

# NUTORK<sup>®</sup>

Actuators & Valves

## NTR Series Quarter Turn Electric Actuator





- ▶ For On-Off and Modulation operation
- ▶ 14 sizes with torque from 100Nm to 8000Nm
- ▶ Robust hard anodized aluminium housing epoxy coated
- ▶ Heavy duty squirrel caged induction motor gives high starting torque
- ▶ Cylindrical type easy visibility position indicator
- ▶ Manual override with non declutchable mechanism
- ▶ Enclosure IP67 and IP68 optional
- ▶ Anti condensation space heater
- ▶ Auxiliary limit & over torque(option) switches to protect actuator
- ▶ Permanently lubricated for trouble free operation
- ▶ Optional accessories available on request
- ▶ Sales support and back up by our team.

NUTORK NTR series electric actuator are available from 100 to 8000 Nm torque output. Due to robust design and construction they can be used in most industrial environments. The housing is hard anodized Aluminium Alloy and external epoxy coating paint provides superior resistance for rigorous environments.

The actuator is fitted with a specially designed squirrel cage induction motor to generate high starting torque and is fitted with thermal overload protection to prevent damage from overheating. Included internal torque(option) and limit switches for remote indication.

The Actuator is designed with planetary gear structure, whose manual operation mechanism is non-clutchable, manual/electric operations do not affect each other, which can be operated easily without handle or clutch mechanism and can also be operated by hand wheel while energizing.

Removable drive bushing allows easy adaption to suit most valve requirements.

Available with a range of optional accessories including extra limit switches, potentiometer, process control unit, local control and signal indication.

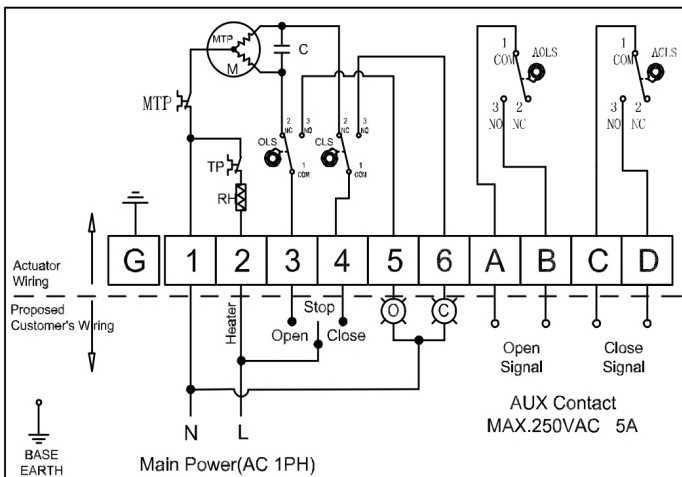
Actuator Model	Valve Conn. ISO5211	Max.Output Torque (Nm)	Power Consumption (W)	Operating Time(S) 50/60Hz	Max.Bore Square ◇	Rated Current (A)				Weight Kg.
						1Ph 220VAC	1Ph 110VAC	3Ph 380VAC	3Ph 440VAC	
NTR-10	F07/F10	100	40	19/16	14/17	0.42	0.84	0.32	0.28	11
NTR-20	F07/F10	200	40	39/33	14/17	0.42	0.84	0.32	0.28	11
NTR-30	F07/F10	300	40	39/33	14/17	0.46	0.92	0.35	0.3	11
NTR-40	F10/F12	400	90	29/24	22/27	0.9	1.8	0.62	0.53	22
NTR-60	F10/F12	600	90	39/33	22/27	0.9	1.8	0.62	0.53	22
NTR-80	F10/F12	800	90	47/39	22/27	0.9	1.8	0.62	0.53	22
NTR-100	F10/F12	1000	120	47/39	22/27	1.1	2.2	0.8	0.69	22
NTR-130	F10/F12	1300	150	47/39	22/27	1.3	2.6	0.92	0.79	22
NTR-170	F12/F16 or F14	1700	200	34/28	27/36	2.2	4.4	1.1	0.95	36
NTR-200	F12/F16 or F14	2000	200	34/28	27/36	2.5	5	1.3	1.12	36
NTR-230	F12/F16 or F14	2300	200	47/39	27/36	2.2	4.4	1.1	0.95	36
NTR-350	F16/F25	3500	200	70/58	40/46/55	2.2	4.4	1.1	0.95	72
NTR-500	F16/F25	5000	200	136/113	40/46/55	2.2	4.4	1.1	0.95	72
NTR-800	F16/F25	8000	200	188/157	40/46/55	2.2	4.4	1.1	0.95	72

## Standard Specification

1. Main Power Supply : Standard: 1Ph/220VAC, 3Ph/380VAC  
Optional: 1Ph/110VAC, 3Ph/440VAC
2. Control Power Supply : 110/220VAC or 24VDC
3. Duty Cycle(On/Off) : S2: 40%~10min
4. Duty Cycle(Modulating) : S4: 25%~600 Start/Hour
5. Motor : Squirrel Caged Induction Motor
6. Limit Switches : 2 x SPST/NO, 10A@250VAC at open/closed position
7. Torque Switches: 1 x SPST/NO, 10A@250VAC (optional)
8. Stall Protection / Set Temp. : Built-in thermal protection: 125 ± 5
9. Position Indicator : 3D two-color scale indicator or arrow indicator(optional)
10. Mechanical stopper : 1 for each travel end ( open & closed), external & adjustable
11. Self-Locking : Provided by self-lock planetary gear (no brake)
12. Manual Override : Non de-clutchable
13. Space heater : 15W(110/220VAC) for anti-condensation
14. Cable Entry : 2 x PG16
15. Lubrication : EP type grease
16. Terminal block : Screw & lever push type(spring loaded)
17. Amb. Temperature: Standard: -25 ~ 70°C
18. Amb. Humidity : 90%RH Max(No - Condensing)
19. Anti Vibration : XYZ 10g, 02 ~ 34Hz,30 minutes
20. External Coating : Dry Powder(Polyester)
21. Enclosure : Weather-Proof IP67, IP68(option)

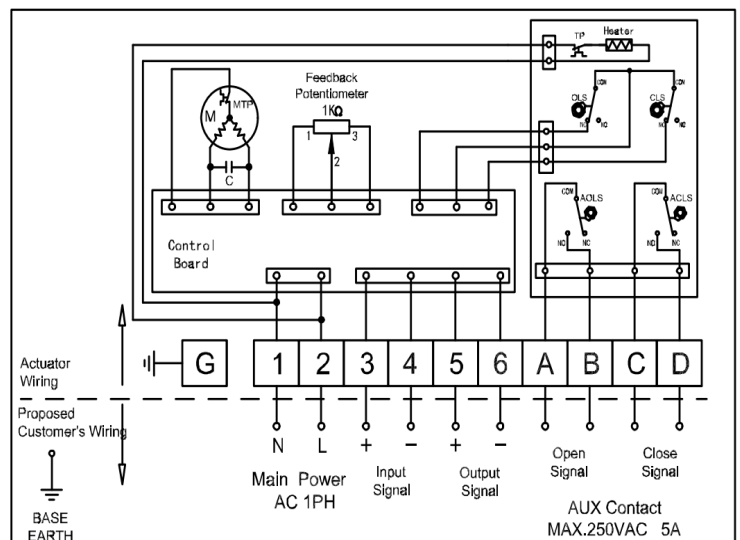
### Additional Functions for NTR Series Electric Actuator

Code	Function
DP	1). Anti-Condensation Indicator (only available in IP67)
TS	2). Torque Switch
LT	3). -40°C Low Temperature Application
WT	4). Water Tight (IP68), not available for LCU function
PCU	5). Modulating control (4-20mADC input/output signal)
CT	6). ON/OFF control with 4-20mADC output signal
LCU	7). Local Control Unit with LCD display and knob switch in local/remote/open/stop/close, IP67
LCD	8). The intelligent type with LCD display & Local Control Unit, IP67
FS	9). Battery pack for fail safe
Canbus	10). Canbus protocol communication, with LCD display, only available in 110~415VAC
Modbus	11). Modbus protocol communication, with LCD display, only available in 110~415VAC
Profibus	12). Profibus DP protocol communication, with LCD display, only available in 110~415VAC
Hart	13). Hart protocol communication, with LCD display, only available in 110~415VAC
Blank	14). Option for various voltage motor in 110VAC/440VAC



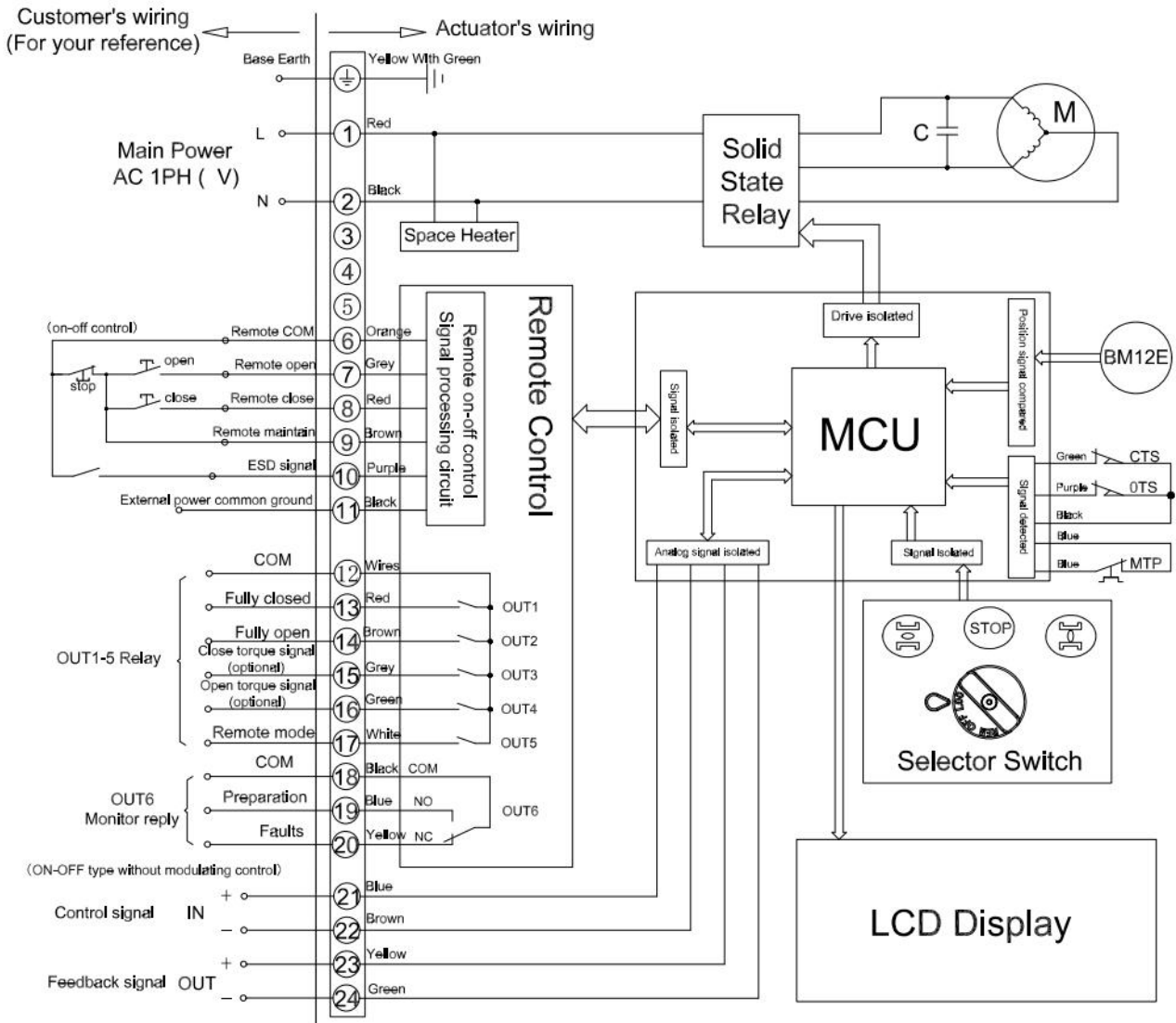
Wiring drawing for Modulating type

### Wiring drawing for ON/OFF type

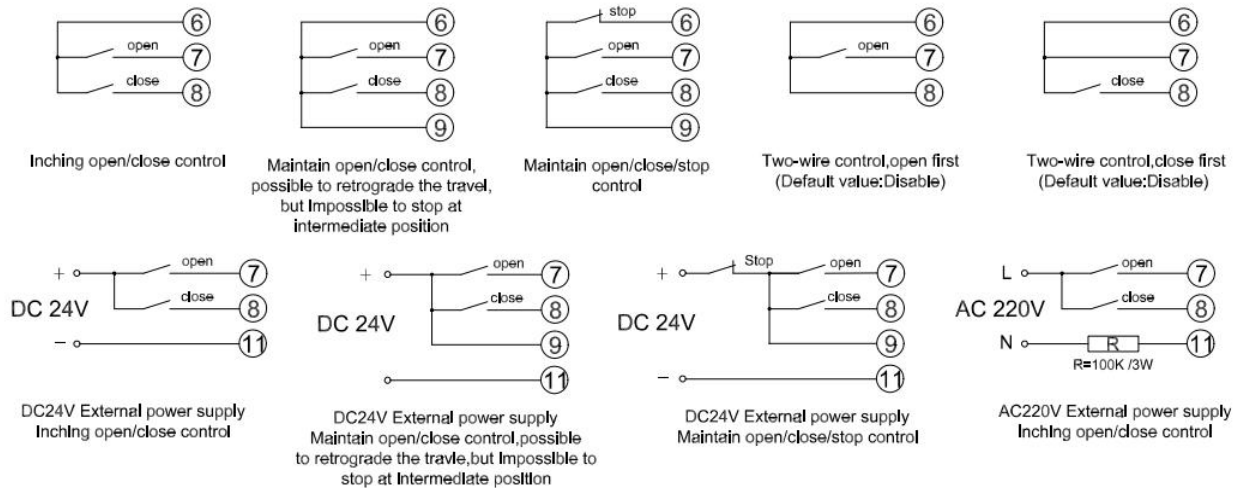




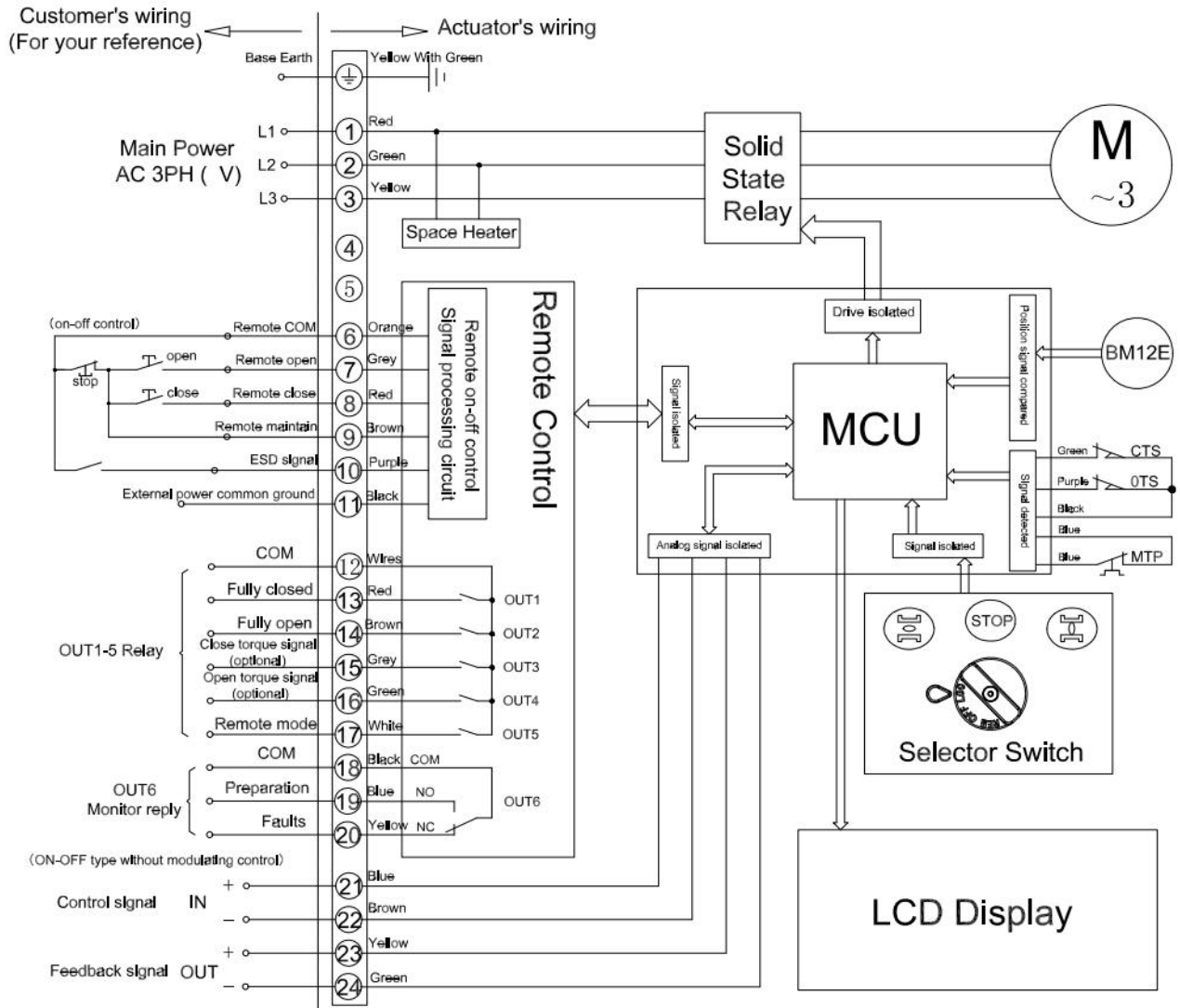
### NTR Wiring Drawing for Non-intrusive Type and Intelligent Type (1PH, AC220V/110V)



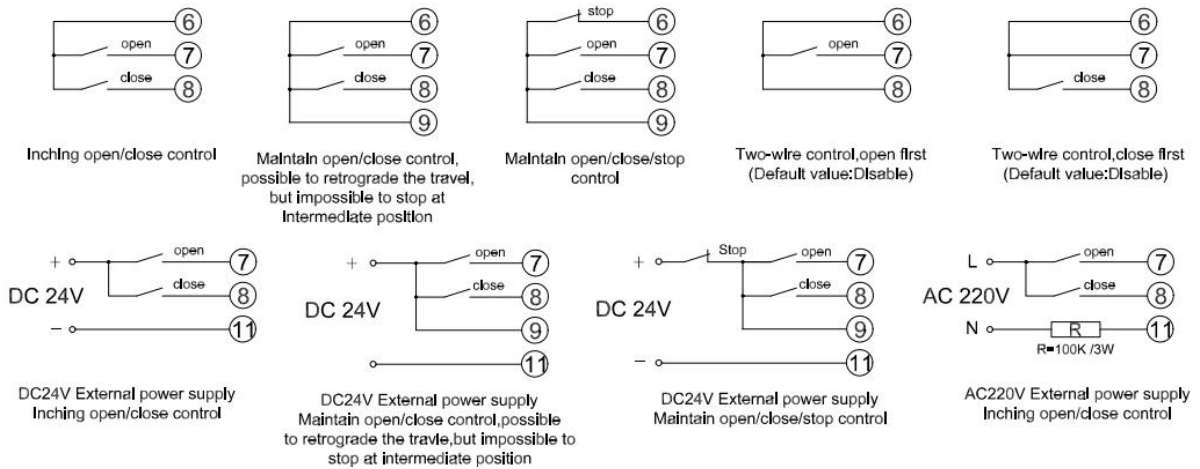
### Remote on-off (Manual) control



### NTR Wiring Drawing for Non-intrusive Type and Intelligent Type (3PH, AC380V/415V/440V)



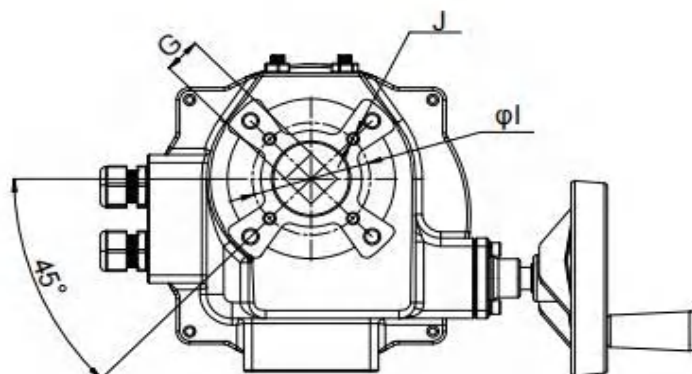
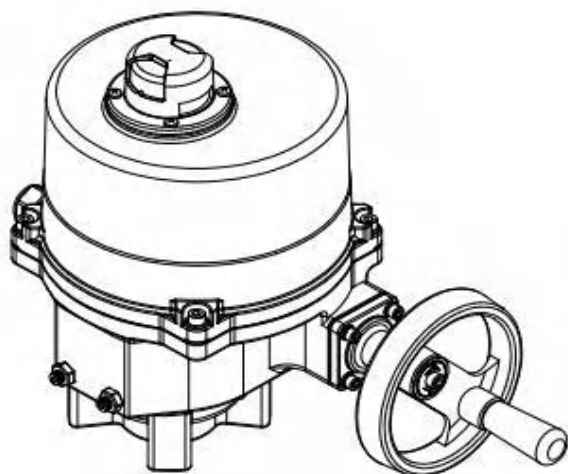
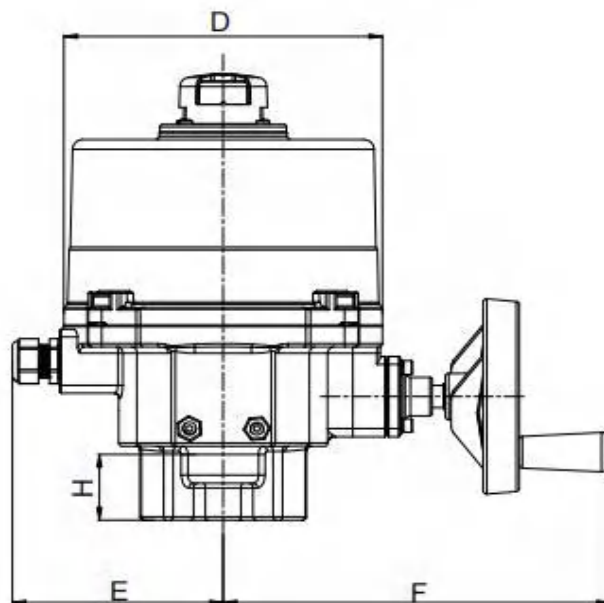
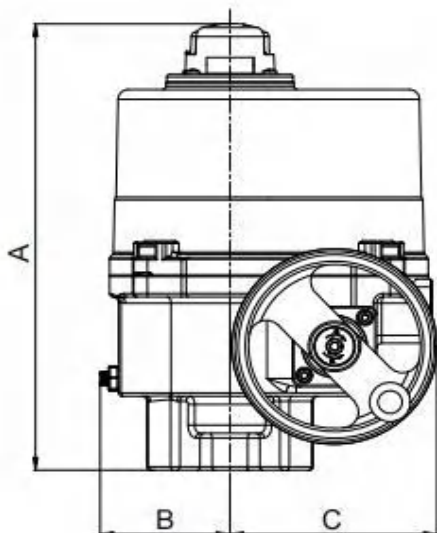
### Remote on-off (Manual) control



### Dimension

mm

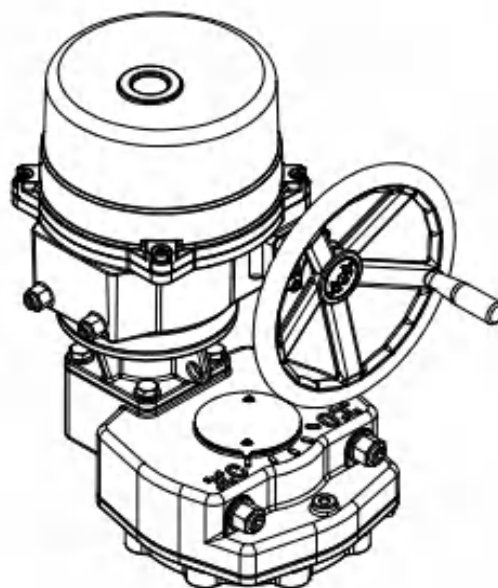
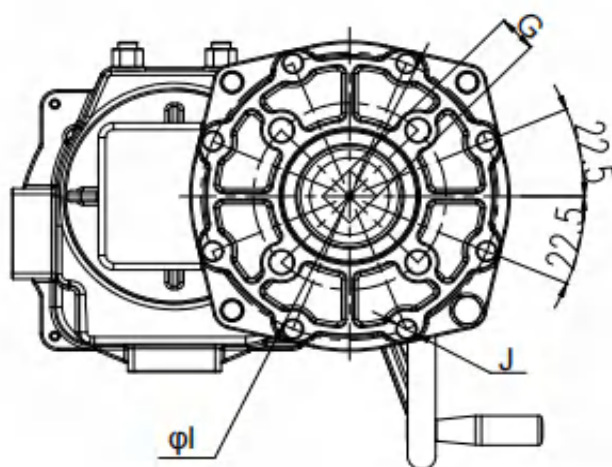
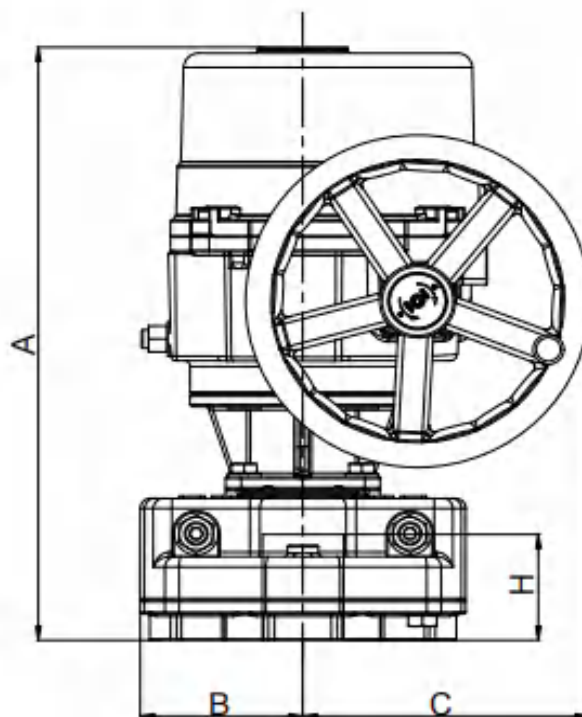
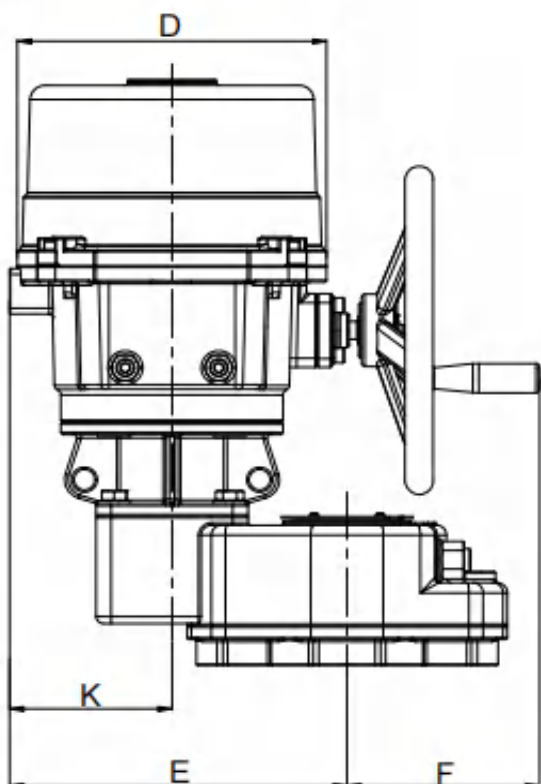
Model	A	B	C	D	E	F	G	H	φI	J
NTR-10	278	78	125	189	125	232	14*14	35	70	4-M8
NTR-20							17*17		102	
NTR-30										
NTR-40	340	105	190	232	158	290	22*22	55	102	4-M10
NTR-60							27*27		125	4-M12
NTR-80										
NTR-100										
NTR-130	390	129	245	265	165	325	27*27	65	125	4-M12
NTR-170							36*36		140	4-M16
NTR-200										
NTR-230										



### Dimension

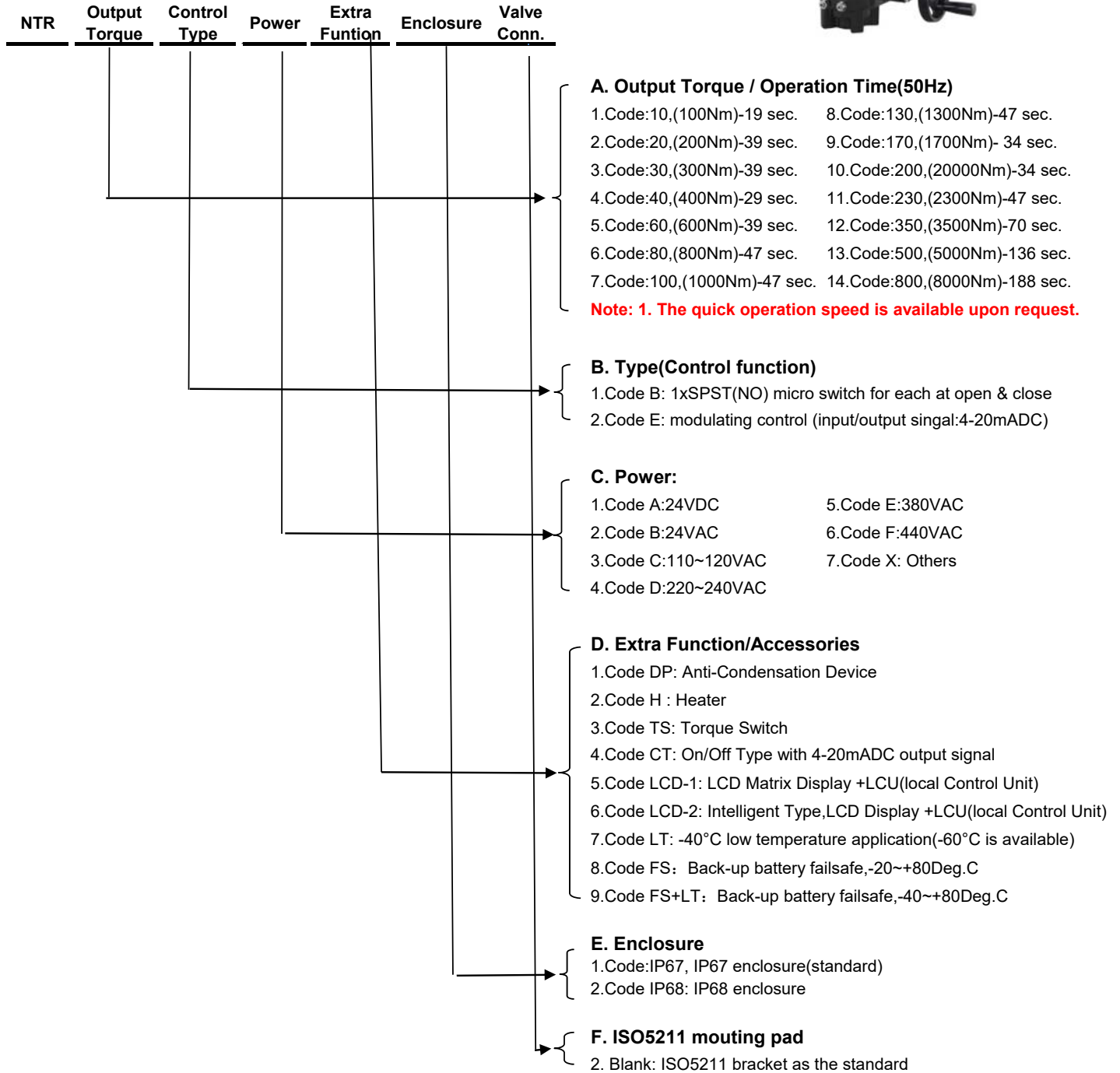
mm

Model	A	B	C	D	E	F	G	H	φI	J	K
NTR-350	517	137	242	265	289	165	36*36 46*46	130	165 254	4-M20 8-M16	139
NTR-500											
NTR-800											

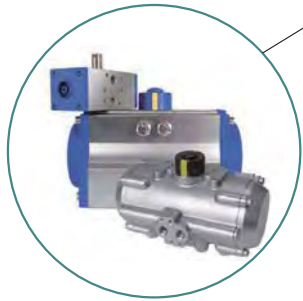




## Ordering Information



**NUTORK CORP.** manufactures a wide range of pneumatic actuators, electric actuators and the accessories of pneumatic actuator (limit switchbox, solenoid valve, manual override ---etc.) for quarter turn valves



Rack & Pinion Type Pneumatic Actuator.  
**Max. Output Torque: 9,768Nm**  
 Approved by ATEX/SIL3/EAC/SGS



Scotch Yoke Type Pneumatic & Hydraulic Actuator.  
**Max. Output Torque 238,818Nm**  
 Approved by ATEX/SIL3/EAC



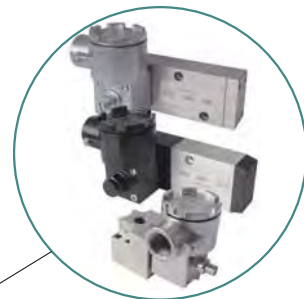
NTQ Series Electric Actuator  
 IP67/IP68(30M@24hrs)Enclosure & EExdIIBT6  
**Max. Output Torque 6000Nm**  
 Approved by SIL3/IP68/MD/LVD/EMC & Approved by ATEX/EAC/DNV



NTE Series Electric Actuator  
 IP67/IP68(30M@24hrs)  
 Enclosure  
**Max. Output Torque 6000Nm**  
 Approved by SIL3/IP68/MD/LVD/EMC & Approved by EAC/DNV



Limit Switchbox IP67/IP68(50M@72hrs)  
 Enclosure & EExdIIBT6/EEExdIICT6  
 Approved by ATEX/SIL3/EAC



Solenoid Valve 3/2NC & 5/2 Way, Static O-ring Sealing Design.  
 Aluminum & 316SS Body  
 IP67 & EExdIIBT6/EEExdIICT6  
 Approved by ATEX/SIL3/SGS



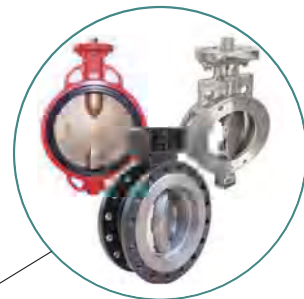
Air Filter Regulator Aluminum Body with Vinyl Paint & 316SS Body.  
 Size: 1/4" ~ 2"  
 Approved by EAC/SGS



Manual Override Aluminum & Cast Iron & Ductile Iron Body  
**Max Output Torque 18,000Nm**



Ball valve (Floating ball design),  
 We can provide different pressure rating/ connection type/ operation mode.



Concentric Soft Seated Butterfly Valve  
 High Performance Double Eccentric Butterfly Valve  
 High Performance Triple Offset Metal Seated Butterfly Valve  
 We can provide different pressure rating/ connection type/ operation mode.