

# Electric Actuator QRT Series For Regulating duty, Three Phase Supply.

DATA SHEET  
QRT-XXX

## EXCLUSIVE FEATURES

- Enclosure : Waterproof/Dustproof Aluminium Alloy enclosure (Epoxy coated)
- Protection Class : All actuators qualify to IP-65 requirements; also to Waterproof and Dustproof enclosures.
- Housing : Aluminium cast housing which houses lifetime lubricated gear train.
- Electric Motor : Class 'F' Insulated, extended duty cycle induction motor with built-in Thermal protection 120°C prevents motor burning when over heated.
- Mechanical Position : All models have continuous position indicator fitted on the top of actuator cover.
- Manual Override : All are Clutchless design, can be rotated on power failure. Full protected for Personal safety purpose when electric supply ceases, valve can be opened or Closed by manual operation; on restoring electricity, manual rotation stops.
- Gear Train : High Alloy Steel Planetary gear train, self locking function, to avoid valve back lash, at factory level. Gear train are sufficiently lubricated with high temperature sustainability.
- Control : The actuator can be fitted with Two different types of Control Cards:
  - 1) MA0532 : Accepting only 4 to 20mA signal or 2 to 10VDC from PID Control, which will position the actuator to required level with help of one Potentiometer mounted on the actuator.
  - 2) MA0533 : Accepting 4 to 20mA or 2 to 10VDC signal and position the actuator as per the signal. At the same time, with additional potentiometer provided, the card can give output signal of 4 to 20mA or 2 to 10VDC – (PTR).
- Alternately : This output signal can be used for indicating positioning the valve with the help of 3.5 Digit Panel Meter (DPM), which is supplied with power supply unit. Separate electrical supply of 230V 50 Hz is required to be provided (PTI indicator). In addition, signal of 4 to 20mA can be obtained by connecting through separate terminal, mostly for feeding to PLC.



Torque Switches : All models are fitted with 2-Nos. Torque Switches to cut off electric supply In case of over torque.

### VARIOUS OPTIONS AVAILABLE:

- 3 Phase 360/440V DC 50 Hz.
- Anti condensation Space Heater with thermostat.
- Additional Limit Switches – 2-Nos.
- Auto Manual Switch for local or remote control available CW or CCW operation.

Application : For Ball Valves, Butterfly Valves, Plug Valves, anywhere where 90° turn Rotation is required.

Note : Client has to know, torque rating of their valves. For calculating Actuators. Torque, following general guidelines are observed:

- a) Butterfly Valves : Torque +20% for water application
- b) Butterfly Valves : Torque +35 to 40% for Air and +50% for powder or sludge, etc.
- c) Ball Valves : Torque +20%
- d) Plug Valve : Torque +50%

For others, please refer to AVCON.

While using Electric Actuator on Ball, Butterfly or Plug Valves -Torque switches which are provided by default, will help to avoid burn out of motor, in case the actuator gets stuck.

**Complete ready Actuator just provide 3-Phase 360 or 440V 50 Hz AC supply and earthing connection and signal of 4 to 20mA or 2 to 10V DC.**

This leaflet is general indication of Catalogue nos. Detailed Instruction Manual is supplied when actuator ordered out.

## SPECIFICATION TABLE

Actuator Model Number	Torque	Speed - 90°Turn	Manual Override Handwheel	Mounting Flange ISO 5211	Weight (Approx.)	Power	Electric Supply
	(NM)	Secs.			Kgs	Watts	V AC
QRT-100	100	22	YES	F05-F07	22	40	360/440
QRT-150	150	15	YES	F05-F07	22	40	360/440
QRT-250	250	20	YES	F05-F07	22	60	360/440
QRT-400	400	25	YES	F07-F10	25	60	360/440
QRT-500	500	30	YES	F07-F10	25	60	360/440
QRT-650	650	31	YES	F07-F10	25	90	360/440