

NUTORK®

Actuators & Valves



CE SIL3 Ex

essco
PROCESS VALVES

NTE Series Quarter Turn Electric Actuator



Approved By:
SIL3 Approval
Low Voltage Directive 2014/35/EU
Machinery Directive 2006/42/EC
Electromagnetic Compatibility Directive 2014/30/EU

NUTORK CORPORATION



1. Due to characteristics of valve, the electric actuator must be able to provide high start up torque with full load whenever the valve is at open, closed or any other position. NUTORK NTE series electric actuators are designed for such working requirement.
2. Gear driving unit is made of alloy steel with heat treatment featuring high strength, excellent wear resistance and long term fatigue load impact.
3. The crank handle is designed as detachable to minimize the dimension of the actuator.
4. The integral construction of the wormgear and drive shaft provides long term dependable operation with high output torque.
5. The captive cover bolt prevents bolt from dropping when cover is opened.
6. The stainless steel stroke bolt and cam provide 0 - 90° adjustability.
7. The tempered glass visual position indicator provides anti-aging, temperature resistance and anti-deformation.
8. The epoxy encapsulated control servo unit provides heat insulation, moisture and dust proofing, thus suitable for various industrial process requirements.

Technical Data

Model	NTE-03	NTE-05	NTE-10	NTE-20	NTE-40	NTE-60	NTE-100	NTE-160	NTE-200	NTE-300	NTE-400	NTE-600	
Output Torque(Nm)	30	15/30/50	50/60/100	80/100/150/200	150/250/300/400	600	300/800/1000	1600	2000	3000	4000	6000	
Operational Speed (Sec.)@0-90°/50Hz	20	10/20/30	15/20/30	9/15/20/30	9/15/20/30	30	15/30/50	88	100	60	100	150	
Operational Angles(Max.)	0-360°	0-360°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	
Valve Conn./ISO5211	◇9/11-F03/F05 or ◇14-F05/F07		◇14/17-F05/F07	◇17/22-F07/F10	◇17/22/27-F07/F10			◇22/27-F10/F12 or ◇36-F14/F16		◇27/36-F12/14/16	Bare Shaft		
Power-(Watts)	DC motor	20	20	40	40	90	90
	AC motor	10	10	23	40	90	90	100	100	100	200	200	200
Rated Current-(A)	24VDC	2	2	2.4	8.5	11.5	11.8	11.5
	110VAC	0.48	0.48	0.64	0.9	2	2.06	2.2	2.2	2.2	3.9	4.10	4.10
	220VAC	0.24	0.24	0.32	0.48	0.92	0.95	1.20	1.20	1.20	1.90	2.10	2.10
	380VAC	0.15	0.15	0.19	0.25	0.45	0.46	0.48	0.48	0.48	0.90	0.90	0.90
Weight-(Kg)	2.2	2.2	4	7	7.8	7.8	11.2	11.5	11.8	20	31	31	
Duty Cycle(On/Off Type)	S2: 35%, 10min.~30min.												
Duty Cycle(Modulating Type)	S4: 30%~50%, 300~1200 Start/Hour												
Power Supply	1.Phase:110/220VAC±10%@50/60Hz, 3Phase/380/440VAC±10%@50/60Hz, 12VDC.24VDC/VAC												
Thermal Protector	standard accessory, built-in, auto-reset type												
Anti-Vibration	XYZ 10g, 0.2~34Hz, 10min.												
Ambient Humidity	90%RH Max. (non-condensing)												
Ambient Temperature	-30°C ~ +60°C												
Enclosure Rating	IP67(Standard), IP68(Option)												
Mounting Direction	All Directions												
Electrical Conduit	M20×1.5 with cable gland for standard type(2×M20×1.5 with cable gland for modulating type)												
Manual Operation	Detachable crank handle(standard accessory)												
Stopper	In operation:limit switches at fuu&closed position;Manual operation;mechanical stopper												
Housing Material	Die-casting aluminum alloy												
Various Option	1. Type A standard type												
	2. Type B additional limit switches (2 ×SPST)												
	3. Type C potentiometer unit (1KΩ or 5KΩ)												
	4. Type D potentiometer unit (1KΩ or 5KΩ)with additional limit switches (2 units)												
	5. Type E modulating controller (input signal:4-20mA or 1-5VDC.output signal:4-20mA)												
	6. Type F current position transmitter(output signal:4-20mA)												
	7. Space heater												
	8. Torque switches(2 units)												
	9. Various voltages (110/220/380VAC&24VDC,the other voltage is available upon request)												

Different Function for NTE Series Electric Actuator:

1. With GREE/RED LED Dome Indicator



2. With Torque Switch, only available in NTE-10~NTE-60



3. With Handwheel



4. With Local Control Unit, 24VDC is not available

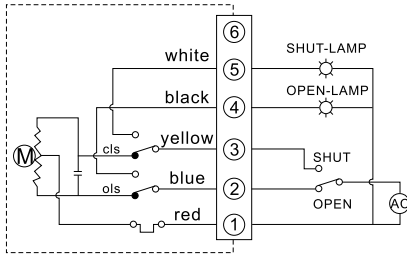


5. With Junction Box, only available in NTE-05~NTE-200



Type A: Standard Type

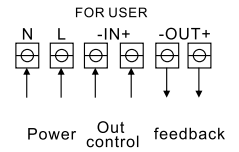
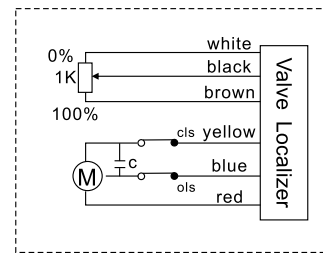
Output Signal:
2xSPST(NO) with
line power switch



Type E: Modulating Control

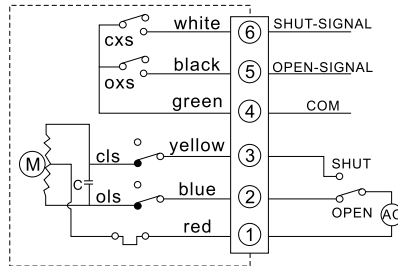
Input Signal:
4-20mADC or 0-10VDC

Output Signal:
4-20mADC or
0-10VDC



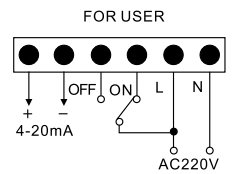
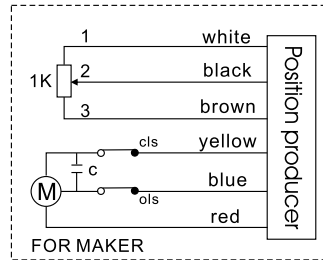
Type B: 2xSPST(NO)

Output Signal:
1xSPST(NO)
micro-switch each at
open & close position.



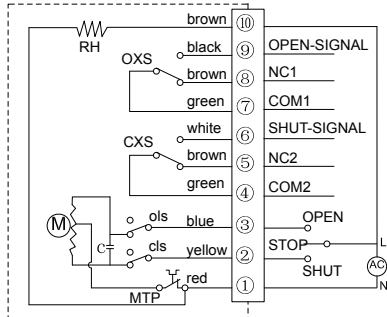
Type F: R/I Converter

Output Signal:
4-20mADC



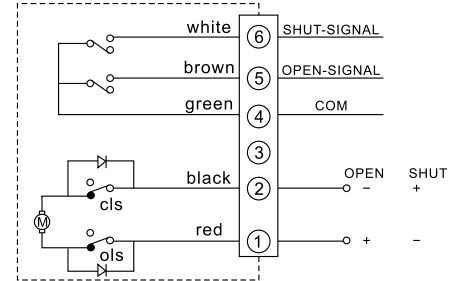
Type B1: 2xSPDT(NO/NC)

Output Signal:
1xSPDT(NC/NO)
micro-switch each at
open & close position



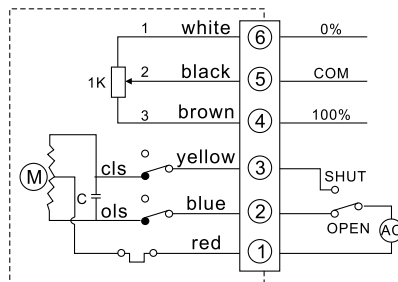
DC Motor with 2xSPST(NO)

Output Signal:
1xSPST(NO)
micro-switch each at
open & close position.



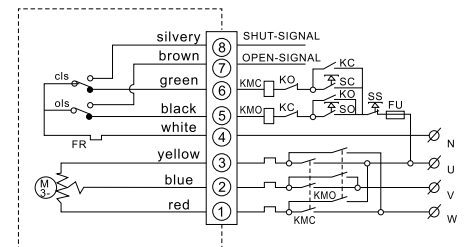
Type C: Potentiometer

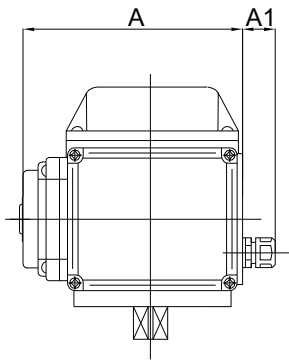
Output Signal:
0-500Ω or 0-1000Ω



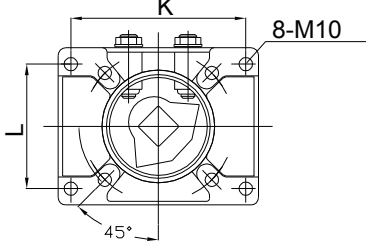
3 Phase, 380/415/440VAC Motor with 2xSPST(NO)

Output Signal:
1xSPST(NO)
micro-switch each at
open & close position.

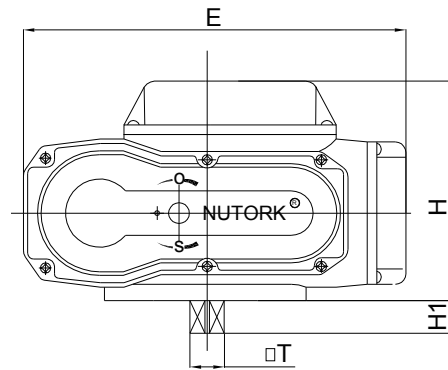




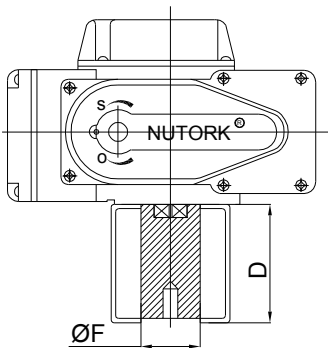
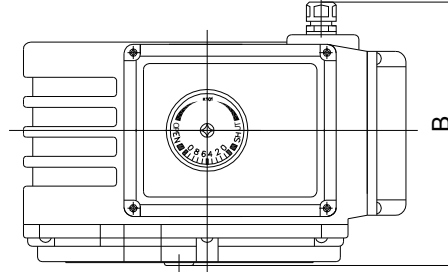
Bare Shaft



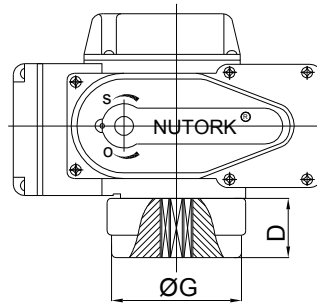
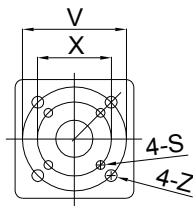
Bare Shaft



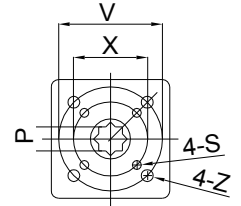
Bare Shaft



Bracket + Coupler



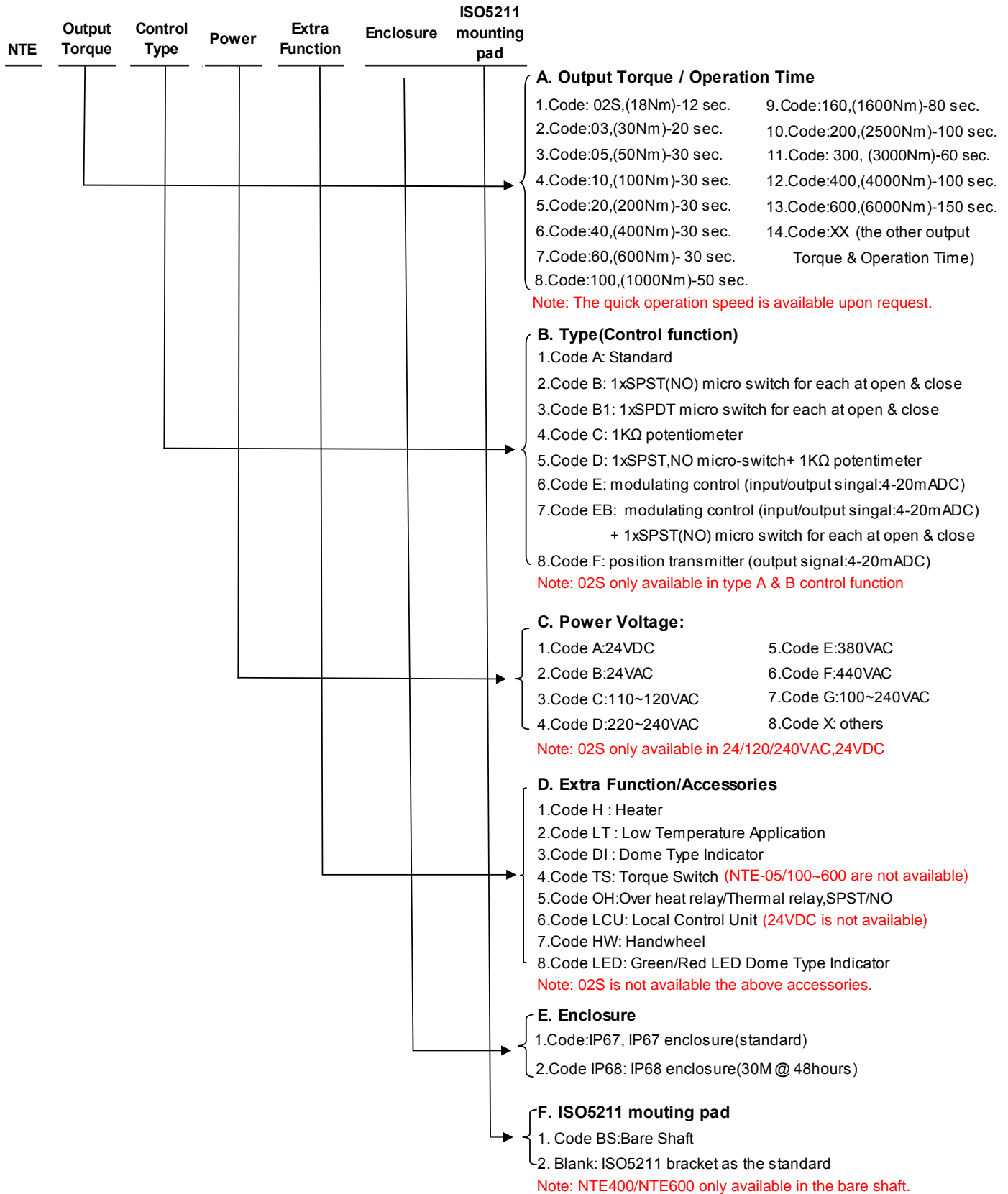
ISO5211



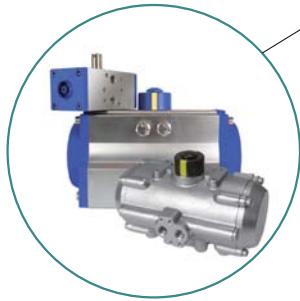
MM

Model	A	A1	E	H	H1	T	K	L	B	X	V	◇P	S	Z	ØG	ØF	D
NTE-03	115	22	160	103	12	12*12	68	60	138	36	50	9/11/14	4-M5	4-M6	70	28	Followed by Valve
NTE-05	115	22	160	103	12	12*12	68	60	138	36	50	9/11/14	4-M5	4-M6	70	28	
NTE-10	123	22	208	124	19	15*15	82	70	105	50	70	9/11/14	4-M6	4-M8	90	35	
NTE-20	148	22	258	148	22	23*23	118	84	178	70	102	14/17	4-M8	4-M10	125	48	
NTE-40	148	22	258	148	22	23*23	118	84	178	70	102	17/22	4-M8	4-M10	125	48	
NTE-60	148	22	258	148	22	23*23	118	84	178	70	102	17/22	4-M8	4-M10	125	48	
NTE-100	156	27.5	280	159	25	30*30	148	84	187	102	125	22/27	—	4-M10	135	65	
NTE-160	156	27.5	280	159	25	30*30	148	84	187	102	125	22/27	—	4-M10	135	65	
NTE-200	156	27.5	280	159	25	30*30	148	84	187	140	165	36	—	4-M16	175	65	
NTE-300	234	22	325	165	30	36*36	148	116	257	140	165	27/36	—	4-M16	—	—	
NTE-400	266	—	439	179	48	52*52	180	180	266	159	254	52	—	4-M18	—	—	
NTE-600	266	—	439	179	48	52*52	180	180	266	159	254	52	—	4-M18	—	—	

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.
(Certificated by CE-ATEX/SIL3)
Max. Output Torque: 9340Nm



Scotch Yoke Type Pneumatic & Hydraulic Actuator.
(Certificated by CE-ATEX/SIL3)
Max. Output Torque 293800Nm



NTQ Series Electric Actuator
IP67/IP68(30M@24hrs)Enclosure & EExdIIBT6Max. Output Torque 6000Nm
Approved by SIL3/IP68/MD/LVD/EMC.



NTE Series Electric Actuator
IP67/IP68(30M@24hrs)
EnclosureMax. Output Torque 6000Nm
Approved by SIL3/IP68/MD/LVD/EMC.



Limit Switchbox IP67/IP68(50M@72hrs)
Enclosure & EExdIIBT6/EEExdIICT6



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



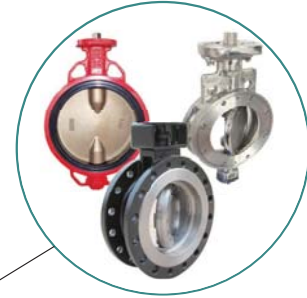
Air Filter Regulator Aluminum Body with Vinyl Paint & 316SS Body.
Size: 1/4" ~ 1"



Manual Override Aluminum & Cast Iron & Ductile Iron Body
Max Output Torque 70000Nm



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.