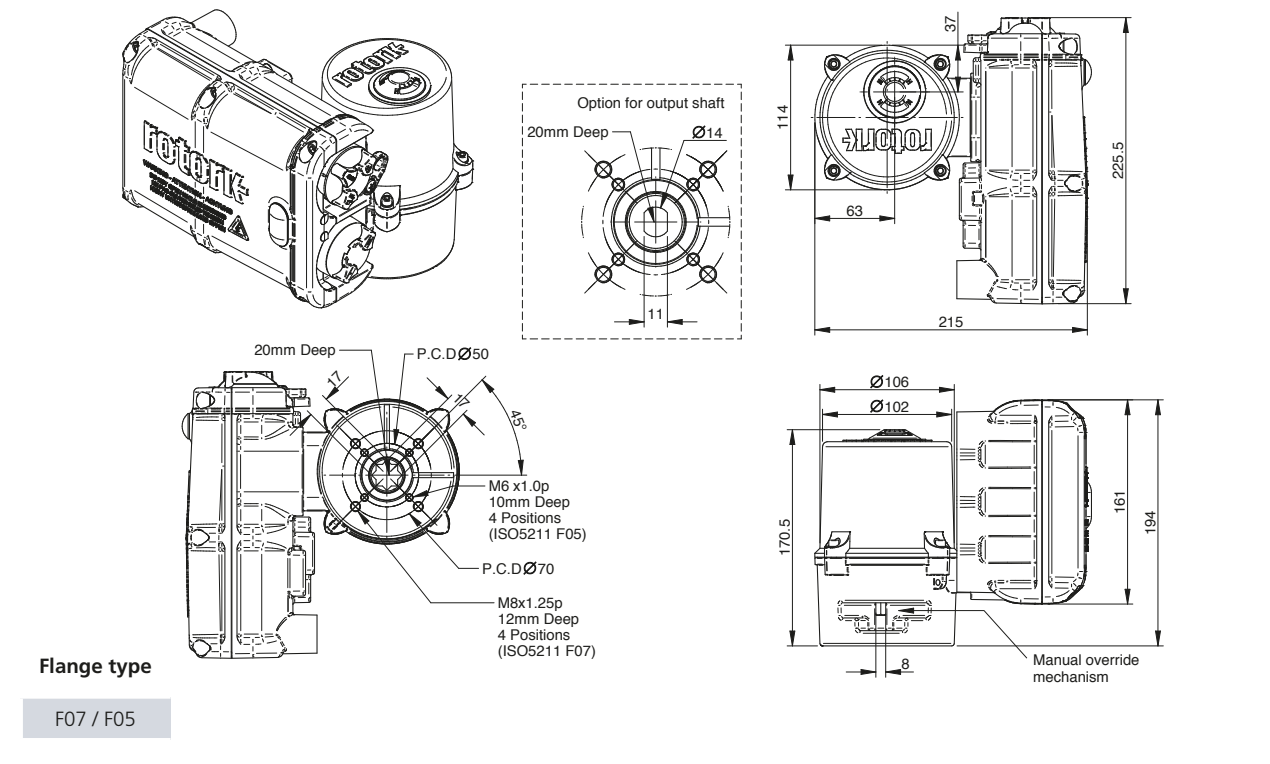
F10

Dimensional Data

ROM-7

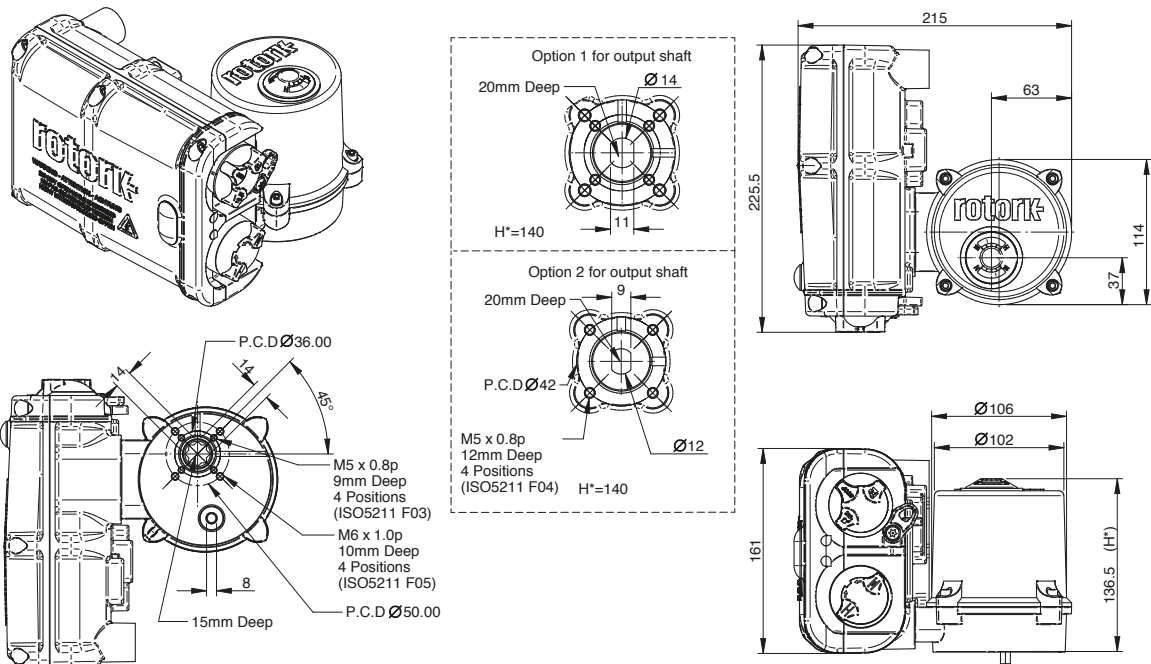


ROMpak-A



Dimensional Data

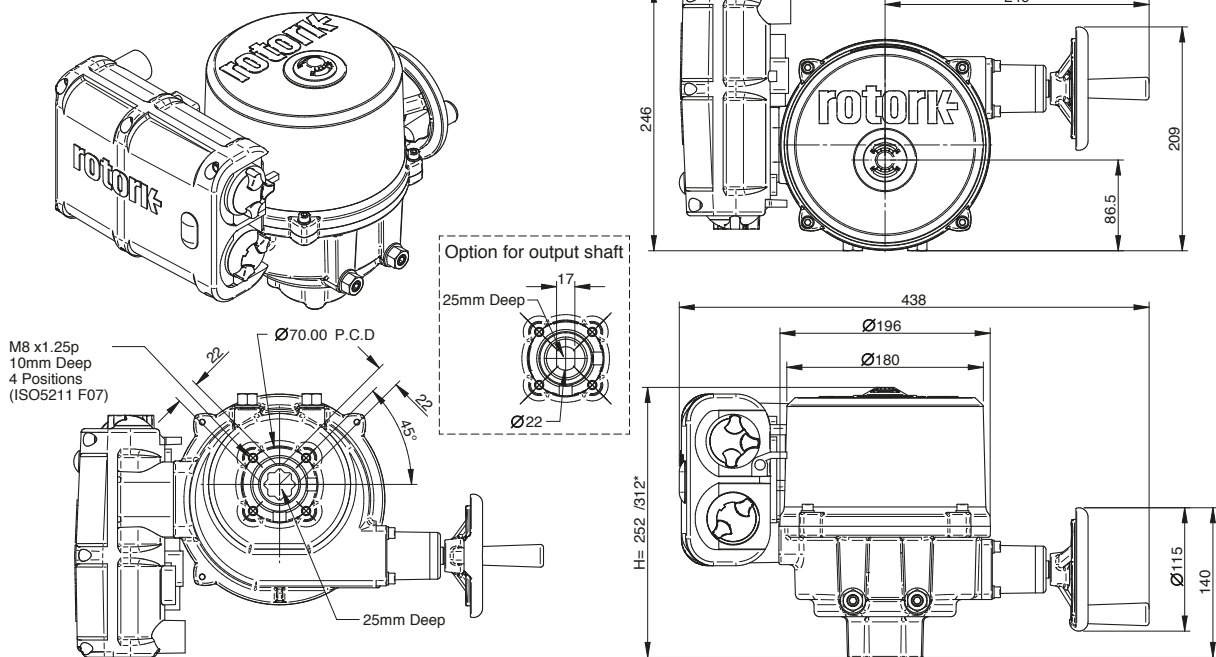
ROMpak-1, ROMpakH-1, ROMpakH-2, ROMpakH-3



Flange type

F05 / F03

ROMpak-2/3



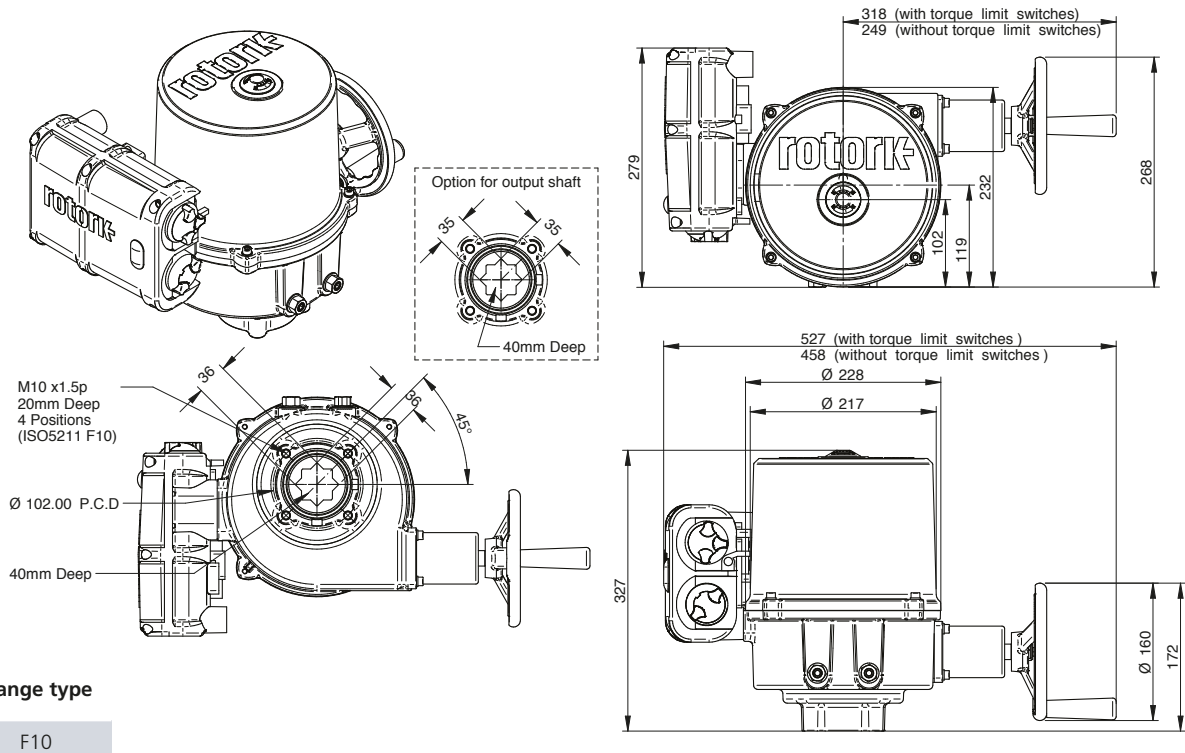
Flange type

F07

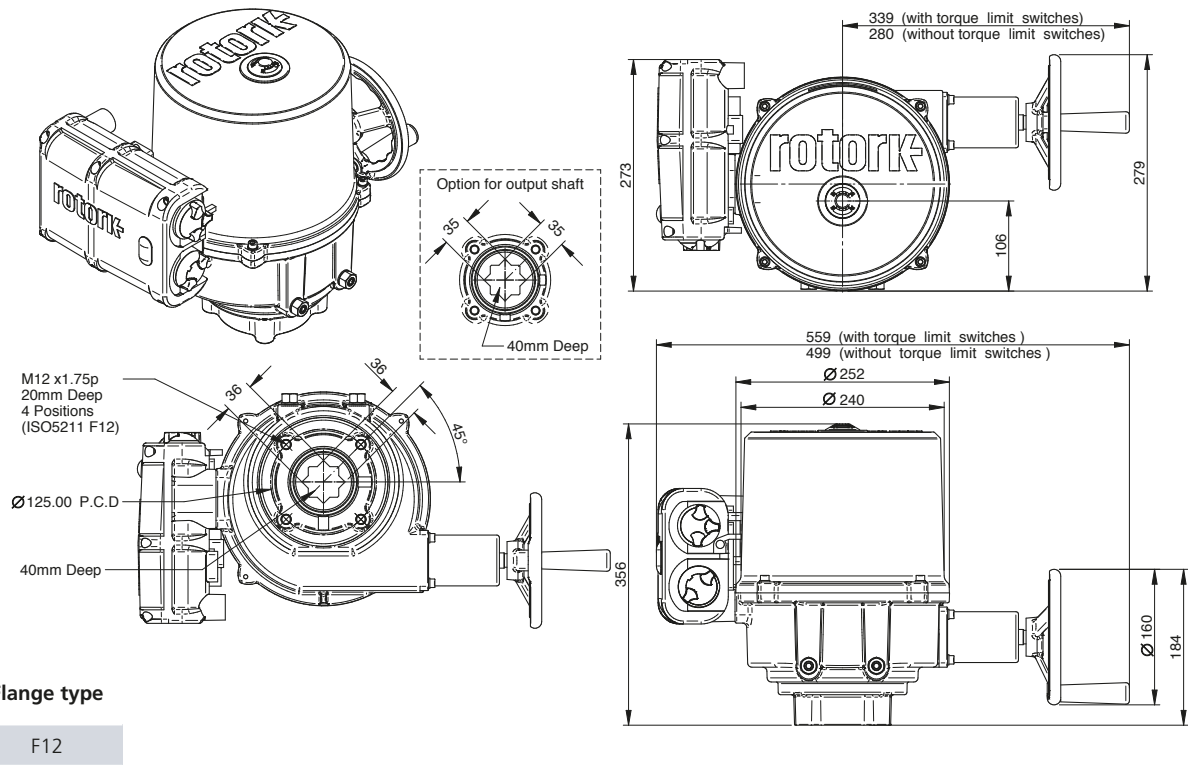
	110 V, 220 V AC 1-Phase	H=252
*ROMpak-2/3	220 V, 380 V, 440 V AC three-phase	H=312
	12 V, 24 V AC/DC	

Dimensional Data

ROMpak-4/5/6



ROMpak-7



Site Services

Rotork understand the value of prompt, punctual and superior site services. Rotork Site Services have specialist expertise, insight and experience in service support for mission-critical flow control and instrumentation solutions for oil and gas, water and wastewater, power, chemical process and industrial applications. We offer global frontline support backed by dedicated in-house experts.

Our service solutions increase plant efficiency and reduce maintenance costs, while workshop services return equipment to as-new condition. Our experience and understanding of the flow control industry means we have extensive insight and ideas of what we can do to provide significant value to our customers and their operations.

Rotork Site Services is comprised of two main areas; Lifetime Management and Site Services. Lifetime Management is the suite of services within Rotork Site Services which help you manage the risk associated with aging assets and includes our Reliability Services offering. Site Services comprises essential actuator service, repair, maintenance and upgrades.

Rotork has specialist expertise, insight and experience in flow control.

We provide insight into how we can deliver value to our customers.

Our service solutions increase plant efficiency and reduce maintenance costs.



Site Services

Lifetime Management

The services available within Lifetime Management offer a complete solution to managing the risks associated with the life cycle of your equipment and their obsolescence (which compromise reliable performance and valuable uptime).

The aim of Lifetime Management is to provide you with constant support and minimum- to- no disruption to your production flow. It is a customisable service offering designed to seamlessly maintain and improve your assets. We manage the inherent risks associated with advances in technology, component obsolescence and ageing equipment for you. We are committed to helping customers maximise the continuous, fault-free operation and working life of their actuators. Supporting the continuous and reliable operation of your plant allows for improved performance and increases in valuable uptime.

Lifetime Management covers:

- Reliability Services
 - Health Check
 - Planned Maintenance
 - Enhanced Warranty
 - Predictive Maintenance
- Upgrade Services (retrofit)
- Planned Shutdown Support (service or run time)
- Life Cycle Services (based on years in service or run time)
- Overhauls/Refurbishment
- Customised Spares Programme
- Training
- Consultancy



Site Services

Rotork's Site Services comprises the essential on-site actuator service, repair, maintenance and upgrades part of our service offering, plus the commissioning of new actuators and applications. It includes off-site work completed at a Rotork Support Centre including recertification, automation, testing and product selection.

Our decades of experience in the industrial actuation and flow control markets means that customers can rely on us to understand their problems and to deliver reliable, economic solutions. Rotork's talented and experienced engineers have an in-depth understanding of the problems that are faced in the field and they know how to fix them.

On sites where providing evidence of valid asset certification is a legal requirement, Rotork engineers can carry out the necessary OEM level inspections and provide the statutory paperwork to comply with regulations.

- Planned Shutdown Support
- Actuator Workshop Overhaul
- Field Support
- Valve Automation Services
 - On-site
 - Off-site
- Global Support



rotork®



www.rotork.com

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

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