

NUTORK®

Actuators & Valves



NTE Series Quarter Turn Electric Actuator

NTE - 02L
ABS Enclosure



NTE - 02S Type



Visual Indicator
+Handwheel (Option)



Internal Magnet
Contactor For 24VDC(Optional)



Modulating Type



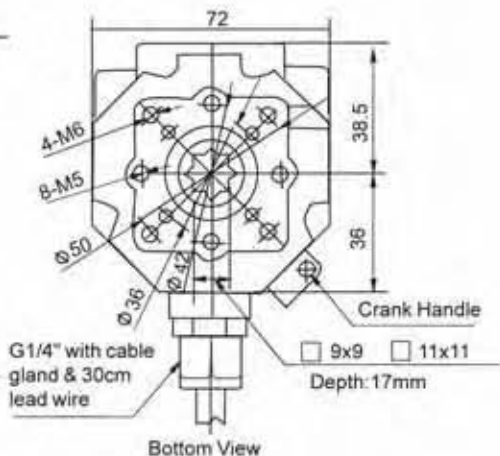
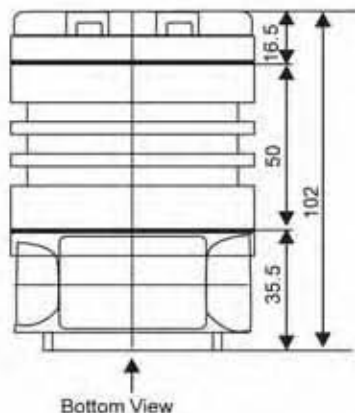
Standard Type



NUTORK CORPORATION



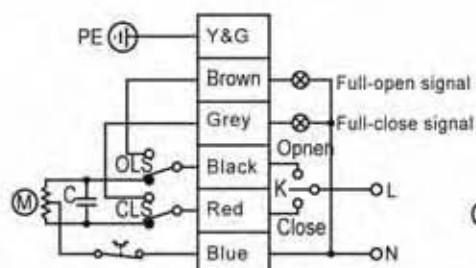
1. Due to characteristics of valve, the electric actuator must be able to provide high start up torque with full load whenever the valve is at open, closed or any other position. NUTORK NTE series electric actuators are designed for such working requirement.
2. Gear driving unit is made of alloy steel 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.



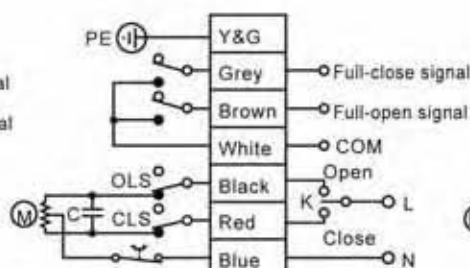
Manual Operation

Model	NTE-02S			
Power	110/220VAC		24VDC	
Output Torque(Nm/in.lbs)	18/160	9/80	18/160	9/80
Operation Speed(sec.)	12	6	12	6
Power Consumption(W)	6		8	
Rated Current(A)	0.28	0.15	1.10	
Insulation Resistance	100MΩ@500VDC		100MΩ@250VDC	
Withstand Voltage	1500VAC@1 Min.		550VAC@1 Min.	
Thermal Protection	standard accessory, built-in, auto-reset type			
Mounting Direction	All directions			
Ambient Temp.	-30°C ~ +60°C			
Valve Connection	ISO5211, □9/11mm x F03/F04/F05			
Dimension(mm)	72(W) x 75(L) x 120(H)			
Enclosure	IP68			
Housing Material	Die-casting aluminum alloy			
Weight(Kg/Lbs)	1.2/2.65			

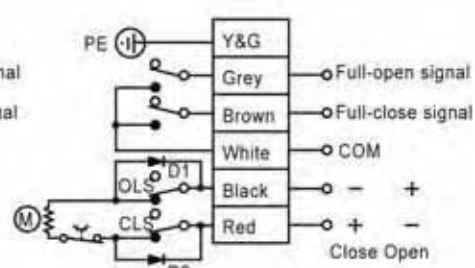
Wiring Diagram



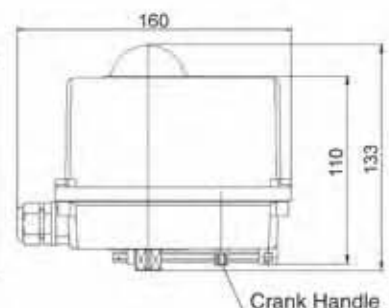
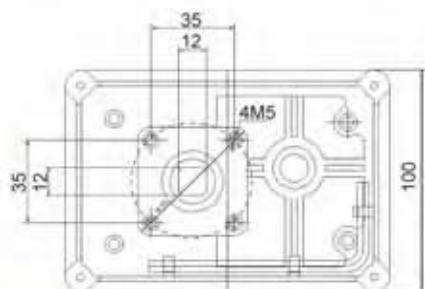
Type:A



Type:B

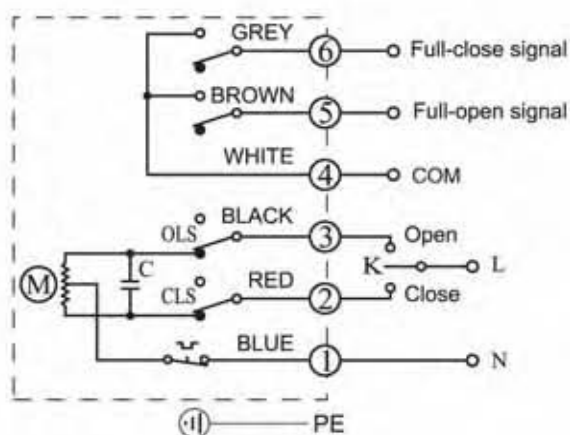


Type B: 24VDC

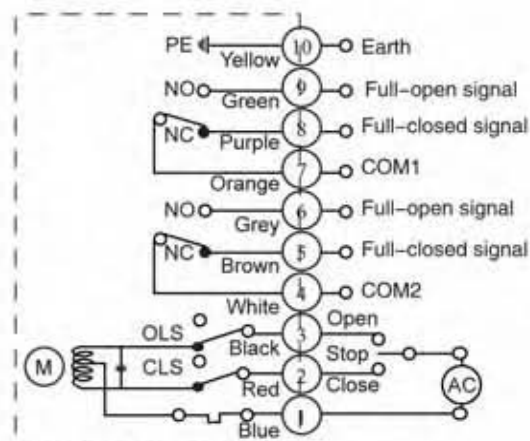


Model	NTE-02L		
Power	24VAC	110VAC	220VAC
Output Torque	25Nm(222in.lbs)		
Operation Speed(sec.)	10 sec.		
Power Consumption(W)	20W	18W	18W
Rated Current(A)	1.1	0.2	0.1
Insulation Resistance	100MΩ@500VDC		
Withstand Voltage	1500VAC @ 1 min		
Thermal Protection	Standard accessory, built-in, auto-reset type		
Mounting Direction	All Direction		
Ambient Temperature	-30°C ~ +60°C		
Valve Connection	12x12x12mm square drive shaft x F05		
Dimension(LxWxH),mm	160(L)x100(W)x133(H)mm		
Enclosure	IP65		
Housing Material	ABS		
Weight(Kg)	1.4Kg		

Wiring Diagram



Type: B



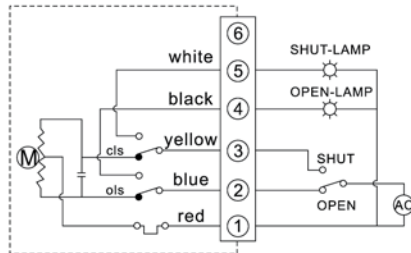
Type: B1

Technical Data

Model		NTE-03	NTE-05	NTE-10	NTE-20	NTE-40	NTE-60	NTE-100	NTE-160	NTE-250	NTE-400	NTE-600
Output Torque -(Nm)		30	50	100	200	400	600	1000	1600	2500	4000	6000
Operational Speed (Sec.) @ 0-90°/50Hz		10	20 / 60	30 / 60	30 / 60	30 / 60	45	30	48	75	100	150
Operational Angle(Max.)		0-360°	0-360°	0-360°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°
Power - (Watts)	DC motor	13	13	25	35	70	70	-----	-----	-----	-----	-----
	AC motor	10	10	25	40	90	90	120	140	140	200	200
Rated Current - (A)	24VDC	1.28	1.28	2.03	3.57	5.13	6.04	-----	-----	-----	-----	-----
	110VAC	0.24	0.24	0.57	0.65	1.12	1.18	1.93	1.75	1.75	4.10	4.10
	220VAC	0.16	0.16	0.35	0.37	0.57	0.60	0.94	0.96	0.98	2.10	2.10
	380VAC	-----	-----	0.10	0.15	0.29	0.29	0.44	0.46	0.48	0.90	0.90
Duty Rating		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Weight - (Kg)		2.0	2.0	3.0	8.0	8.5	9.0	17.0	17.5	18.0	31.0	31.0
Power Supply		1 Phase: 110/220VAC±10% @ 50/60Hz, 3 Phase/ 380VAC±10% @ 50/60Hz, 12VDC, 24 VDC										
Thermal Protector		Standard accessory: built-in, auto-reset type										
Insulation Resistance		24VDC:100MΩ @ 250VDC,110/220/380VAC:100MΩ @ 500VDC,										
Withstand Voltage		24VDC: 550VAC @ 1Min. , 110/220VAC: 1500VAC @ 1Min. , 380VAC:1800VAC @ 1Min.										
Enclosure Rating		IP67, IP68										
Ambient Temperature		- 30 ~ +60℃										
Mounting Direction		All directions										
Electrical Conduit		G1/2" with cable gland for standard type(2xG1/2" with cable gland for modulating type)										
Manual Operation		Detachable crank handle(standard accessory)										
Stopper		In operation: limit switches at full & closed position.Manual operation: mechanical stopper										
Housing Material		Die-casting aluminum alloy										
Various Options		1.Type A: standard type										
		2.Type B: additional limit switches(2units)										
		3.Type C: potentiometer unit(1KΩ or 500Ω)										
		4.Type D: potentiometer unit(1KΩ or 500Ω) with additional limit switches(2units)										
		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(2units)										
		9.Various voltages(110/220/380VAC & 24VDC, the other voltage is available upon request)										
		10.Various mounting brackets										

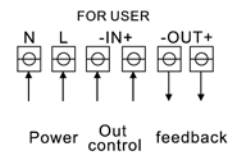
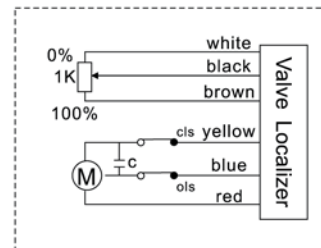
Type A: Standard Type

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



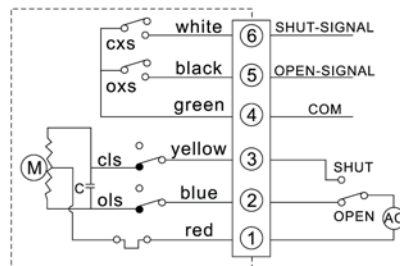
Type E: Modulating Control

Input Signal:
4-20mAC or 0-5VDC
Output Signal:
4-20mADC



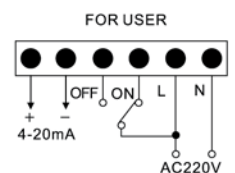
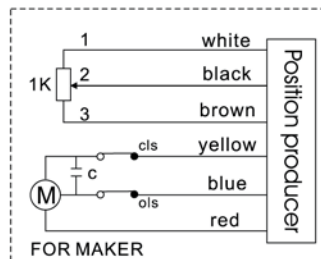
Type B: 2xSPST(NO)

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



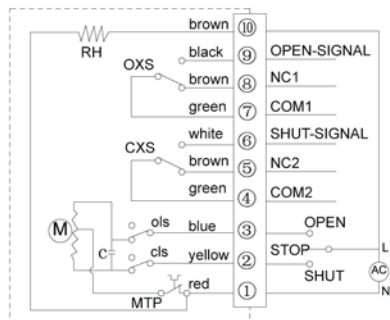
Type F: R/I Converter

Output Signal:
4-20mADC



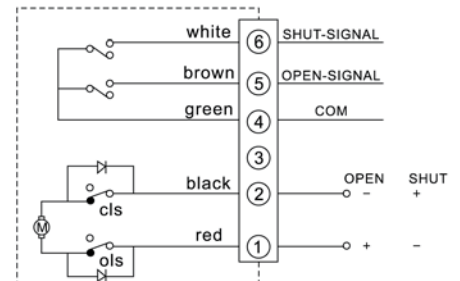
Type B1: 2xSPDT(NO/NC)

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



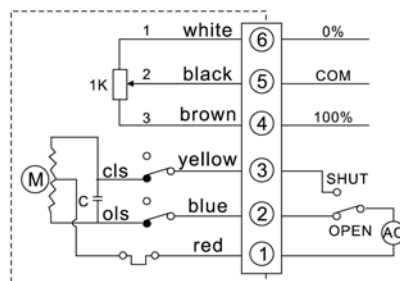
DC Motor with 2xSPST(NO)

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



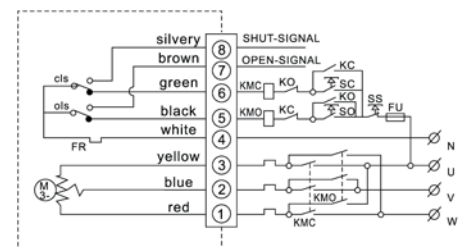
Type C: Potentiometer

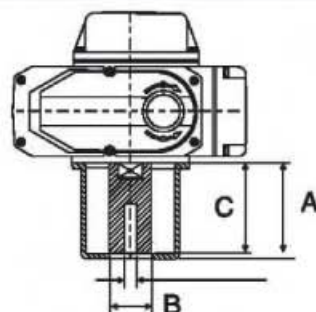
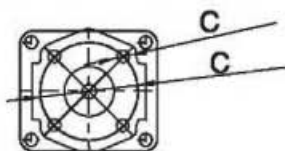
Output Signal:
0-500Ω or 0-1000Ω



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

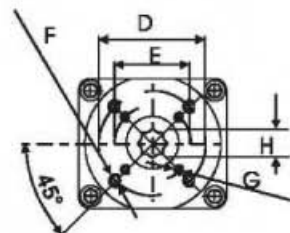
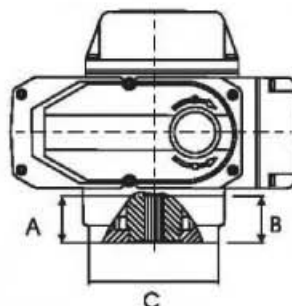
Output Signal:
1xSPST(NO)
micro-switch each at
open & close position.





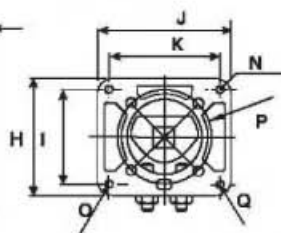
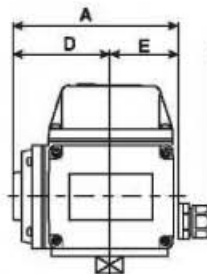
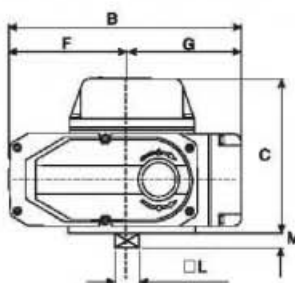
Actuator+Mounting Bracket+Coupling

Model	A	B	C
NTE-03/05	60	28	follow valve's dimension
NTE-10	80	35	
NTE-20	80	48	
NTE-40/60	100	48	
NTE-100/160	80	65	
NTE-250	100	65	



Actuator + ISO-5211 Mounting Bracket

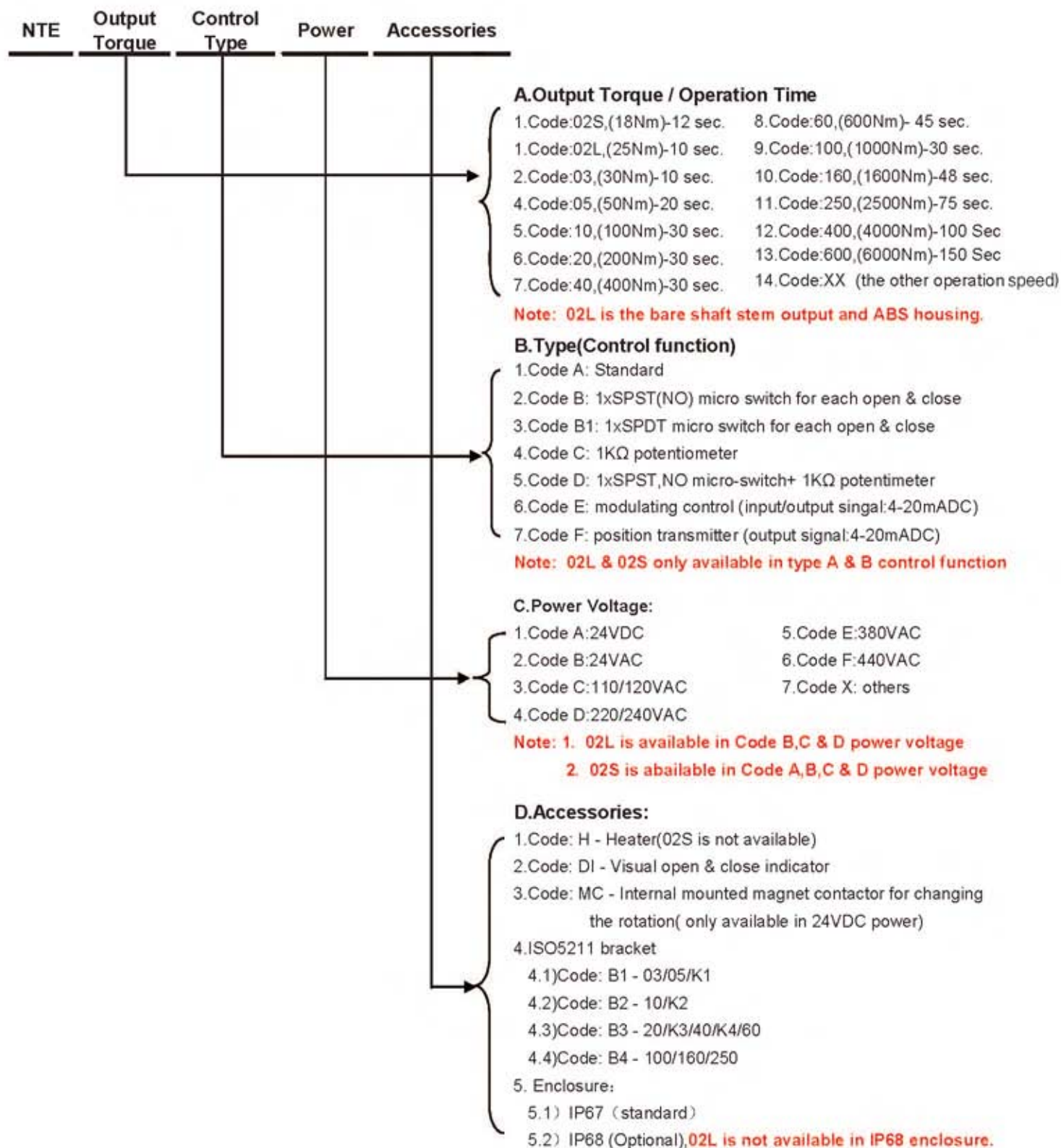
Model	A	B	C	D	E	F	G	◇H
NTE-03/05	19	22	70	50	36	4-M6	4-M5	9 /11/14
NTE-10	33	36	90	70	50	4-M8	4-M6	9 /11/14
NTE-20	45	48	125	102	70	4-M10	4-M8	14/17
NTE-40/60	45	48	125	102	70	4-M10	4-M8	17/22
NTE-100/160	47	50	135	125	102	4-M10	----	22/27
NTE-250	67	70	175	165	140	4-M16	----	36



Bare Shaft Actuator

Model	A	B	C	D	E	F	G	H	I	J	K	□L	M	N	O	P	Q
NTE-02/03/05	113	160	102.5	63	49	83	77	72	60	80	68	12	12	63	70	8-M6	4-M8
NTE-10	121	196	126	71	50	98	98	86	70	98	82	15	12	----	70	----	8-M8
NTE-20/40	158	255	148	95	63	121	134	106	84	135	118	23	23	----	----	4-M8	4-M10
NTE-60	158	255	148	95	63	121	134	106	84	135	118	25	23	----	----	4-M8	4-M10
NTE-100/160/250	207	310	162	120	87	148	162	140	116	160	136	30	26	----	----	4-M10	4-M12
NTE-400/600	266	439	179	155	111	189	250	212	179.6	212	179.6	52	30	----	----	8-M20	8-M20

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

Nutork Corp. supply the following product range:

	NK series rack & pinion type (CE-ATEX certified and PED compliant) 14 models, the output torque from 9Nm(80in.lbs) to 3,920Nm(34,660in.lbs) at 6 bar air supply. ISO5211/DIN3337 for valve connection, VDI/VDE 3845(Namur) standard connection for solenoid valve and shaft top end(limit switchbox or E/P positioner), +/-5 degree stroke adjustment. 25~30um standard hard anodized treatment on actuator body and over 120um epoxy coated on end caps which meet ASTM B117 qualification(salt spread test over 1,000 hours and no corrosion). PTFE, Polyester, Nickel, Ceramic and Epoxy coated are available on request.
	NSF series scotch yoke type pneumatic and hydraulic actuators (CE-ATEX certified and PED compliant) The output torque from 978Nm(8,656in.lbs) to 226,200Nm (2,001,870in.lbs) at 6 bar air supply. Anti-corrosion painting on outer body and cylinder as standard. VDI/VDE 3845(Namur) standard connection for shaft top end(limit switchbox or E/P positioner), +/-10 degree stroke adjustment. ISO5211 standard for valve connection. PTFE coated on inner cylinder surface. Hydraulic manual override is available for big size actuator.
	NTE series electric actuator, CE approval 13 models and the output torque from 18Nm(159in.lbs) to 6000Nm(53,106in.lbs), compact design, die-casting aluminum alloy housing, alloy steel with heat treatment gear driving unit, integral wormgear & drive shaft, 30% duty rating, detachable crank handle, ISO5211(option), IP67 enclosure.IP68 for option.
	NTE-02L Quarter Turn Electric Actuator Output torque 25Nm(222in.lbs),operation time 10Sec;voltage 24VAC,110VAC & 220VAC for option,ABS housing, 30% duty rating,IP65 enclosure.
	NTQ electric actuator, CE approval(IP67 & EExdIIBT4 enclosure) 13 models, the output torque from 100Nm(885in.lbs) to 6,000Nm(53,106in.lbs), de-clutchable manual override, 2xSPDT each for open & close, torque switch: 1xSPDT each for open & close. space heater, self-lock, IP67 & EExdIIBT4 enclosure.
	The fully range accessories(Limit Switchbox, Solenoid Valve, Declutchable Manual Override, Air Filter regulator, E/P Positioner ---etc).

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