



Quarter turn (Rotary)

NTQ Series

Electric Actuator

NEWTORK KOREA

NEWTORK VALVE ELECTRIC ACTUATOR			
MODEL	NTQ-610	MOTOR	220V 0.50
TORQUE	100	POWER SUPPLY	220V 50Hz
OFF TIME	200	ENCLOSURE	IP67
SERIAL	C2000001	PRODUCTION DATE	2020
OPTION	Modularity		

CE MADE IN KOREA

THE WORLD LEADER IN ACTUATION SOLUTION

ALL ABOUT ELECTRIC ACTUATORS

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INTRODUCTION

NEWTORK KOREA was founded by engineers with more than 20 years experience in the valve industry. Over the past years, we have manufactured and supplied electric actuators, functional control devices for plant fluid management and practices ESG management based on ISO quality assurance certification.

NEWTORK KOREA has in-depth experience in retrofit and the strength to deliver on-site service that even covers products of other makers, and the expertise to advise on the national standard enactment of electric actuators.

As a leader in actuation solutions, NEWTORK KOREA's prime goal is to provide efficient and economical solutions to customers with continuous research and development, outstanding technology, and long-term expertise, ultimately helping to drive customer growth.

INDUSTRIES



Water & Sewage



Power Plant



Oil & Gas



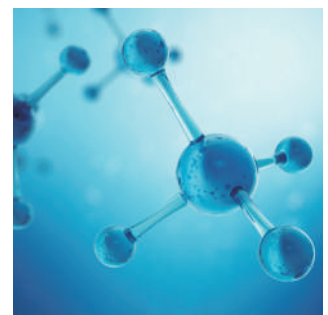
Petrochemical Plant



Dam



Shipyard



Nuclear Energy

NEWTORK COMPACT ROTARY ACTUATORS

NTQ Series



General purpose rotary electric actuator

NTQ Series is a basic type quarter-turn actuator be used to operate ball valves, butterfly valves, dampers, and etc.

It controls the opening and closing of valves to regulate fluid flow, and can be equipped with options such as a local control unit or modulating unit for both remote and on-site operation. With this compact design and cost competitiveness, it can be widely utilized in industries such as food, textiles, paper, and pharmaceuticals.

- ✓ With its compact design, it can be easily installed even in confined spaces.
- ✓ Precise position control ensures stable operation.
- ✓ The high-efficiency gear system offers low energy consumption and exceptional durability.
- ✓ Protection features (including IP ratings) make it suitable for use in various environments.
- ✓ Its intuitive operation maximizes user convenience.



NTQ SERIES TECHNICAL INFORMATION

Item	Model	Size 1			Size 2			Size 3		Size 4		Size 4 + Gearbox			
	NTQ-005	NTQ-006	NTQ-010	NTQ-016	NTQ-020	NTQ-024	NTQ-035	NTQ-050	NTQ-080	NTQ-110	NTQ-200	NTQ-250	NTQ-400	NTQ-600	
Output Torque(Nm)	50	60	100	160	200	240	350	500	800	1100	2000	2500	4000	6000	
60Hz Operating time(S)	17	21	21	23	23	23	26	26	29	29	88	88	144	144	
50Hz Operating time(S)	21	26	26	28	28	28	32	32	36	36	110	110	180	180	
Rated current(A) AC220V	0.15	0.45	0.5	0.6	0.6	0.7	0.9	1.3	1.5	2.2	1.5	2.2	1.5	2.2	
AC110V	0.25	-	1	1.45	1.5	1.6	1.8	3.2	3.9	4.2	3.9	4.2	3.9	4.2	
AC440V	0.13	-	0.26	0.3	0.35	0.39	0.42	0.86	1.2	1.6	1.2	1.6	1.2	1.6	
AC415V	0.11	-	0.24	0.28	0.32	0.37	0.4	0.81	1.15	1.55	1.15	1.55	1.15	1.55	
AC380V	0.09	-	0.22	0.25	0.3	0.35	0.38	0.8	1.1	1.5	1.1	1.5	1.1	1.5	
DC 24V	1.2	-	1.7	2	2.2	2.8	4	6.9	9.8	12.5	9.8	12.5	9.8	12.5	
Handwheel turns	-	8.5			12			13		14.5		46		73	
Weight(Kg)	2	8			14			18	19	24	26	50	52	104	106

※Consult factory for DC actuator operating time.

Standard Specification	
Enclosure	Weatherproof IP67
Main Power supply	110/220VAC/1Ph/50/60Hz, 380/440/VAC/3Ph/50/60Hz±10%, 24VDC
Control power supply	110/220VAC/1Ph/50/60Hz±10%
Duty rating(on-off)	S2 :10Min~30Min
Duty rating(modulating)	S4:30~50%, 1200start/Hour
Motor	Squirrel Cage induction motor
Limit switches	2 each for Open and Close (SPDT 250VAC/5A rating)
Torque switches	1 each for Open and Close (SPDT 250VAC/5A rating) [Except for NTQ-005, Size 1]
Stall protection/set temp.	Built in Thermal protection
Rotary angle	90°±5°[0°~100°]
Position indicator	Continuous mechanical indicator with arrow
Manual override	De-clutchable
Self locking	Provided by double worm gearing
Mechanical stopper	External and adjustable each travel end (Open and Close)
Space Heater	2W, 5W, 7W for anti-condensation
Cable entries	2 X NPT3/4"
Lubrication	EP type grease
Terminal block	Screw and Lever Push type (spring loaded) / Exept NTQ-005
Ambient temperature	-20℃~+60℃
Ambient humidity	90%RH Max (Non-Condensing)
Anti vibration	XYZ 10g, 02~34Hz, 30minutes
External coating	Epoxy polyester powder coating

NTQ SERIES OPTIONS

OPTION	Description
POT	Potentiometer (0~10K)
RIC	R/I Converter
MOD	Modulating Unit (4~20mA, 0~10v)
LCU	Local Control Unit
WT	IP68 Water tight option
BUS	Modbus

NTQ SERIES STRUCTURE

Motor

Specially designed induction motor to generate high starting torque and high efficiency equipped with thermal protector to prevent damage from over heating.

Housing

Hard anodized Aluminum casting and external epoxy powder coated against severe industrial environment.

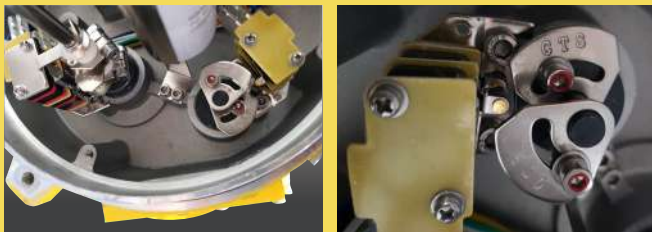


Terminal Block

Spring loaded push type terminal block for Tight wiring connection under service vibration.

Double Wormgear

With a low noise and self locking to keep position of valve unchanged against reverse torque from valve.



Limit and Torque Switch

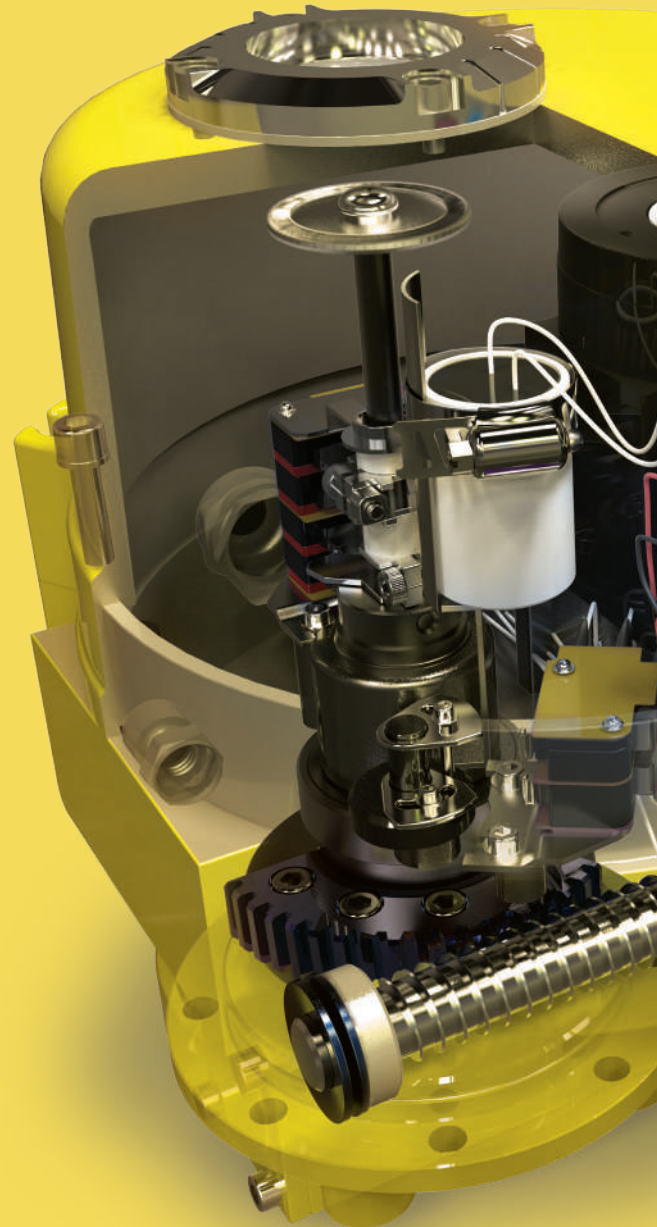
Auxiliary limit switch and torque switch to Protect actuator from damage caused by overload

Space Heater

Anti-Condensation due to the temperature difference

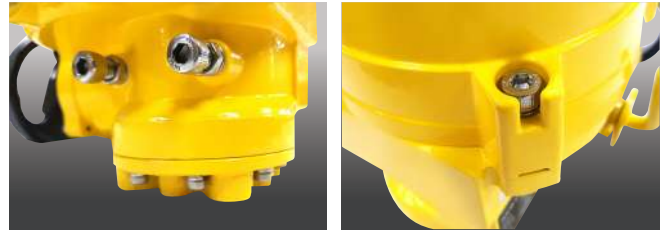
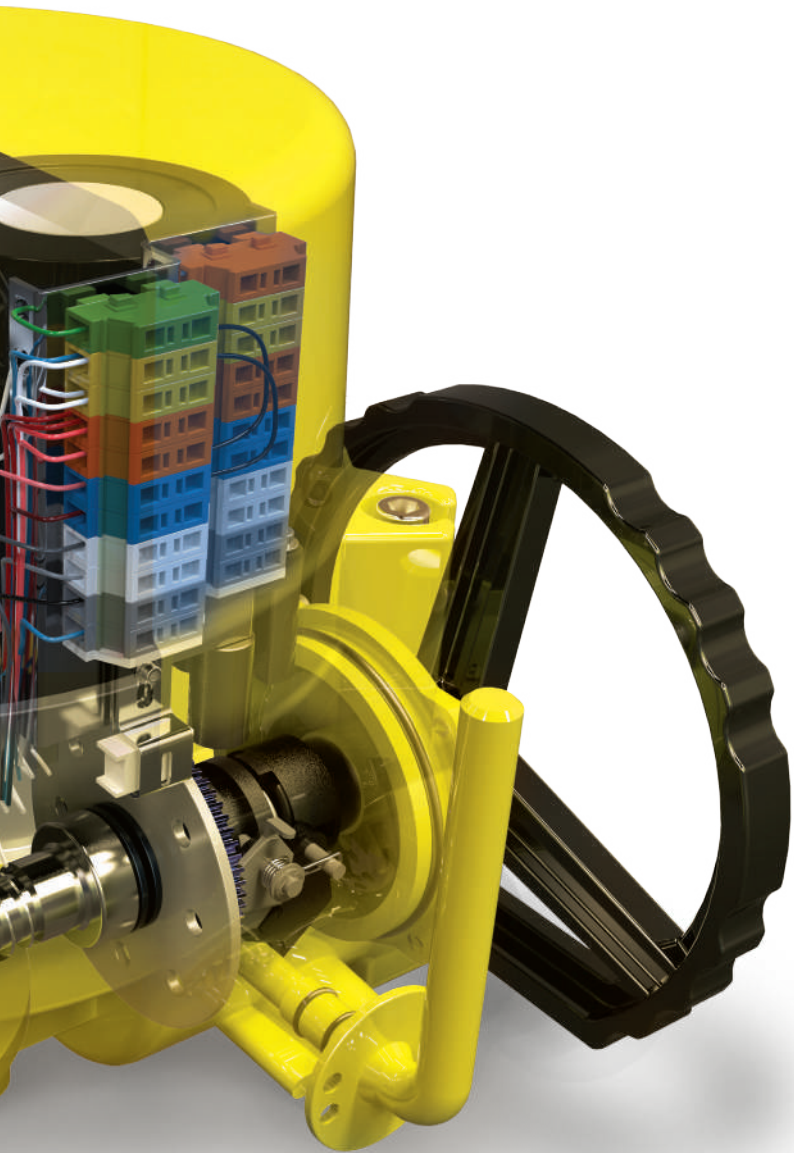
Mechanical Indicator

Continuous mechanical position indicator and window with dial. (optional dome type available).



Handwheel

Manual override handwheel for emergency manual operation.



Captive cover bolts

Designed to prevent losing it during maintenance or installation. All external bolts are stainless steel for prevent rust.

Mounting Base

Flange according to ISO5211 standard with removable bushing.

Multi-Enclosure

Weather proof standard, Watertight, Explosion proof, option.

Sealing

O-Ring in all interfaces IP67 (standard), and water tight option IP68 available.

External mechanical stopper

Mechanical stopper placed both side (Open, Close) of Actuator.

Actuator Mounting

Removable stem nut and ISO5211 mounting Base.

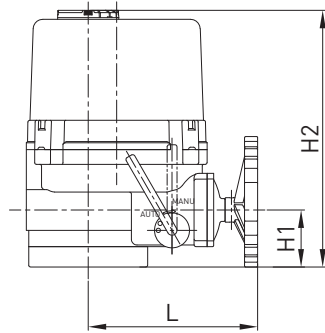
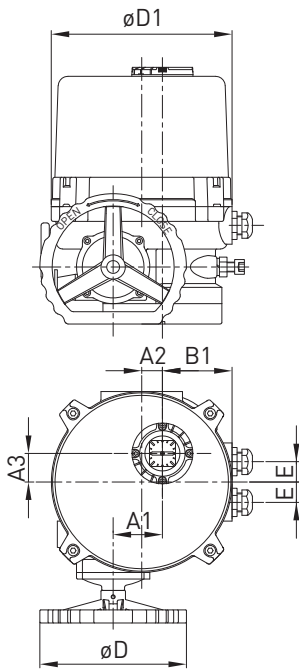
Various Control Type

On-Off, Modulating available Optional Modulating, local control unit, Intelligence control.

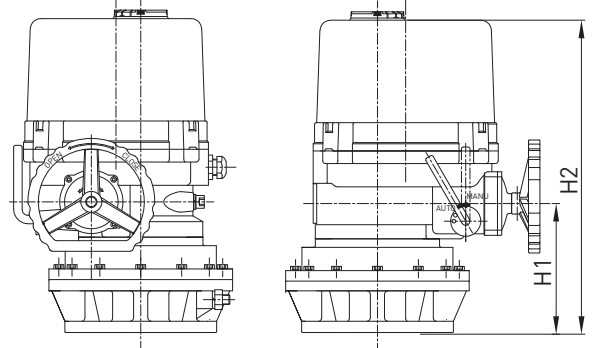


DIMENSION

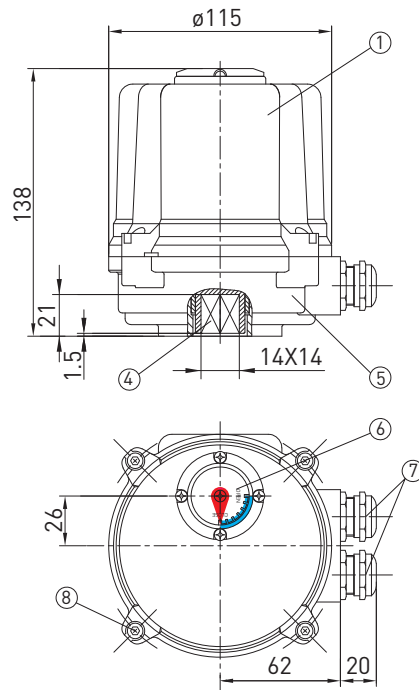
Size 1 - Size 4



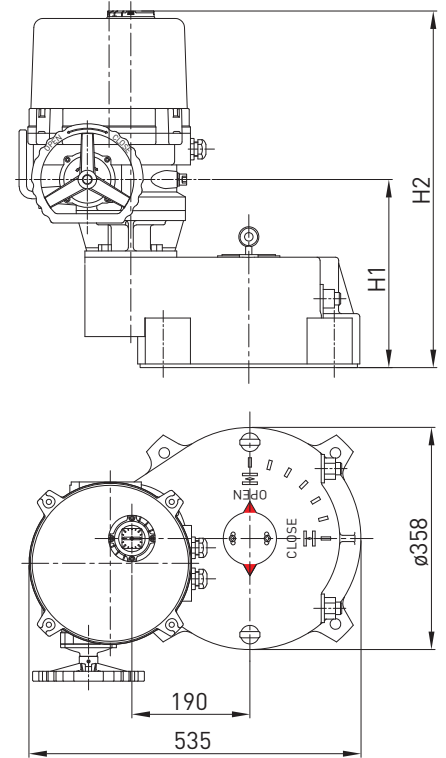
NTQ-200, NTQ-250



NTQ-005



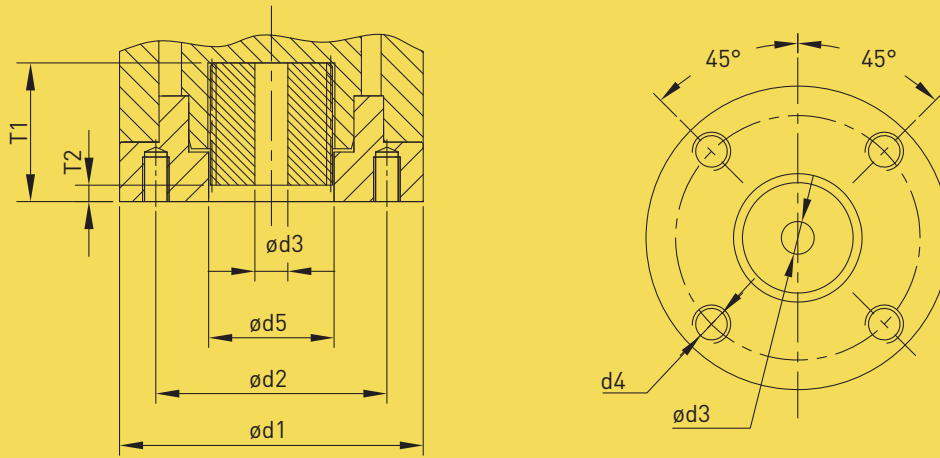
NTQ-400, NTQ-600



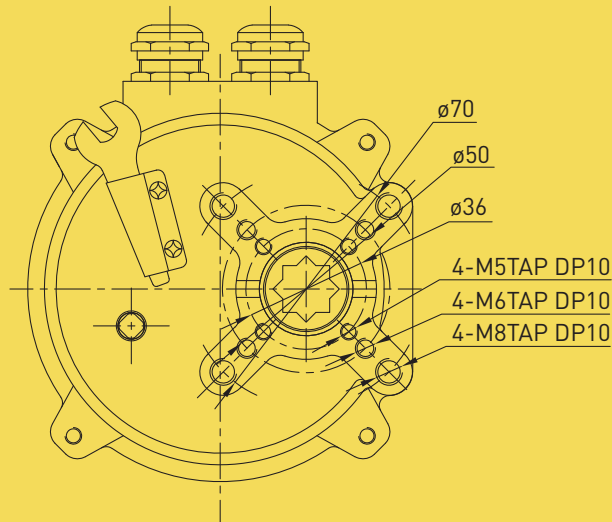
Item	A1	A2	A3	B1	D	D1	E	H1	H2	L	P	Q
Size 1	41	12	31	67	100	157	23	55	223	167	96	179
Size 2	57.5	23.5	27	80.5	180	206	25	67	261	197	115	207
Size 3	60.5	25.5	35	80.5	180	222	25	70	315	208	121	207
Size 4	70	35	40	96	180	262	25	81	352	230	132	222
NTQ-200 NTQ-250	70	35	40	96	180	262	25	185	456	230	236	222
NTQ-400 NTQ-600	70	35	40	96	180	262	25	303	574			

NTQ SERIES MOUNTING BASE DRAWING

ISO 5211 Mounting Base



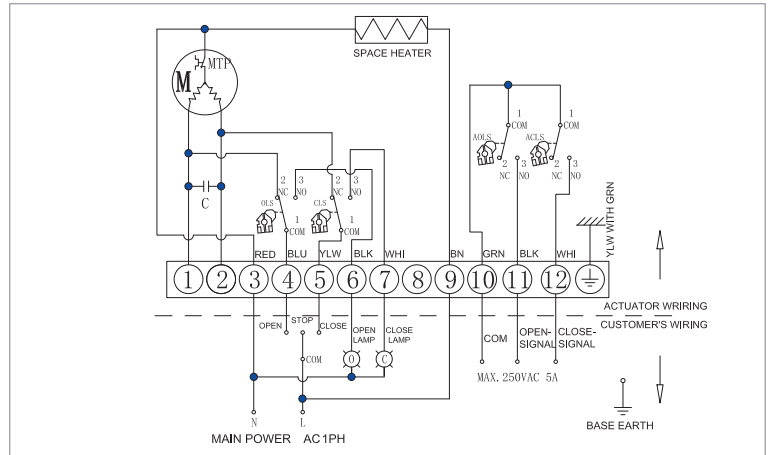
Size 1 ~ Size 4



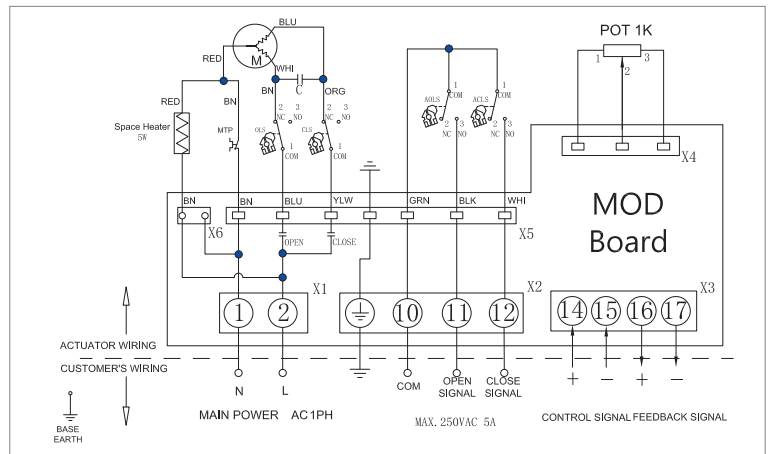
NTQ-005 (□11X11 Star standard)

Item	ISO 5211 Mounting Flange Size	d1	d2	Standard	Max	d5	T1	T2	d4
Size 1	F05	Φ92	Φ50	□14X14 Star	Φ22 □20"	Φ39	42	3	4-M6 RAP DP12
	F07		Φ70		4-M6 RAP DP12				
Size 2	F07	Φ132	Φ70	□17X17 Star	Φ32 □25	Φ48.5	49	3	4-M8-TAP DP 15
	F10		Φ102		4-M10 TAP DP 15				
Size 3	F10	Φ146	Φ102	□22X22 Star	Φ32 □25	Φ48.5	51	5	4-M10 TAP DP 15
	F12		Φ125		4-M12 TAP DP 15				
Size 4	F12	Φ176	Φ125	□27X27 Star	Φ42 □38	Φ90	62	7	4-M12 TAP DP 18
	F14		Φ140		4-M16 TAP DP 25				
NTQ-200 NTQ-250	F14	Φ215	Φ140	Customize	Φ60 □50	Φ118	75	7	4-M12 TAP DP 25
	F16		Φ165		4-M20 TAP DP 25				
NTQ-400 NTQ-600	F16	Φ350	Φ165	Customize	Φ60 □50	Φ135	118	8	4-M20 TAP DP 25
	F25		Φ254						4-M16 TAP DP 30
	F30		Φ298						4-M20 TAP DP 35

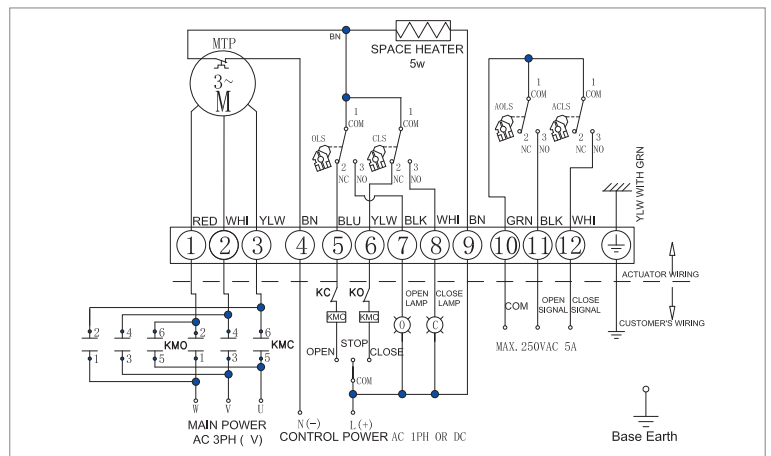
NTQ-006 / 010 ON-OFF (1PH AC110V/220V)



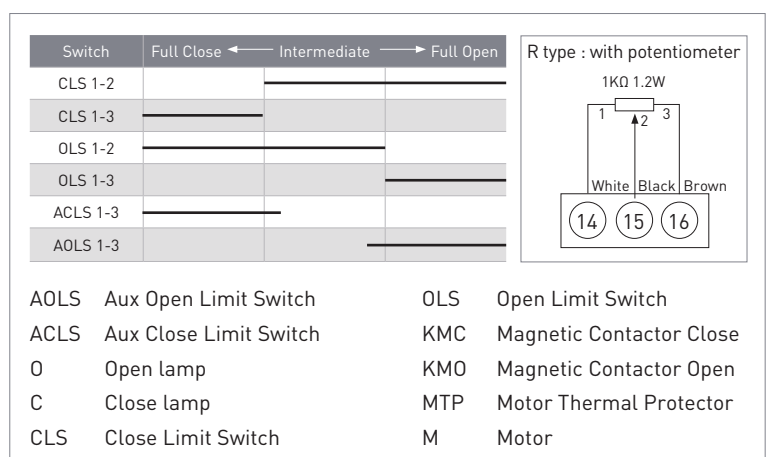
NTQ-006 / 010 ON-OFF (1PH AC110V/220V)



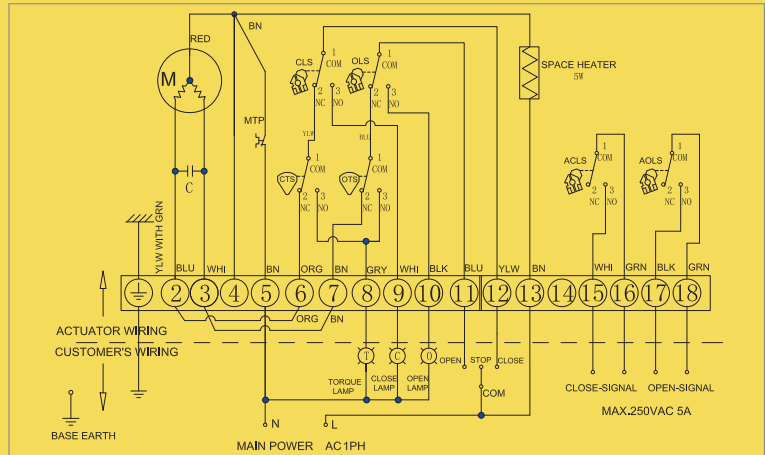
NTQ-006 / 010 ON-OFF (1PH AC110V/220V)



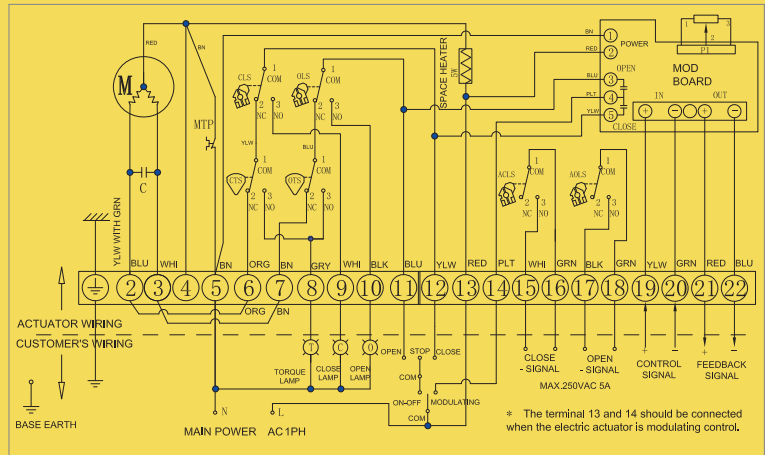
Limit Switches Operation



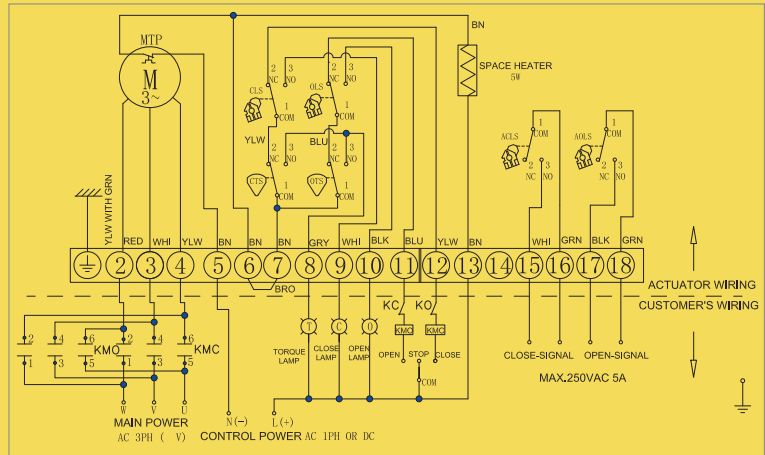
NTQ-016~110 ON-OFF (1PH AC110V/220V)



NTQ-016~110 Modulating (1PH AC110V/220V)

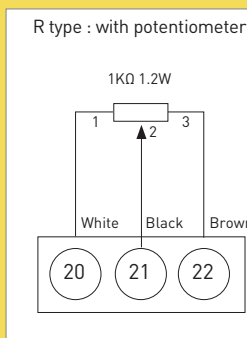


NTQ-016~110 ON-OFF (3PH AC380V / 415V / 440V)



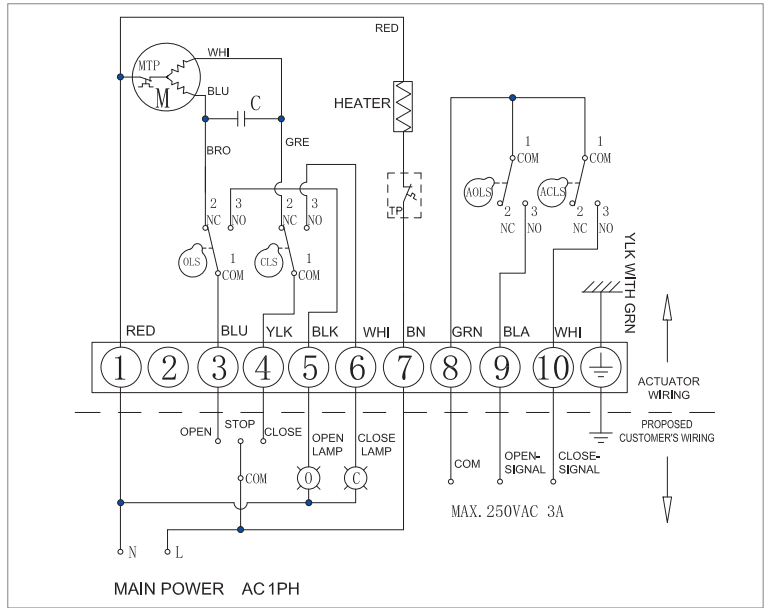
Limit Switches and Torque Switches Operation

Switch	Full Close ←	Intermediate	→ Full Open
CLS 1-2	█		
CLS 1-3	█		
OLS 1-2		█	
OLS 1-3		█	
ACLS 1-3		█	
ACLS 1-3		█	
AOLS 1-2			█
AOLS 1-3			█
CTS 1-3	Closing torque switch interrupts control when mechanical overload occurs during closing cycle		
OTS 1-3	Opening torque switch interrupts control when mechanical overload occurs during opening cycle		

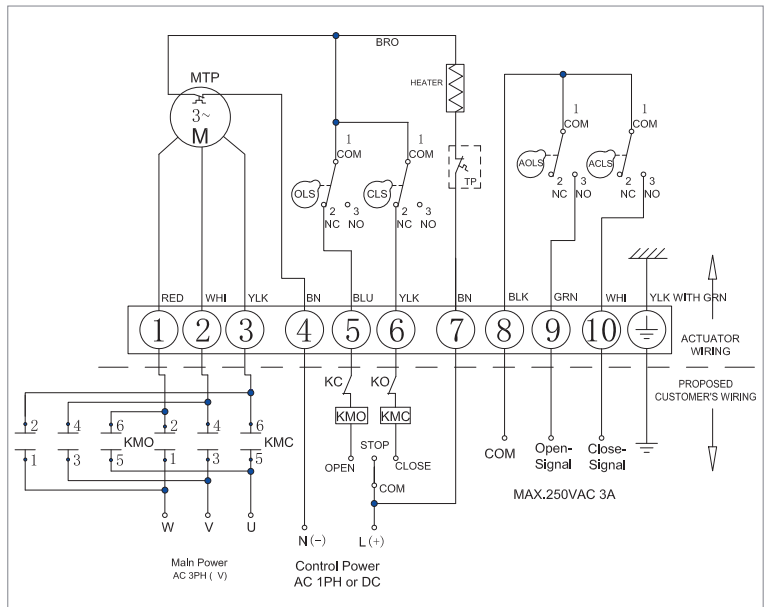


- AOLS Aux Open Limit Switch
- ACLS Aux Close Limit Switch
- O Open lamp
- C Close lamp
- T Torque Switch
- CLS Close Limit Switch
- OLS Open Limit Switch
- CTS Close Torque Switch
- OTS Open Torque Switch
- KMC Magnetic Contactor Close
- KMO Magnetic Contactor Open
- MTP Motor Thermal Protector
- M Motor

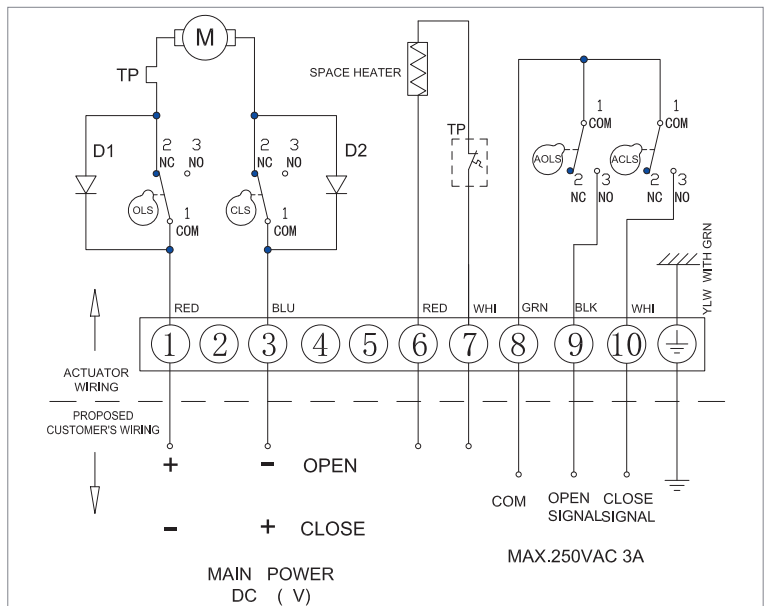
NTQ-005 ON-OFF
(1PH AC110V/220V)



NTQ-005 ON-OFF
(3PH AC380V / 415V / 440V)



NTQ-006 / 010 ON-OFF
(DC24V)



CUSTOMER SUPPORT

Newtork Korea endeavors to achieve the following :

- Manufacturing superior quality products
- Developing technology for user convenience
- Excellent actuation solution
- Fast and accurate on-site service

NEWTORK Actuator Selection Guide

Actuator / valve	Soft Seal BFV 10K, ANSI 150#	2-Way Ball Valve 10K / ANSI 150#
NTQ-010 NTC-10	4" (100A)	1 1/2" (40A)
NTQ-016 NTC-20	5" (125A)	2", 2 1/2" (50,65A)
NTQ-024 NTC-50	6" (150A)	3" (80A)
NTQ-035 NTC-50	8" (200A)	4" (100A)
NTQ-050 NTC-50	10" (250A)	5" (125A)
NTQ-080 NTC-100	12" (300A)	6" (150A)
NTQ-110	14" (350A)	
NTQ-200	18" (450A)	10" (250A)
NTQ-400	20" (500A)	12" (300A)



Actuator must be sized with actual valve torque
 This table is just for reference, NEWTORK do not responsible about actuator sizing from customer
 Please consult factory for bigger valve.



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