rotork®
Controls

ROM and ROMpak Range

Quarter-turn Direct Drive
Electric Actuators

Redefining Flow Control

Contents

rotork®
Controls

Rotork is the global market leader in valve automation and flow control. Our products and services are helping organisations around the world to improve efficiency, assure safety and protect the environment.

We strive always for technical excellence, innovation and the highest quality standards in everything we do. As a result, our people and products remain at the forefront of flow control technology.

Uncompromising reliability is a feature of our entire product range, from our flagship electric actuator range through to our pneumatic, hydraulic and electro-hydraulic actuators, as well as instruments, gear boxes and valve accessories.

Rotork is committed to providing first class support to each client throughout the whole life of their plant, from initial site surveys to installation, maintenance, audits and repair. From our network of national and international offices, our engineers work around the clock to maintain our position of trust.

Rotork. Redefining flow control.

Product Overview

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

With over fifty years of experience of long term installation in all environments we have evolved a design of uncompromising reliability. With the addition of the ROM and ROMpak range, Rotork is complementing its offering of quarter-turn actuators with simple specification for small valves.

Rotork ROM and ROMpak Range Actuators:

- Small
- Compact
- Lightweight
- Efficient yet simple gearing
- On-off
- Single-phase, three-phase and DC versions
- Local control
- Phase rotation correction*

** ROMpak only.*

The ROM and ROMpak Range

The 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 self-locking as standard, local visual indicators and manual override options together with a wide range of voltages.

Features:

	ROM	ROMpak
Enclosure	IP68 (Nema 4, 4x) Waterproof - Dustproof	IP68 (Nema 4, 4x) 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. F insulation class for ROM-1 to ROM-6 & ROM-A

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 ROM-1 & ROM-A

Gear Train

- High alloy steel gear trains provide self-locking function to avoid valve back drive.
- Gear trains are factory lubricated with a wide temperature rated lubricant

Mechanical Stops

- Externally adjustable mechanical stops are provided on ROM-2, 3, 4, 5 & 6 actuators

Working Conditions

- Ambient temperature: -30 to +70 °C†
- Humidity: 30% to 95%

Various Options

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

** Excluding ROM-1 & ROM-A.*
† Excluding 12/24 VDC.

Certificates

- ISO 9001, CE

The ROMpak

The ROM range of actuators is now enhanced with the addition of the ROMpak actuator. The ROMpak has a self contained control package with 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 (7m-72hr)
- 12/24 VDC, 110/220 VAC single-phase and 220/380/440 VAC three-phase*, 50 Hz and 60 Hz
- Position indication via local mechanical indicator and LED's
- -30 to +70 °C† operation

** Excluding ROM-1 & ROM-A.*
† Excluding 12/24 VDC.

Various Options:

- Bus communications including: Pakscan, Profibus®, Modbus and Foundation Fieldbus®.
- CPT & Folomatic

Operating Voltages:

ROM

	12 VDC	24 VDC	12 VAC	24 VAC	110 V/1	220 V/1	220 V/3	380 V/3	440 V/3
ROM-A	✔	✔	✔	✔	✔	✔	✗	✗	✗
ROM-1	✔	✔	✔	✔	✔	✔	✗	✗	✗
ROM-2,3	✔	✔	✔	✔	✔	✔	✔	✔	✔
ROM-4,5&6	✔	✔	✔	✔	✔	✔	✔	✔	✔

ROMpak

	12 VDC	24 VDC	12 VAC	24 VAC	110 V/1	220 V/1	220 V/3	380 V/3	440 V/3
ROMpak-A	✔	✔	✗	✗	✔	✔	✗	✗	✗
ROMpak-1	✔	✔	✗	✗	✔	✔	✗	✗	✗
ROMpak-2,3	✔	✔	✗	✗	✔	✔	✔	✔	✔
ROMpak-4,5&6	✔	✔	✗	✗	✔	✔	✔	✔	✔

Mechanical and Electrical Data

Mechanical Data ROM and ROMpak

Model	ROM Weight (kg)	ROMpak Weight (kg)	Manual override	Output Drive (mm)	Torque Nm/lbf.ft	Mounting base designation to ISO5211 imperial
ROM-A	2.8	4.7	Level	17/14	50/37	F05/F07
ROM-1	2	4	Level	14/11/9	35/26	F03/F05
ROM-2	10.9	13.1	Handwheel	22/17	90/67	F07
ROM-3	10.9	13.1	Handwheel	22/17	150/110	F07
ROM-4	25.1	27.1	Handwheel	36/35	400/295	F10
ROM-5	25.1	27.1	Handwheel	36/35	500/370	F10
ROM-6	25.1	27.1	Handwheel	36/35	650/480	F10

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

Electrical Performance Data

12V/24V – ROM and ROMpak*

Model No.	Torque (Nm)	Speed (sec/90°)	Motor Power (W)	Motor Speed (rpm) 12 V	Motor Speed (rpm) 24 V	12 VDC/VAC CURRENT (A) Run	12 VDC/VAC CURRENT (A) Lock	24 VDC/VAC CURRENT (A) Run	24 VDC/VAC CURRENT (A) Lock
ROM-A	50	30	3.75	1,700	1,700	1.2	2.4	0.6	1.2
ROM-1	35	20	3.75	1,700	1,700	1.2	2.4	0.6	1.2
ROM-2	90	17	43	1,360	1,360	2.5	15	1.1	9
ROM-3	150	28	43	1,360	1,360	2.5	15	1.1	9
ROM-4	400	23	130	1,250	1,250	11	40	5.5	20
ROM-5	500	30	130	1,250	1,250	11	40	5.5	20
ROM-6	650	38	130	1,250	1,250	11	40	5.5	20

***12/24 VAC not available for ROMpak.**

Single-Phase – ROM and ROMpak

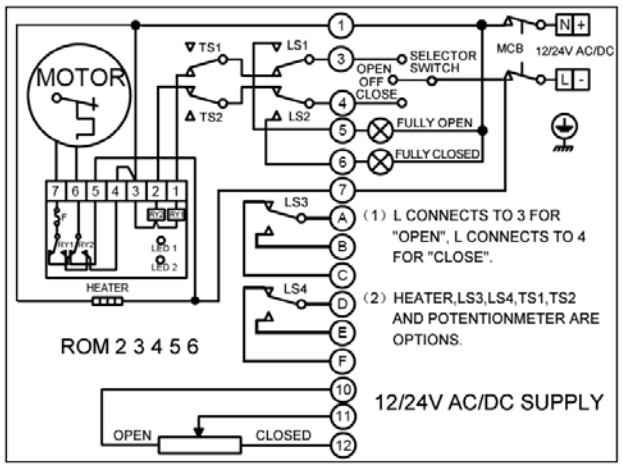
Model No.	Torque (Nm)	Speed (sec/90°) 50 Hz	Speed (sec/90°) 60 Hz	Motor Power (W)	Motor Speed (rpm) 50 Hz	Motor Speed (rpm) 60 Hz	110 V CURRENT (A) Run	110 V CURRENT (A) Lock	220 V CURRENT (A) Run	220 V CURRENT (A) Lock
ROM-A	50	22	19	5	2,300	2,710	0.22	0.25	0.15	0.19
ROM-1	35	15	13	5	2,300	2,710	0.22	0.25	0.15	0.19
ROM-2	90	17	15	43	1,360	1,600	0.85	1.6	0.35	0.85
ROM-3	150	28	24	43	1,360	1,600	0.85	1.6	0.35	0.85
ROM-4	400	20	17	150	1,430	1,690	1.9	6	0.5	2.22
ROM-5	500	26	22	150	1,430	1,690	1.9	6	0.5	2.22
ROM-6	650	33	28	150	1,430	1,690	1.9	6	0.5	2.22

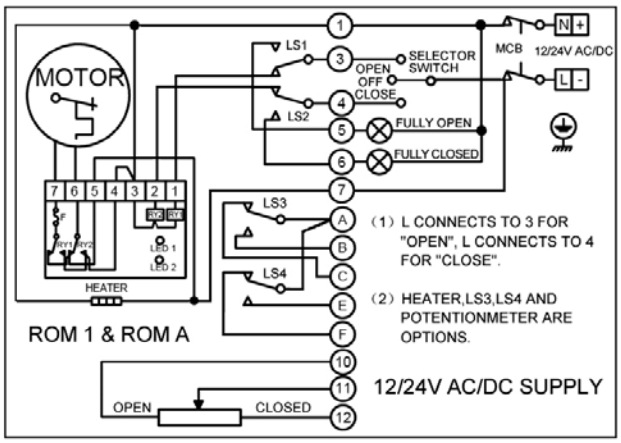
Three-Phase – ROM and ROMpak

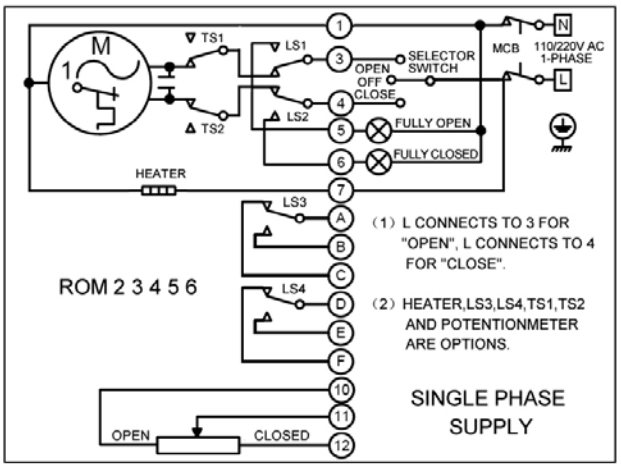
Model No.	Torque (Nm)	Speed (sec/90°) 50 Hz	Speed (sec/90°) 60 Hz	Motor Power (W)	Motor Speed (rpm) 50 Hz	Motor Speed (rpm) 60 Hz	220 V Current Run	220 V Current Lock	380 V CURRENT (A) Run	380 V CURRENT (A) Lock	440 V CURRENT (A) Run	440 V CURRENT (A) Lock
ROM-2	90	16	14	46	1,460	1,720	1	1.9	0.35	0.83	0.35	0.73
ROM-3	150	26	22	46	1,460	1,720	1	1.9	0.35	0.83	0.35	0.73
ROM-4	400	20	17	150	1,430	1,690	1.5	3.5	0.5	2	0.45	1.77
ROM-5	500	26	22	150	1,430	1,690	1.5	3.5	0.5	2	0.45	1.77
ROM-6	650	33	28	150	1,430	1,690	1.5	3.5	0.5	2	0.45	1.77

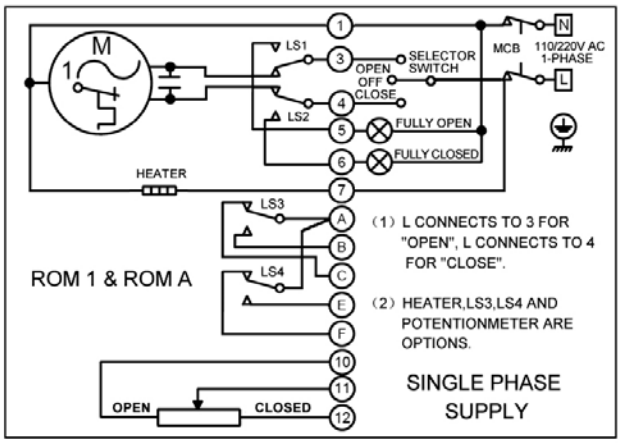
Circuit Diagram and Optional Extras

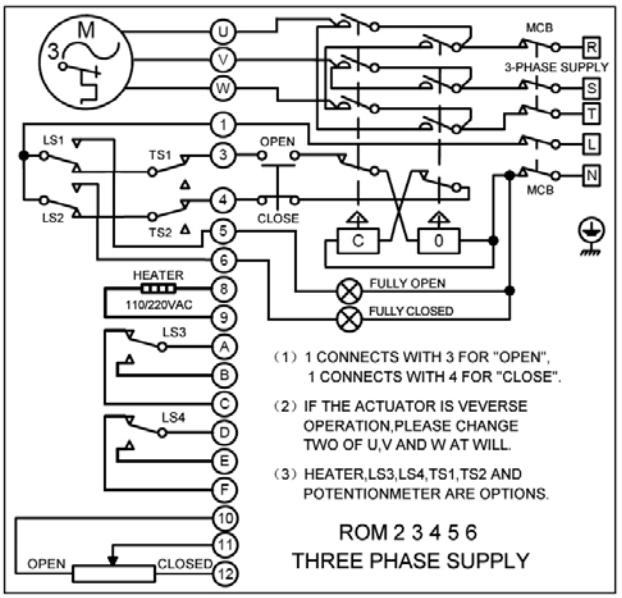
ROM Wiring Diagram











Optional Extras:

Torque Switches

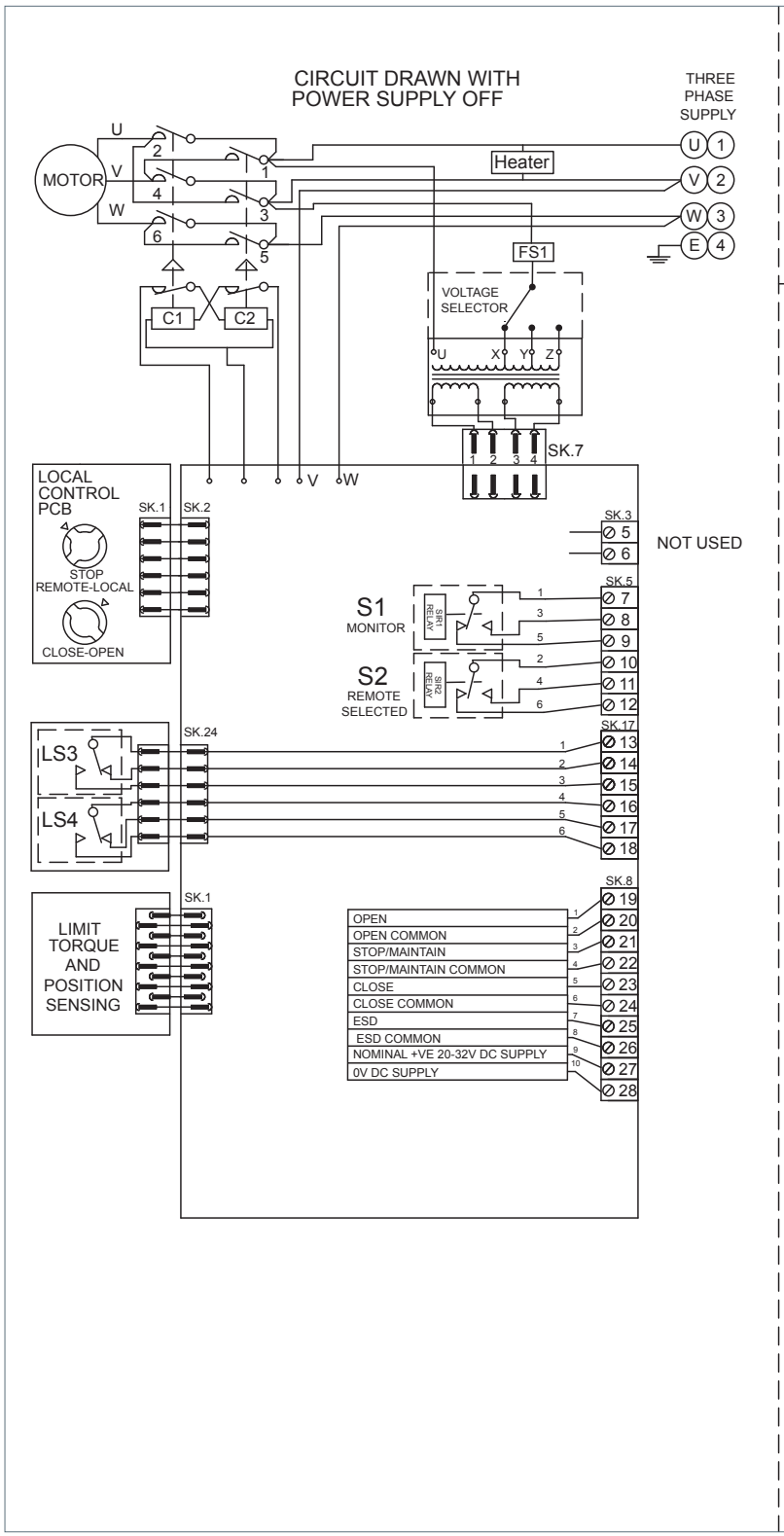
Cam activated torque switches to provide torque overload protection ROM-2, 3, 4, 5 & 6.

Anti-condensation Heater

This heater is available for all sizes.

Circuit Diagram and Optional Extras

ROMpak Three-Phase Wiring Diagram



TRANSFORMER TAPPING

TAP	NOM 50/60HZ	50HZ	60HZ
X	220/230	176-242	198-259
Y	380/400	304-418	342-446
Z	440/460	352-484	396-517

FS1 - See ROMPAK E672E Installation and Maintenance Manual

NOTE

FOR TYPICAL REMOTE CONTROL INDICATING,MONITORING AND ALARM CIRCUITS SEE PUBLICATION E621E

MAX EXTERNAL LOAD ON S1/S2 RELAYS TO BE 5A. MAX VOLTAGE 120V AC/DC

MAX EXTERNAL LOAD ON TERMINAL 27 & 28 TO BE 3W

CONTROL SIGNAL THRESHOLD VOLTAGES:
MAX 60V DC
TO BE MINIMUM 'ON' 14V DC AT 1mA
MAXIMUM 'OFF'=3V

MINIMUM CONTROL SIGNAL DURATION TO BE 300mS.

CURRENT DRAWN FROM EACH REMOTE CONTROL SIGNAL IS 5mA ON 24V DC

LS3 / LS4
MAXIMUM CURRENT 3A MAXIMUM VOLTAGE 120V AC/DC

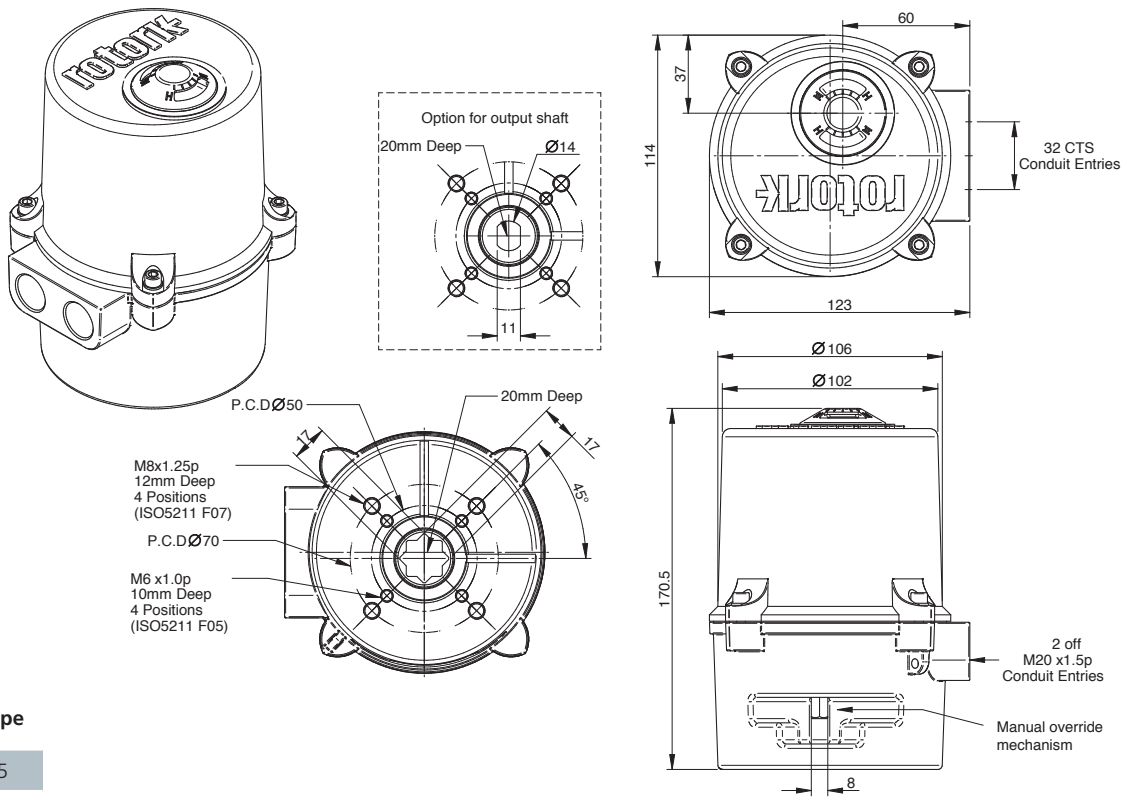
ACTUATOR CONFIGURATION VIA DIL SWITCH SW2

ROM1 DOES NOT SUPPORT TORQUE LIMIT

REFER TO INSTALLATION INSTRUCTIONS FOR DIL SWITCH SELECTION

Dimensional Data

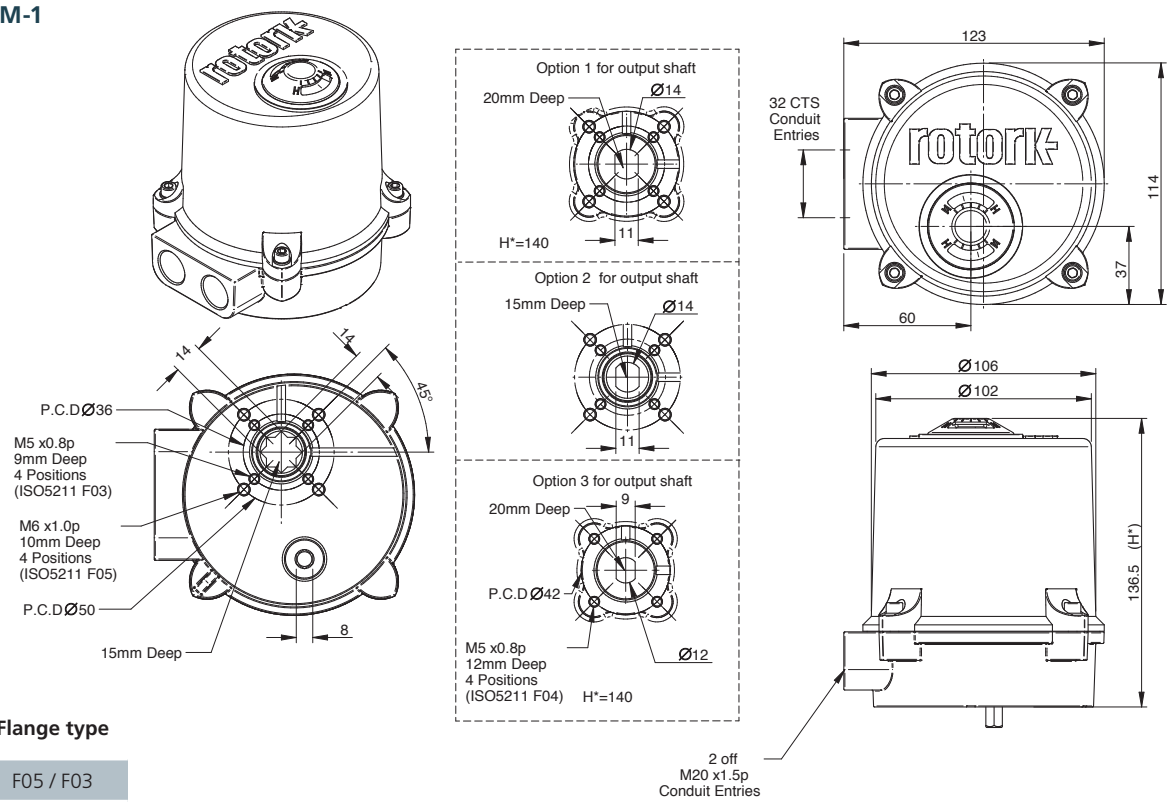
ROM-A



Flange type

F07 / F05

ROM-1



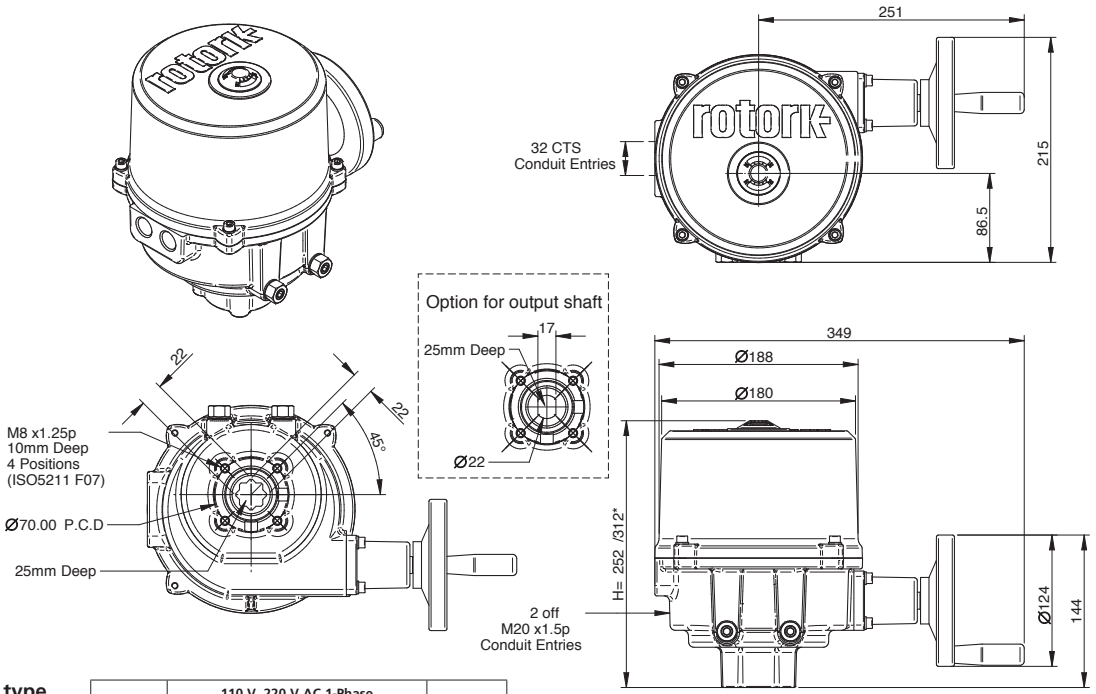
Flange type

F05 / F03

rotork Controls

Dimensional Data

ROM-2/3

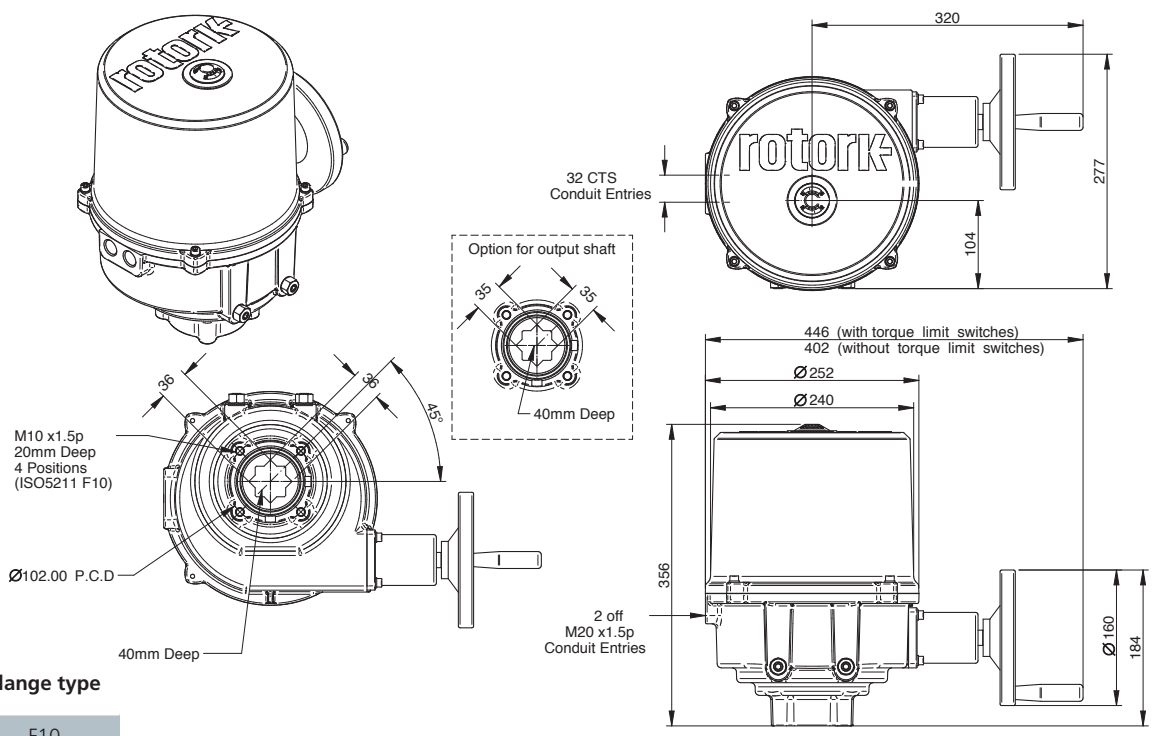


Flange type

F07

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

ROM-4/5/6

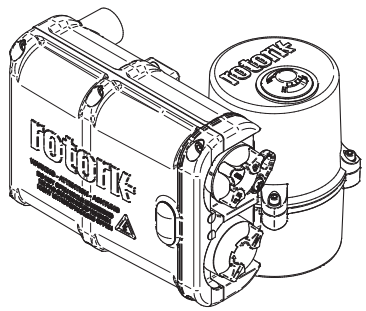


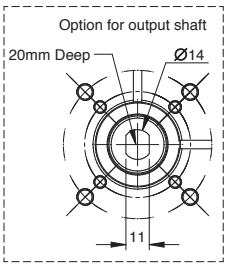
Flange type

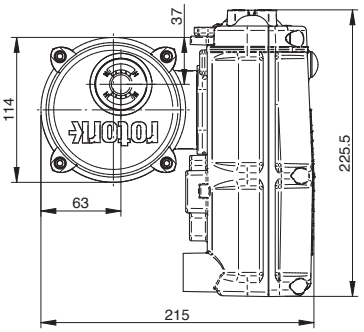
F10

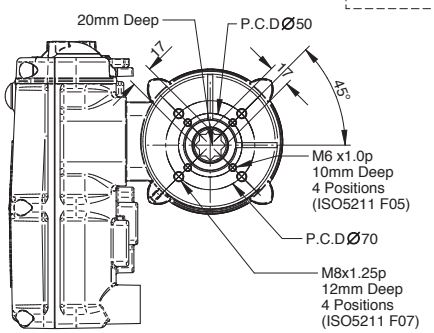
Dimensional Data

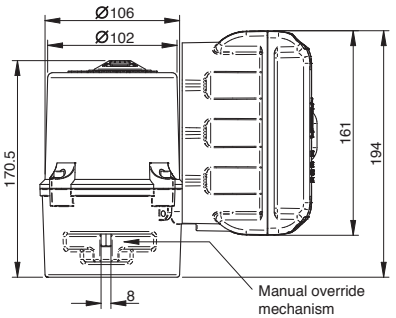
ROMpak-A







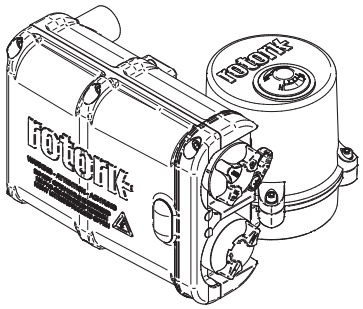


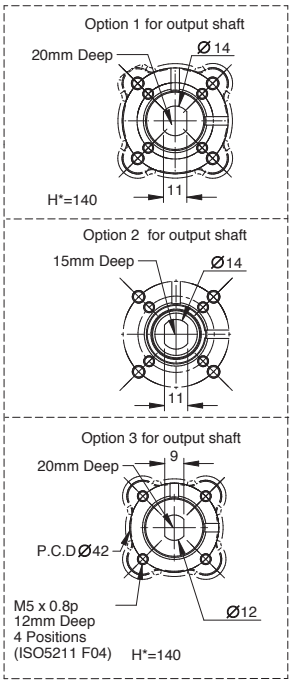


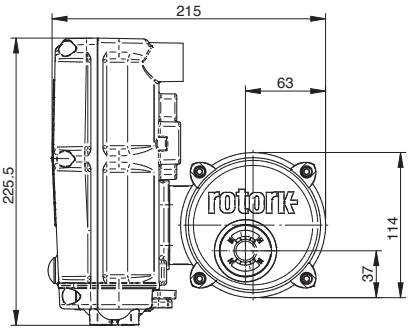
Flange type

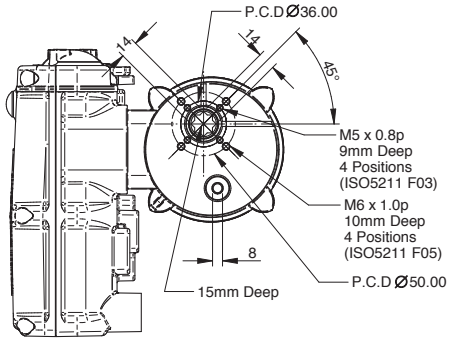
F07 / F05

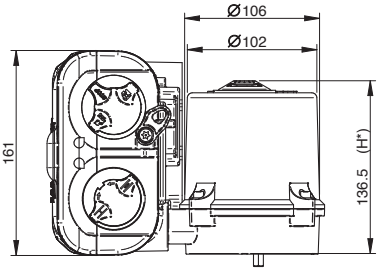
ROMpak-1









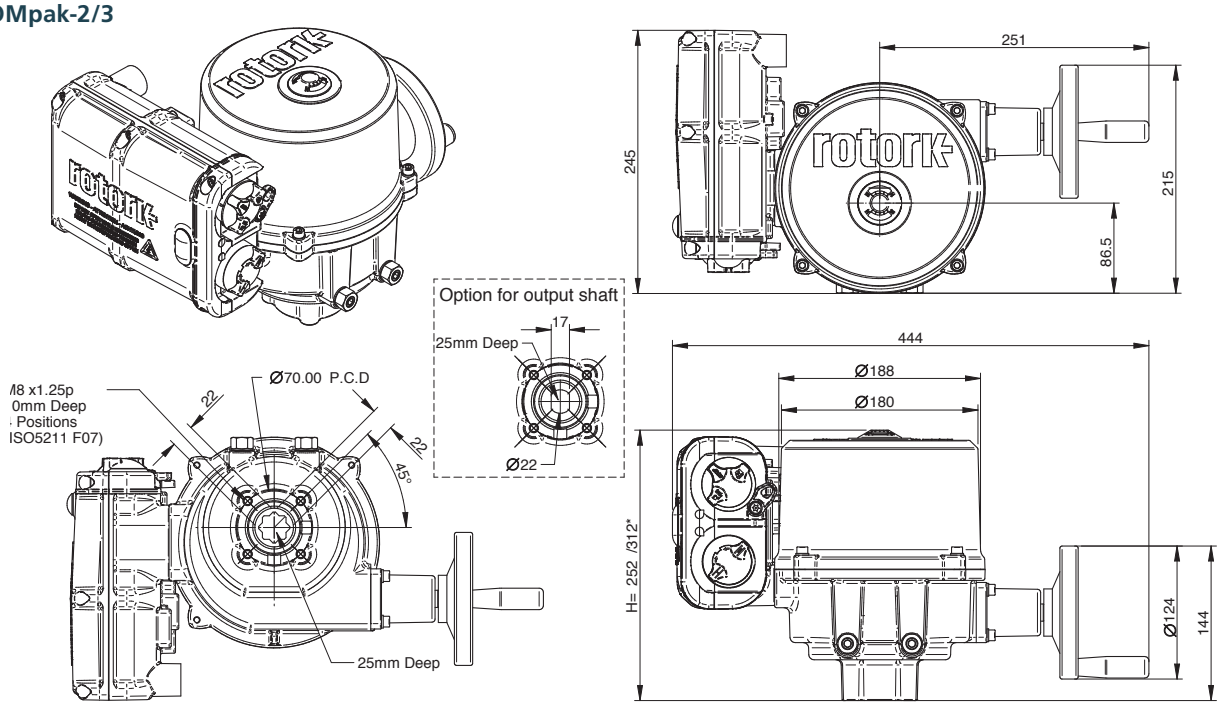


Flange type

F05 / F03

Dimensional Data

ROMpak-2/3

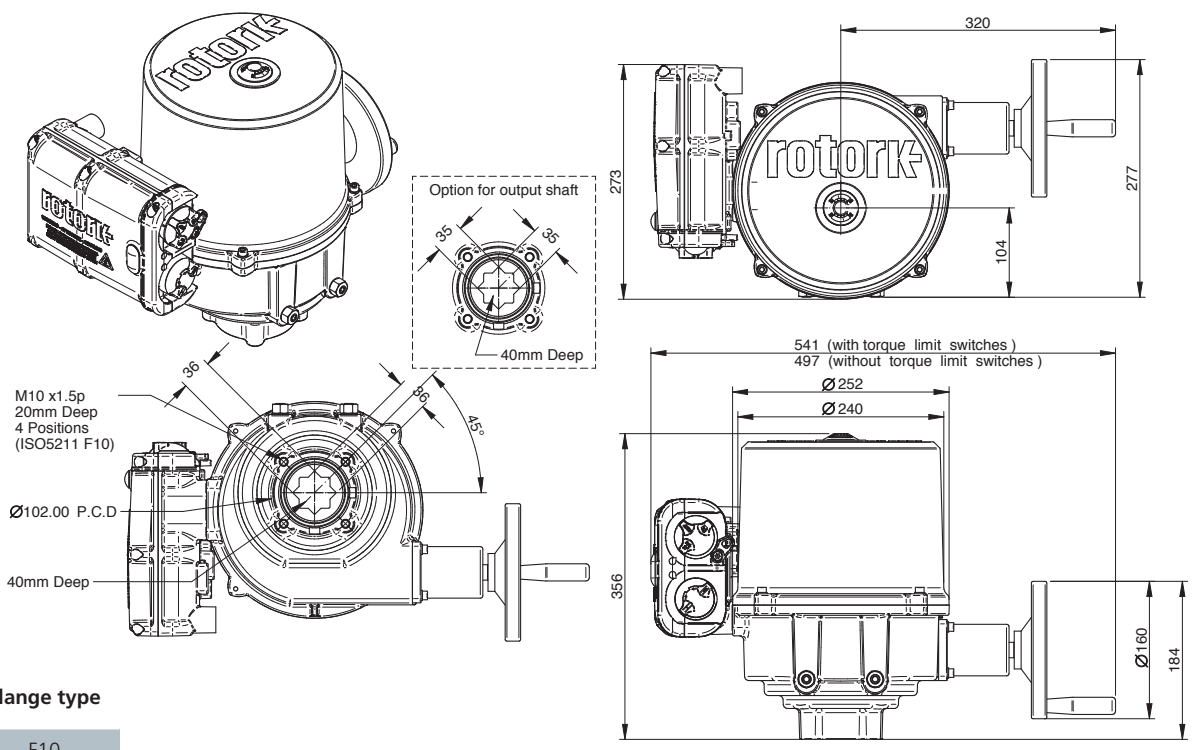


Flange type

F07

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

ROMpak-4/5/6



Flange type

F10

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