

ELECTRIC QUARTER TURN ACTUATOR 'ITQ' SERIES INSTRUCTION AND MAINTENANCE MANUAL



ITQ-0020

Doc No: ITQ-M0101-0020

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**ITQ ELECTRIC QUARTER TURN ACTUATOR ITQ0020
Installation and operating manual (ITQ-M0101/0020)**

i-tork
CONTROLS Ltd.
<http://www.i-tork.com>



1. Precautions before using actuator

It is recommended that Users must check the matters listed below very carefully.

- 1) Visual Check : Painting, wiring diagram etc
- 2) Specification: Users must check test report /name plate and wiring diagram to be sure actuator is suitable for the required specification of application
- 3) Check if electrical specification is correct (wiring diagram inside of the actuator, name plate).
- 4) Check if the electrical power is correct.
- 5) Check if instruction manual, test report (Warranty paper) and electrical wiring diagram are supplied.
- 6) When User disassembles or remodels ITQ0020 without the manufacturer's consent, I-tork won't guarantee.

If there is any discrepancy, please ask local distributor of I-Tork controls Ltd to solve or replace any discrepancy immediately.

2. General Specification



- A. MAIN POWER
 - i. AC 85~265V, 50/60Hz, FREE VOLTAGE
 - ii. AC/DC 24V
- B. Application : Less than 1" Ball Valve
- C. FLANGE : ISO F03
- D. CABLE GLAND : PG11 WITH WIRE
- E. SHAFT : SQUARE FEMALE 11 X 11mm (9 X 9mm with insert)
- F. TORQUE : 25Nm
- G. DUTY CYCLE : S2, 50%
- H. ENCLOSURE : IP66, O-RING SEALED
- I. MOTOR : DC 24V, 10W
- J. AMBIENT Temperature : -10°C ~ +65°C

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- K. HUMIDITY(R.H) : 90%
- 3. Set-up
 - A. CW (Clockwise) : Close direction
CCW (Counter-Clockwise) : Open direction
 - B. After setting the valve at the full close position, set up the close limit switch.
 - C. After setting the valve where the User wants as a full open position, set up the open limit switch.
- 4. Wiring
 - A. I-Tork supplies 20 cm wires through PG11" cable gland for User to wire.
 - B. Before wiring, make sure to wire according to wiring diagram supplied inside of the box.
 - C. After wiring, make sure to isolate the wires User doesn't use.
 - D. I-Tork isn't responsible when User uses the goods in improper way.
 - E. Please make sure to use one actuator with one signal wire.
- 5. Advantage
 - A. Motor drive components using semi conductor can be used semi-permanently
 - B. It's very safe because over current protection circuit is built inside of the actuator.
 - C. Because MCC is installed on the circuit board, Panel for open and close is not required.

ITQ ELECTRIC QUARTER TURN ACTUATOR

6. ITQ0020N

A. General Specification

i. MAIN POWER

1. AC 85~265V, 50/60Hz, FREE VOLTAGE
2. AC/DC 24V

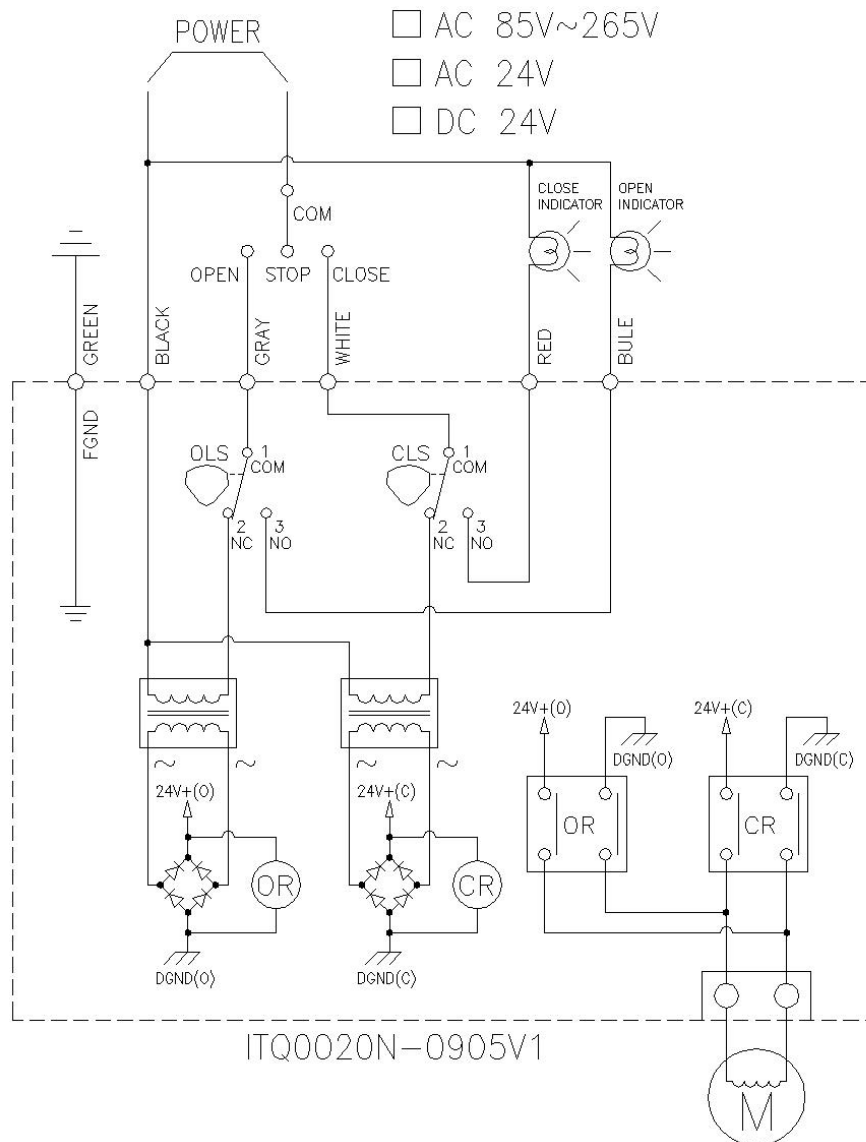
ii. CONTROL POWER : EXTERNAL POWER (MAIN POWER)

iii. Easy wiring

iv. User can check the status of the actuator very easily with the status checking wiring. (Full close, Full open)

v. But, Control power (Lamp etc) should be the same as the main power.

B. ELECTRIC WIRING



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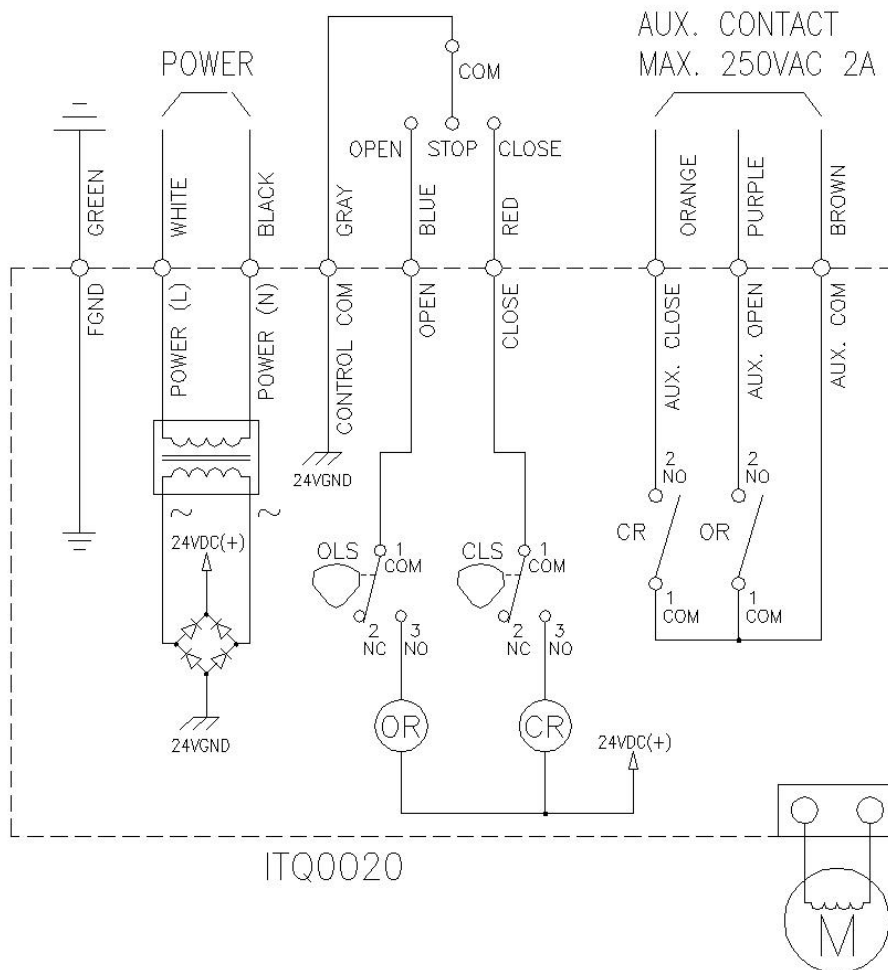
7. ITQ0020-ALS

A. General Specification

- i. MAIN POWER
 1. AC 85~265V, 50/60Hz, FREE VOLTAGE
 2. AC/DC 24V
- ii. CONTROL POWER : INTERNAL POWER (DC 24V)
- iii. Auxiliary close and open switches are available
- iv. User can use Panel lamps or PLC control signal through Auxiliary Switches.

B. ELECTRIC WIRING

- AC 85V~265V DC 24V
 WHITE (+)
 BLACK (-)
- AC 24V



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8. Maintenance
 - A. Free of charge
 - i. In case that the purchase goods are not the same as the delivered goods.
 - ii. The malfunction is caused by manufacturing error.
 - iii. The warranty period is 1 year after delivered from the factory.
 - B. Pay for the repair
 - i. The malfunction is caused by User who doesn't follow the specification.
 - ii. The malfunction is caused by User negligence or improper use.
 - iii. The User has modified the wiring diagram by themselves.
 - iv. Sealing problem caused by User that water or humidity entered through the cable entries.
 - v. Actuator was delivered from manufacturer more than 1 year ago.
 - C. Should you have any questions, please ask local distributors of I-Tork Controls Ltd to solve or replace any discrepancy immediately.