# TKSERIES

QUARTER TURN ACTUATOR

## **Basic Type**



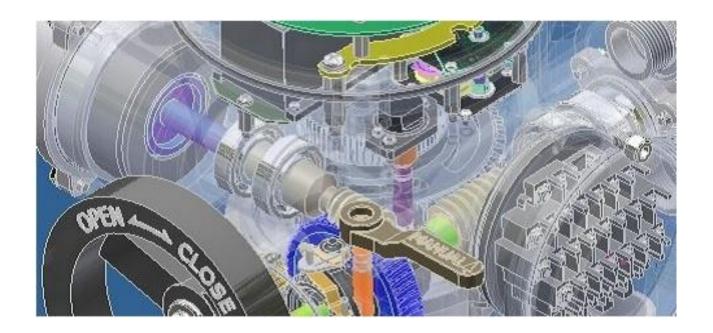






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## **Feature**

- **1. Light, Small, Simple** compact and corrosion resistant Aluminum ally enclosure.
- 2. Double sealed with O Ring to ensure IP68, 6 meter 48 hours.
- 3. Independent hand wheel shaft all side mounted.
- 4.Terminal Block with Fuse holder & spare fuse holder easy to maintain



## Construction

#### Motor

The squirrel cage induction motor with themostst embedded. Class F, workable within  $\pm 10\%$  of the rated voltage ,

Standard rating: 15minutes

**Gear reduction** Double gear reduction device. Easy to maintain .The major gears has been heat treatment . Power driven device assembled by worm gear.

#### **■**Enclosure

Water Proof IP68
Explosion Proof Exd II B+H2 T4

#### ■ Temperature

 $-25^{\circ}$ C ~+80°C For other temperature range refer to us.

#### Limit switch

Open: 1a1b\*1 Close: 1a1b\*1 AC250V 5A, DC125V0.4A (2a2b for option) set easily and fast by "-" screw driver. The position also can set between full open and full close travel procedures any position.

#### ■Torque switch

Open: 1a1b\*1 Close: 1a1b\*1 AC250V 5A, DC125V0.4A (2a2b for option) When the driving torque bigger then set value is applied to the output shaft of actuator.

#### ■Position indicator

Direct Shaft driving shows the value position in percentage.0--100%

#### **■**Terminal Block

Is separately double sealed with a series of O-Ring to ensure the integrity of the components inside at the time the cover is removed for site wiring.

#### Handwheel

The side-mounted hand wheel is for a device that can be operated manually when the power is lost .

**Change level** change lever operation easily shift the power operation to manual operation even when the motor is running break between first gear reduction and second worm reduction transmitting. Auto reset when motor starting.

#### Thrust Unit

bore with key for Non-Rising Valve.

#### SPECIFICATION--STANDARD

■1. Power Source: 60Hz(50Hz)
Single phase 110/220V or 3 Phase 200, 220/380, 400,440, 460, 480, 600V ∘

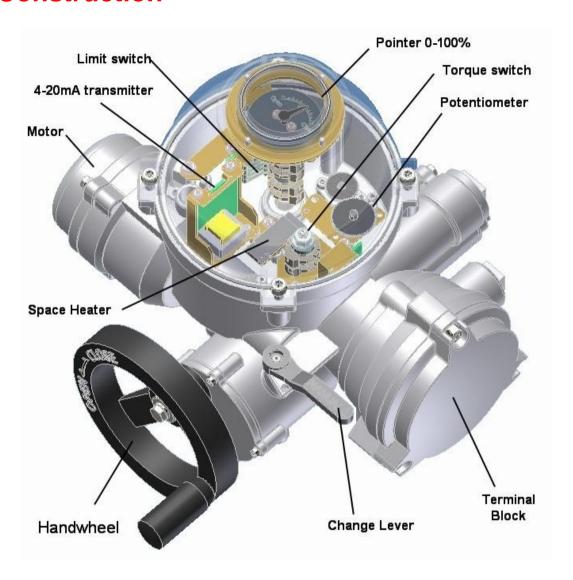
■2. Motor: Class F with High Torque/Low Inertial Motor is used. Thoro capsulation non-venting construct (TENV) .Over 60 times per hour inch operation at the rated value.

#### ■3. Terminal Unit

- ★ Double sealed compartment.
- ★ with fuse holder & spare fuse holder easy to maintain
- ★Control: 30 Points with M4 screw .rating AC250V 5A ∘
- ★ Power: 3 Points with M4 screw. rating AC660V 30A ∘
  - ★Earth: 1Point with M4 screw.



## Construction





**TK System Drive Bush** 



## SPECIFICATION STANDARD

**4. Space Heater:** Space heater of thermister type

(PTC-5) embedded inside the switch unit .

Capacity: 5W~40W 100-240V Constant temperature expend 5W.

Resistance: 0.3~1.8kΩ ∘

**■5.Manual Operation:** Auto-return is standard. Power to manual operation by change lever shifting ∘

■6.Conduit entry: 1"NPT\*3 other required refer to us ∘

**■7.Standard Coat:** Vinyl resin wash primer plus polyurethane resin paint for final coat ∘

**8.Vibration:** Max applicable levels :In the frequency range of 2mm 13.2~100Hz 0.7G 90 minutes • Shock:30G/11ms X.Y.Z with each 3 times •

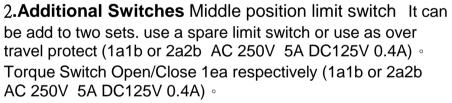
**9.Design Life:** Under designed operating conditions (usage conditions: Maximum set torque at the travel end and 70% of allowable torque at the middle position), the service life of the ON-OFF specification is 10,000 times.





#### **OPTION**

**1.Motor:** Class H insulation .Option rating 30minutes or with brake •



**3.Potentiometer** 500 $\Omega$  and 1K $\Omega$  available Max. Input voltage: 25V. Linearity 0.5%, Rated power consumption: 08w, temperature: -50  $^{\circ}$ C ~75 $^{\circ}$ C for other temperature refer to us  $^{\circ}$ 

**4.Transmitter** Input AC 110/220 ±10%, output DC 4~20mA,Accuracy ±0.5% FS,

Adjusting range: zero ±20% ,span ±20% arrester embedded.

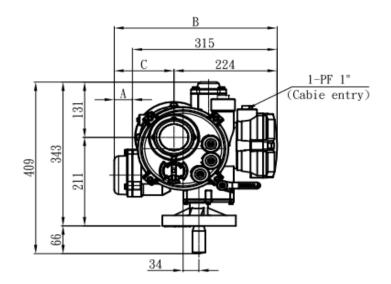
#### 5. Optional Painting

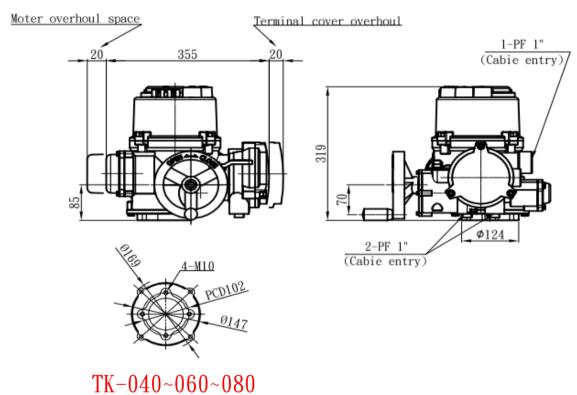
For the polluted area, extra coat, on top of the standard coat, may required refer to us.





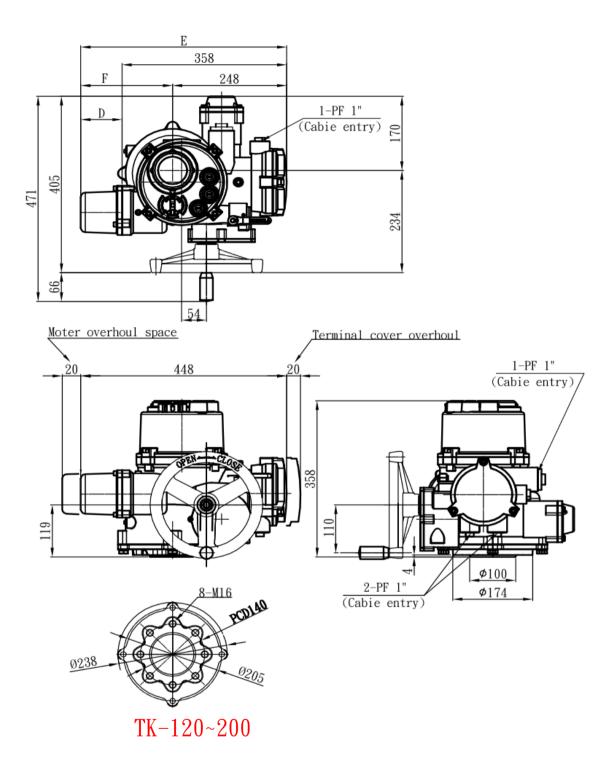
## **DIMENSION - TK040~060~080**





Model		A	В	С	
TKe-040	60w	4P	40	355	130
	00#	8P	60	375	150
TKe-060	90w	4P	60	375	150
176-000	30W	<b>8</b> P	85	400	175
TKe-080	120w -	4P	60	375	150
		8P	85	400	175

## **DIMENSION - TK120~200**



Model		D	E	F	
TKe-120	120w	4P 8P	60 85	418 443	170 195
TKe-200	200w	4P 8P	85 125	443 483	195 235

## **MECHNICAL DATA**

Model	TK-040	TK-060	TK-080	TK-120	TK-200	
Base ISO 5211	F10	F10	F10	F14	F14	
Motor(W)	60	90	120(400)	120(400)	200(400)	
Operating Time 60/50Hz(Option)	23/27(46/54)			32/38(64/76)		
Max Bores Diameter(mm)	42mm			60mm		
Worm Ratio	1/50*1/50	1/50*1/50	1/50*1/50	1/72*1/50	1/72*1/50	
Max output Torque (kg-m)	40	60	80	120	200	
Conduit Entires	3-PF 1"			3-PF 1"		
Handwheel turns	26.6			50		
Handwheel Diameter(mm)	160	160/245	245	245	245	
Weight(kg)	19.5	20	21	36	40	
Travel Angel	$90^{\circ} \pm 10^{\circ} \text{ or } 0 \sim 110^{\circ}$					



## PRODUCTS



TME SERIES
MULTITURN SMART TYPE



TMP SERIES
PENUMATIC MULTITURN TYPE



TM SERIES
MULTITURN TYPE



LTJD-W SERIES
DOUBLE SPINDLE TYPE



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