



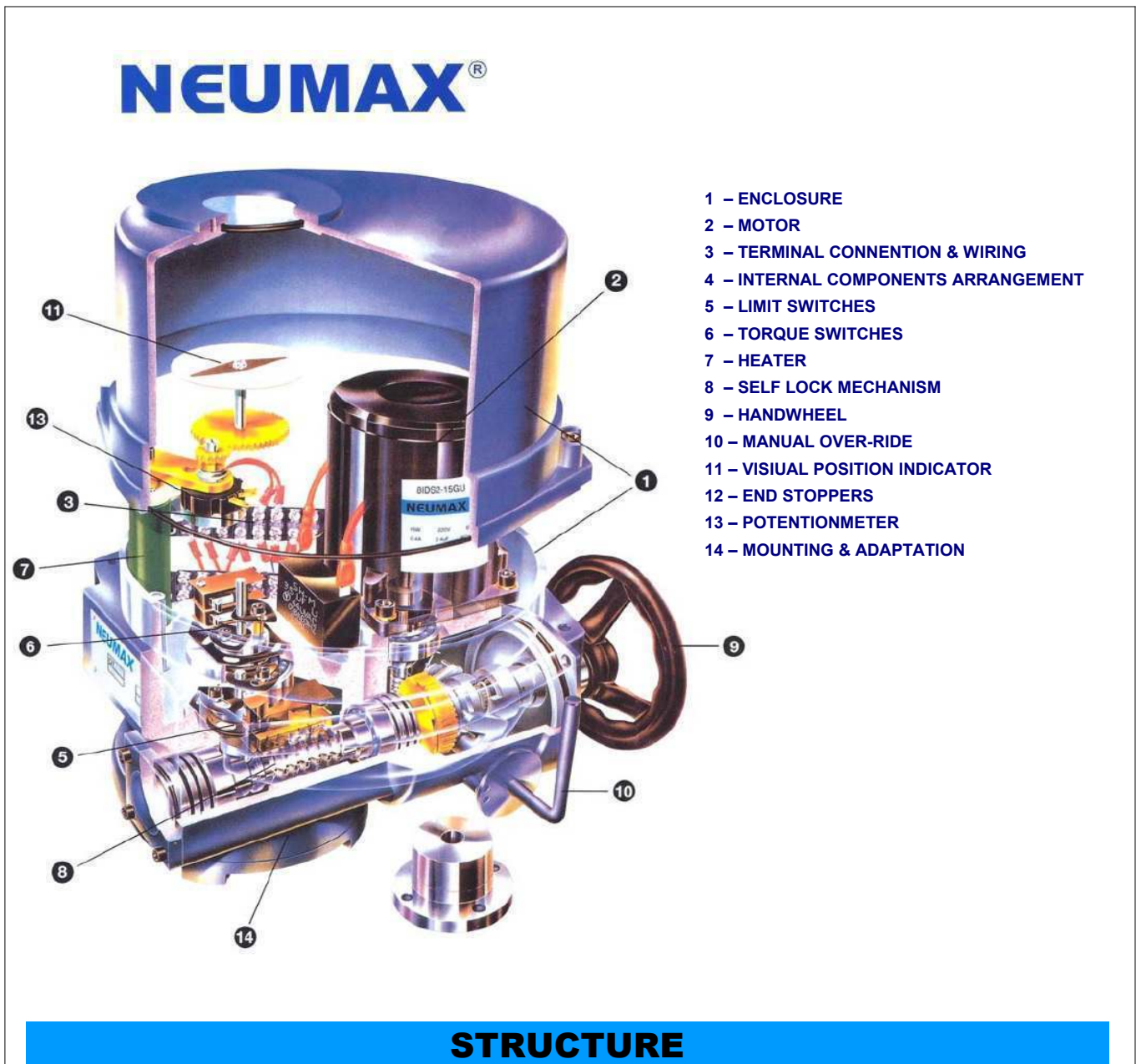
**NEUMAX<sup>®</sup>**

**QT - SERIES**

**QUARTURN ELECTRIC ACTUATOR**

QT' series electric actuators are designed & engineered for robust, reliable and for high performance duty onto quarter turn valves. The unique reliable motor module , adjustable cam plate limit switch, self locking mechanism, precision gearing system and ball bearings, the auto declutching mechanism, light force load on the hand-wheel, the adaptor drive bushing and bottom ISO 5211 mounting dimension, are added advantages against others in the field of valve automation. CE approved. FM & UL pending.

## "NEUMAX" QT Series Quarter Turn Electric Actuator



## **1. ENCLOSURE**

Standard enclosure to water jet proof & water tight proof IP 67, NEMA 4 & 6.

## **2. MOTOR**

Squirrel cage motor is of encapsulated type, on high stall torque and low inherent force for seating & unseating of valves. All motors are integrated with build-in thermal protection.

## **3. TERMINAL CONNECTION & WIRING**

Terminal connections are of "WAGO" push on type, making wiring connection very easy & without fuss. Electrical wiring circuit is standardized for single & three phase voltage. Addition termination is available on request.

## **4. INTERNAL COMPONENTS ARRANGEMENT**

Internal mechanical and electrical components are designed in modular mounting arrangement, and can be easily removed for maintenance purposes. Addition optional accessories are also possible.

## **5. LIMIT SWITCHES**

A pair of limit switches are activated by means of simple, reliable & adjustable cam plates, mounted directly onto, and driven by center column. The unique cam plate design does not allow over travel of limit switches.

## **6. TORQUE SWITCHES**

Electric actuators on 100 Nm and above, are installed with torque switches for over-load protection

## **7. HEATER**

For prevention of condensation due to weather & temperature changes, and also keeps internal components clean & dry, a 20 watt space heater is provided inside all the electric actuators.

## **8. SELF LOCKING MECHANISM**

Because of the worm gear design system, all the electric actuators are self locking.

## **9. HANDWHEEL**

Correct size of hand-wheel on the electric actuator ensure adequate strength for safe and efficient emergency operation.

## **10. MANUAL OVER-RIDE**

Engage by pulling the lever & turning the handwheel. Lever is auto declutch when power supply is switched on, and hand-wheel does not turn as extra safety feature.

## **11. VISUAL POSITION INDICATOR**

The visual position indicator is directly mounted onto the center drive column to provide the visual position of the valve.

## **12. END STOPPERS**

1 each for open & close position (adjustable), are for over travel protection.

## **13. POTENTIOMETER - optional**

Is available on request, is to provide & transmit remote indication of valve position.

## **14. MOUNTING & ADAPTATION**

Bottom flange mounting dimension conform to ISO 5211. A adaptor drive bushing is provided for every electric actuator, is removable and for machining to suite valve stem size.

# **FEATURE**

## PERFORMANCE

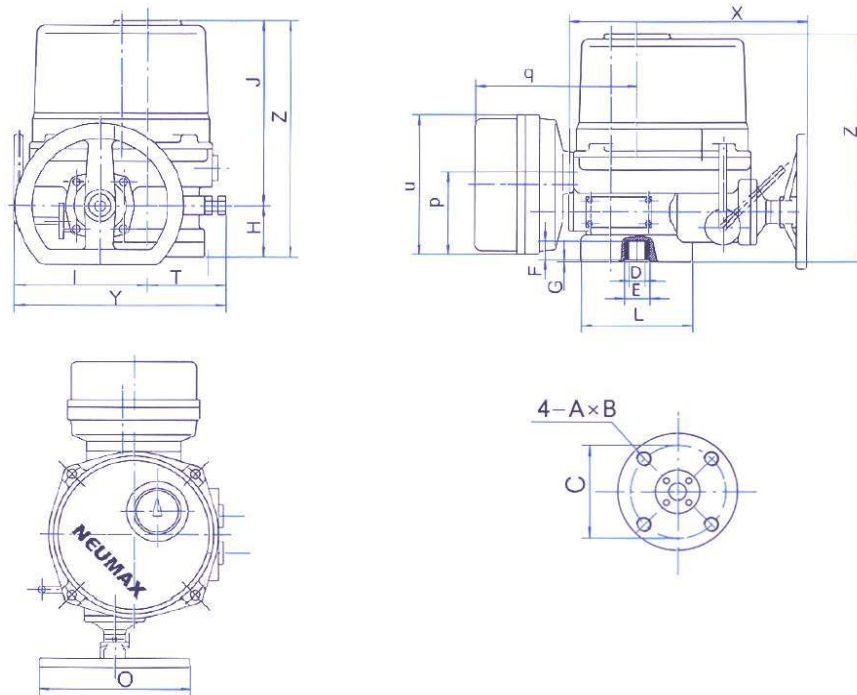
TYPE	Max. Outout Torque	Operating Time 60/50 Hz.	Max. Stem Dia.	Motor 30 Min. Class F	Rated Current (mA)	Capacitor	Number Of Handle Turn	Weight
	Kg.m	90 Deg.	mm	W	220V/Φ1	μF		Kg
QT04-0.9	4	14/17	14	25	400	4	8.5	12
QT06-0.9	6	14/17	22	25	400	4	8.5	12
QT09-0.9	9	14/17	22	40	900	6	8.5	12
QT15-0.7	15	17/20	22	40	900	6	10	15
QT19-0.7	19	17/20	22	40	1100	8	10	15
QT28-0.6	28	22/26	32	40	900	8	12.75	20
QT38-0.6	38	22/26	32	60	1250	10	12.75	20
QT50-0.6	50	22/26	32	90	1700	16	12.75	20
QT60-0.5	60	24/29	42	120	2300	18	14.5	29
QT80-0.5	80	24/29	42	200	2700	30	14.5	29
QT100-0.5	100	24/29	42	200	2700	30	14.5	60
QT250-0.17	250	75/90	50	200	2650	30	45	60

\* Without torque switches

For quarter turn valves automation used in heating & ventilation, air-conditioning, water treatment works, power generation, petrochemical plants, oil storage facilities, chemical plants, effluent treatment works, pulp & paper mills and shipbuilding industry.

## APPLICATION





## DIMENSION

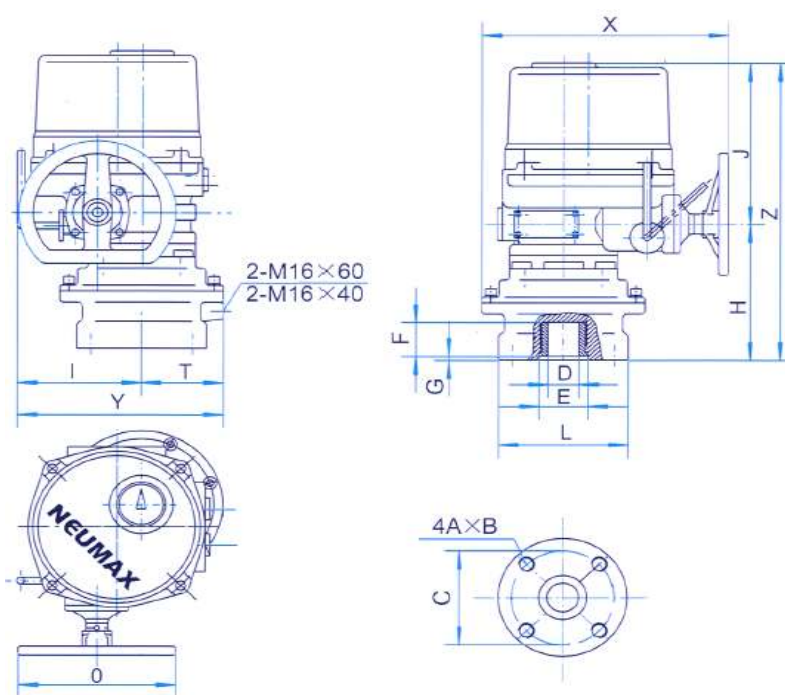
QT04,QT06,QT9,QT15,QT,19,QT28,QT38,QT50,QT60,QT80,QT100

ITEM	QT04-0.9	QT06-0.9	QT09-0.9	QT15-0.7	QT19-0.7	QT28-0.6	QT38-0.6	QT50-0.6	QT60-0.5	QT80-0.5	QT100-0.5
A	M6	M8	M8	M8 M10	M8 M10	M10 M12	M10 M12	M10 M12	M10 M12	M10 M12	M10 M12
FLANGE ISO5211	F05	F05	F07	F07 F10	F07 F10	F10 F12	F10 F12	F10 F12	F10 F12	F10 F12	F10 F12
B	12	12	12	15	15	18	18	18	18 20	18 20	18 20
C	50	50	70	70 102	70 102	102 125	102 125	102 125	102 125	102 125	102 125
D	14	14	22	22	22	32	32	32	42	42	42
E	40	55	55	57	57	75	75	75	85	85	85
F	25	35	35	35	35	42	42	42	50	50	50
G	5	5	5	5	5	1.2	1.2	1.2	1	1	1
H	60	60	60	64	64	70	70	70	78	78	78
I	133	133	133	154	154	174	174	174	191	191	191
J	196	196	196	199	199	228	228	228	264	264	264
L	102	102	102	125	125	145	145	145	175	175	175
O	200	200	200	250	250	350	350	350	350	350	350
p	72	72	72	72	72	72	72	72	72	72	72
q	166	166	166	187	187	192	192	192	209	209	209
T	75	75	75	85	85	100	100	100	115	115	115
u	170	170	170	170	170	170	170	170	170	170	170
X	241	241	241	272	272	290	290	290	331	331	331
Y	208	208	208	239	239	274	274	274	306	306	306
Z	256	256	256	263	263	298	298	298	342	342	342

## DIMENSION

QT250

ITEM	QT250-0.17
A	M20
FLANGE ISO5211	F14 F16
B	30
C	160
D	50
E	95
F	60
G	4
H	60
I	191
J	264
L	210
O	350
T	132
X	357
Y	208
Z	505



**Note :** The sizes of adjustable box of QT250 is identical to sizes of QT60~QT100.

## STANDARD SPECIFICATION

<b>Housing &amp; Cover</b>	Aluminium, Anodized
<b>Enclosure</b>	Watertight IP67, Nema4 and 6
<b>Ambient Temp</b>	-30°C to + 70°C
<b>Power Supply (60Hz/50Hz)</b>	110/220VAC, 1 Phase    380/440VAC, 3 Phase
<b>Control Power</b>	110/220VAC, 1 Phase, 60/50Hz
<b>Torque Switches</b>	2 x SPDT for QT15 and above
<b>Limit Switches</b>	2 x SPDT 15A
<b>Stall Protection</b>	Built-in Thermal Protection
<b>Travel Angle</b>	90° ± 5°
<b>Indicator</b>	Continuous Position Indicator
<b>Manual Override</b>	HAND/AUTO Declutching Mechanism
<b>Self Locking</b>	Provide by means of Worm Gearing
<b>End Stopper</b>	External Adjustable Screws
<b>Space Heater</b>	20W for Anti-Condensation
<b>Conduit Entries</b>	Two G3/4"
<b>Lubrication</b>	MoS2 Lithium Base Grease
<b>Materials</b>	Steel, Aluminium Alloy, Al Bronze
<b>External Coating</b>	Dry Powder, Epoxy-Polyester Munsell No. FJ-002

## OPTIONAL ITEM

<b>ALS</b>	Additional 2 x SPDT Auxiliary Limit Switches
<b>EXT</b>	Travel Angle 120°, 135°, 180°, 270°
<b>LCB</b>	Local Control Box (1) Local/Remote Selector Switch (2) Open/Stop/Close Selector Switch
<b>POT</b>	Potentiometer 1k Ohm
<b>CPT</b>	Current Position Transmitter Output; 4-20mA DC
<b>PCM</b>	Proportional Control Module Input signal: 4-20mA, 1-5V DC Output Signal: 4-20mA DC
<b>EXP</b>	Explosion & Water Proof Enclosure Exd II BT4 IP67