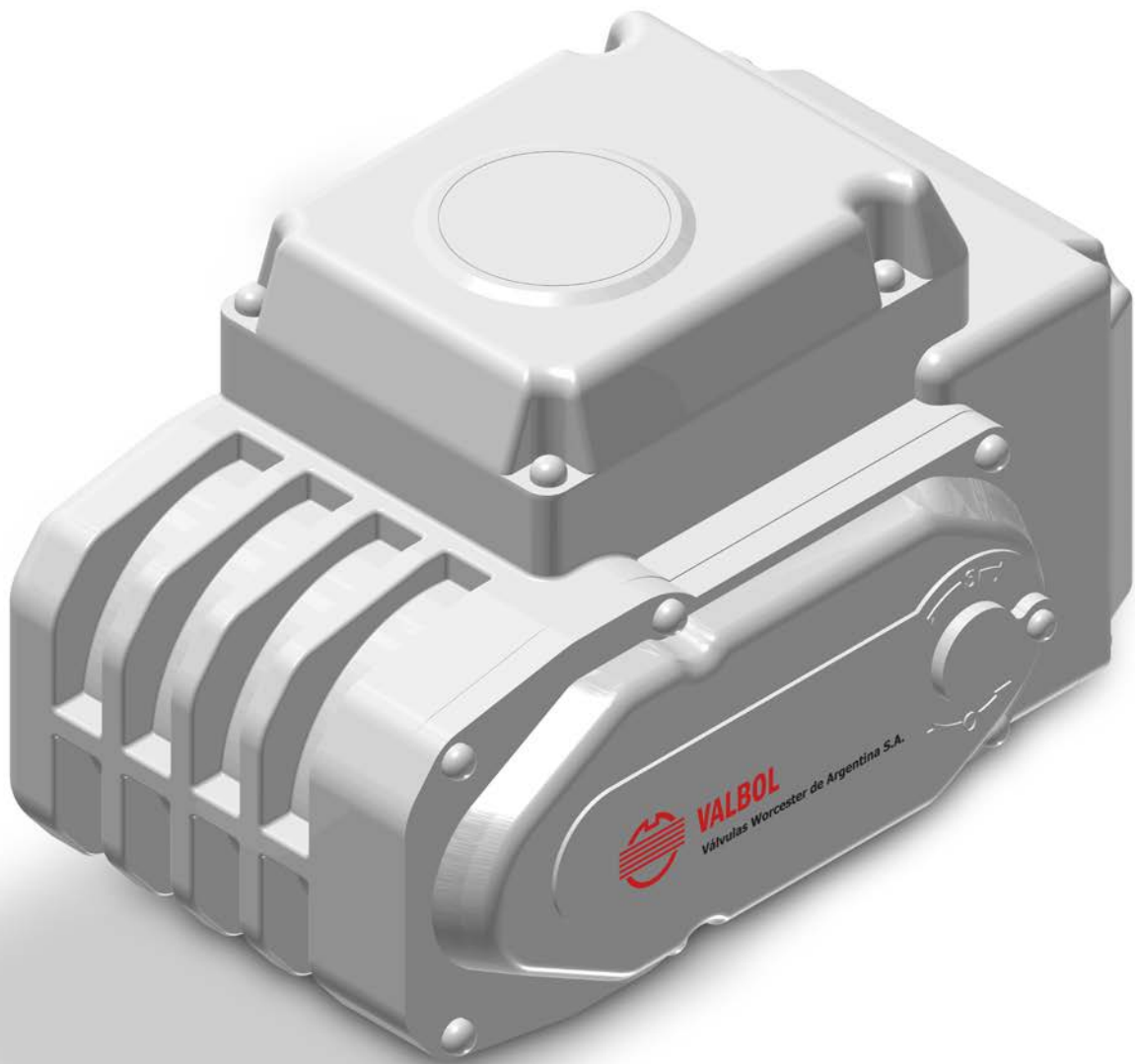


ELECTRIC ACTUATOR / QUARTER TURN



**Approved by:**  
Low Voltage Directive 2006/95/EC  
Machinery Directive 2006/42/EC  
Electromagnetic Compatibility  
Directive 2004/108/EC



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. NTE series electric actuators are designed for such working requirement.



Gear driving unit is made of alloy steel with heat treatment featuring high strength, excellent wear resistance and long term fatigue load impact.



The crank handle is designed as detachable to minimize the dimension of the actuator.



The integral construction of the wormgear and drive shaft provides long term dependable operation with high output torque.



The captive cover bolt prevents bolt from dropping when cover is opened.



The stainless steel stroke bolt and cam provide 0 - 90° adjustability.



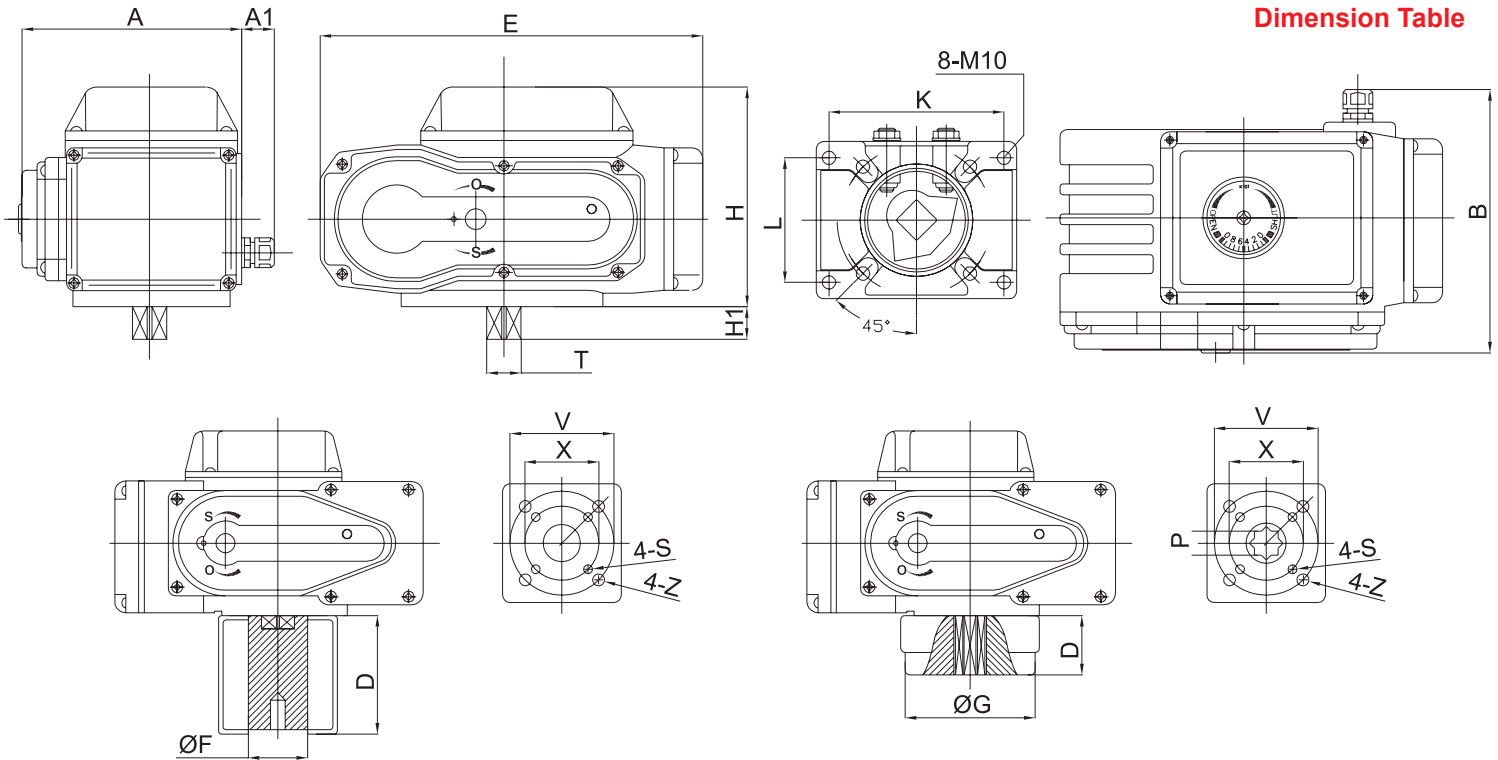
The tempered glass visual position indicator provides anti-aging, temperature resistance and anti-deformation.



The epoxy encapsulated control servo unit provides heat insulation, moisture and dust proofing, thus suitable for various industrial process requirements.



### Dimension Table



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-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

#### Output Torque

##### A. Output Torque / Operation Time

- Code:02S,(18Nm)-12 sec.
- Code:02L,(22Nm)-15 sec.
- Code:03,(30Nm)-20 sec.
- Code:05,(50Nm)-30 sec.
- Code:10,(100Nm)-30 sec.
- Code:20,(200Nm)-30 sec.
- Code:40,(400Nm)-30 sec.
- Code:60,(600Nm)- 30 sec.
- Code:100,(1000Nm)-50 sec.
- Code:160,(1600Nm)-88 sec.
- Code:200,(2000Nm)-100 sec.
- Code:400,(4000Nm)-100 sec.
- Code:600,(6000Nm)-150 sec.
- Code: XX (the other output Torque & Operation Time)

##### Note:

- The quick operation speed is available upon request.

#### Control Type

##### B. Type(Control function)

- Code A: Standard
- Code B: 1xSPST(NO) micro switch for each at open & close
- Code B1: 1xSPDT micro switch for each at open & close
- Code C: 1KΩ potentiometer
- Code D: 1xSPST, NO micro-switch+ 1KΩ potentiometer
- Code E: modulating control (input/output signal:4-20mADC)
- Code F: position transmitter (output signal:4-20mADC)

##### Note:

- 02S only available in type A & B control function
- 02L only available Type B control function.

#### Power

##### C. Power Voltage:

- Code A:24VDC
- Code B:24VAC
- Code C:110~120VAC
- Code D:220~240VAC
- Code E:380VAC
- Code F:440VAC
- Code X: others

##### Note:

- 02S only available in 24/120/240VAC, 24VDC  
02L only available 240VAC

#### Accessories

##### D. Accessories:

- Code: H - Heater (02S is not available)

#### Enclosure

##### E. Enclosure

- Code:IP67, IP67 enclosure(standard).
- Code IP68: IP68 enclosure.



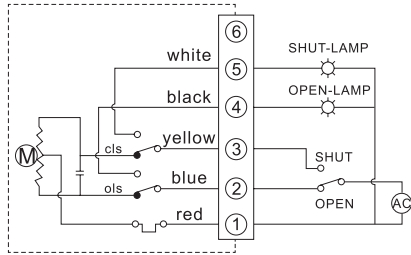
### NTE SERIES

MODEL		NTE-03	NTE-05	NTE-10	NTE-20	NTE-40	NTE-60	NTE-100	NTE-160	NTE-200	NTE-400	NTE-600
<b>Output Torque (Nm)</b>		30	15/30/50	50/60/ 100	80/100/ 150/200	150/250/ 300/400	600	300/800/ 1000	1600	2000	4000	6000
<b>Operation Speed (Sec.)@0-90°/ 50Hz</b>		20	10/20/ 30(std.)	15/20/ 30(std.)	9/15/20/ 30(std.)	9/15/20/ 30(std.)	30	30 15/30/ 50(std.)	88	100	100	150
<b>Operation Angel (Max.)</b>		0-360°	0-360°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°
<b>Valve Conn./ ISO5211</b>		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			Bare Shaft	
<b>Power (Watts)</b>	<b>DC motor</b>	20	20	40	40	90	90	-	-	-	-	-
	<b>AC motor</b>	10	10	23	40	90	90	100	100	100	200	200
<b>Rated Current 50HZ(A)</b>	<b>24VDC</b>	2	2	2.4	8.5	11.5	11.8	11.5	-	-	-	-
	<b>110VAC</b>	0.48	0.48	0.64	0.9	2	2.06	2.2	2.2	2.2	4.10	4.10
	<b>220VAC</b>	0.24	0.24	0.32	0.48	0.92	0.95	1.20	1.20	1.20	2.10	2.10
	<b>380VAC</b>	0.15	0.15	0.19	0.25	0.45	0.46	0.48	0.48	0.48	0.90	0.90
<b>Weight-(Kg)</b>		2.2	2.2	4	7	7.8	7.8	11.2	11.5	11.8	31	31
<b>Duty Cycle (ON/OFF)</b>		S2 : 35%,10min. ~ 30min.										
<b>Duty Cycle (Modulating)</b>		S4 : 30~50%, 300~1200 Start/Hour										
<b>Power Supply</b>		1 Phase:110/220VAC±10%@50/60Hz, 3 Phase:380/440VAC±10%@50/60Hz, 12VDC.24VDC/VAC										
<b>Stall Protection</b>		standard accessory , built-in , auto-reset type										
<b>Anti-Vibration</b>		XYZ 10g , 0.2~34Hz , 10 minutes										
<b>Ambient Humidity</b>		90%RH Max.(non-condensing)										
<b>Ambient Temperature</b>		-30°C ~ +60°C										
<b>Enclosure Rating</b>		IP67(standard), IP68(option)										
<b>Mounting Direction</b>		All Directions										
<b>Electrical Conduit</b>		M20×1.5 with cable gland for standard type(2 - M20×1.5 with cable gland for modulating type)										
<b>Manual Operation</b>		Detachable Crank Allen-Key (standard accessory)										
<b>Stopper</b>		In operation : limit switches at full & closed position ; manual operation:mechanical stopper										
<b>Housing Material</b>		Die-casting aluminum alloy										
<b>Various Option</b>		1. Type A standard type										
		2. Type B additional limit switches 2xSPST) or Type B1 additional limit switches(2xSPDT)										
		3. Type C potentiometer unit 1KΩ or 5KΩ)										
		4. Type D potentiometer unit 1KΩ or 5KΩ) with additional limit switches 2xSPST)										
		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. H : Space heater										
		8. Torque switches(2 units)										
		9. Various mounting brackets										

**TYPES**

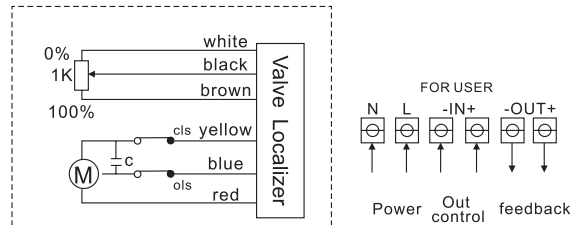
**Type A: Standard Type**

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



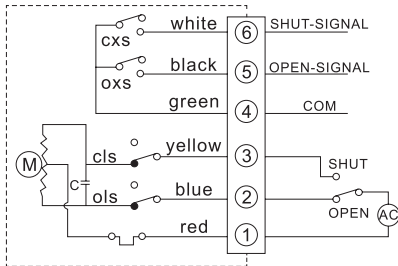
**Type E: Modulating Control**

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



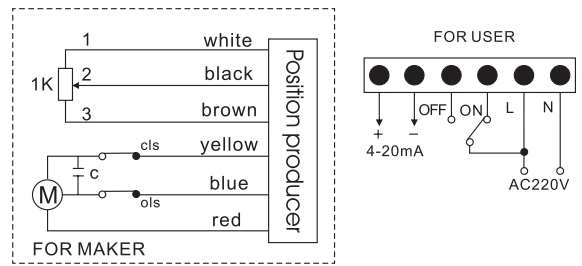
**Type B: 2xSPST(NO)**

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



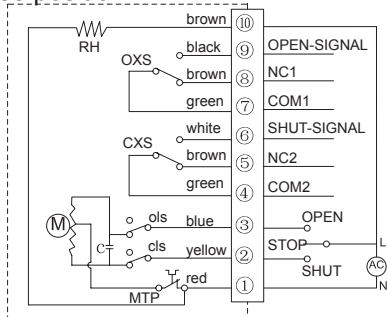
**Type F: R/I Converter**

Output Signal: 4-20mADC.



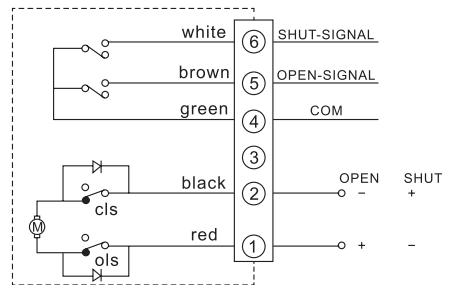
**Type B1: 2xSPDT(NO/NC)**

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



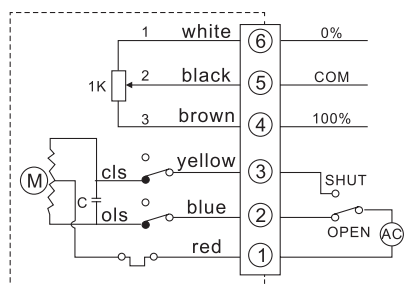
**DC Motor with 2xSPST(NO)**

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.

