



i-Tork Controls design, produces and provide high quality actuators

Electric Actuator

# ITX0050 Explosion Proof

NEW



 **i-tork**<sup>®</sup>

<http://www.i-tork.com>

## Introduction

The new **ITX0050 Explosion Proof** from i-Tork Controls has been developed for a wide range of applications with many years of experience with ITQ explosion proof actuators used in various Valve Automation Field and to service reliable performance, long trouble free operation, more flexibility and maximized ability to integrate fully into sophisticated Explosion proof circumstances and hazardous area.



## Advantage (Why use i-Tork?)



## Product Features (What are different?)

- Over Torque limiting by PCB  
(To Prevent damage from excessive force)
- Over Torque warning can be checked on customer's PLC  
by sending signal from PCB
- Self-Locking Gear System
- Free Voltage (AC100~240V) with DC motor
- Space heater on PCB
- Power ON LED on the PCB
- Built-in type Modulating card
- ISO 5211 Mounting Flange Size F03/F04/F05  
(Option : F07 with adapter)
- Explosion proof : Ex d II C T4

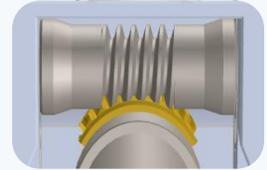
**Inner structure**



**PCB with terminal blocks.  
Torque limiting by PCB  
(Option : Modulating type -  
Sending signal to PLC and  
make the motor stop running)**



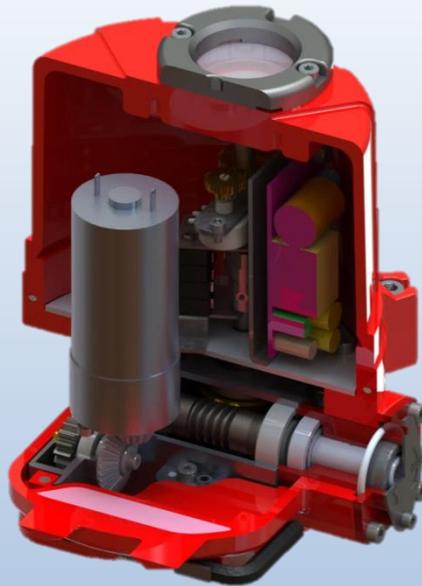
**Indicator**



**Worm Gear  
(Self-Locking)**



**Limit switches**



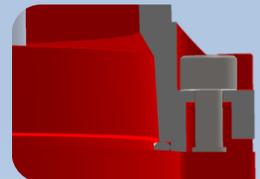
**Manual operation  
(with L-wrench)**



**Robust structures**



**ISO5211 Mounting Flange  
(F03/F04/F05 and F07 as an option)**

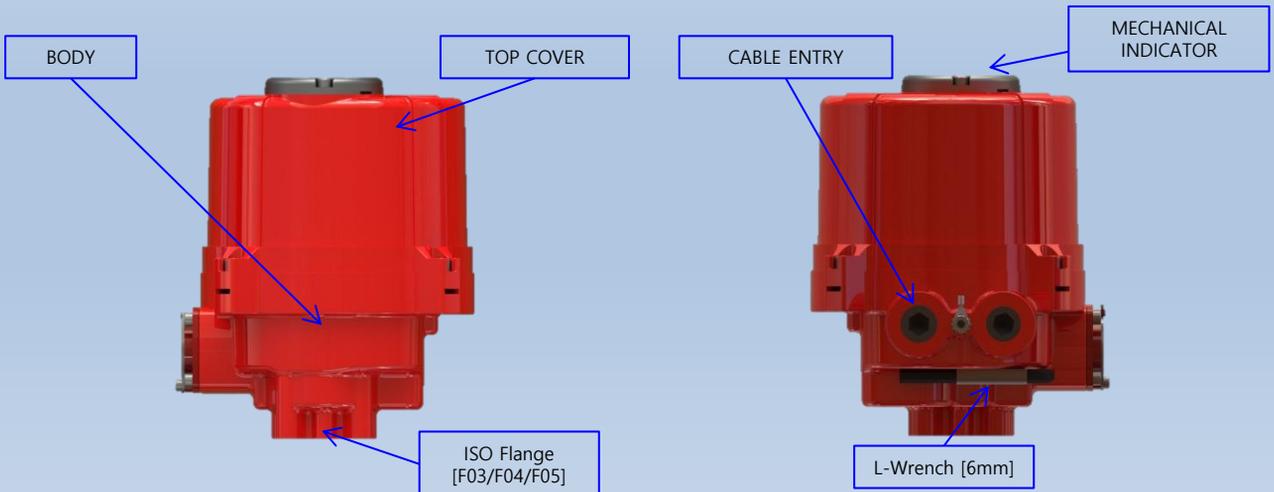


**Explosion-proof structures**

# ITX0050 Explosion Proof

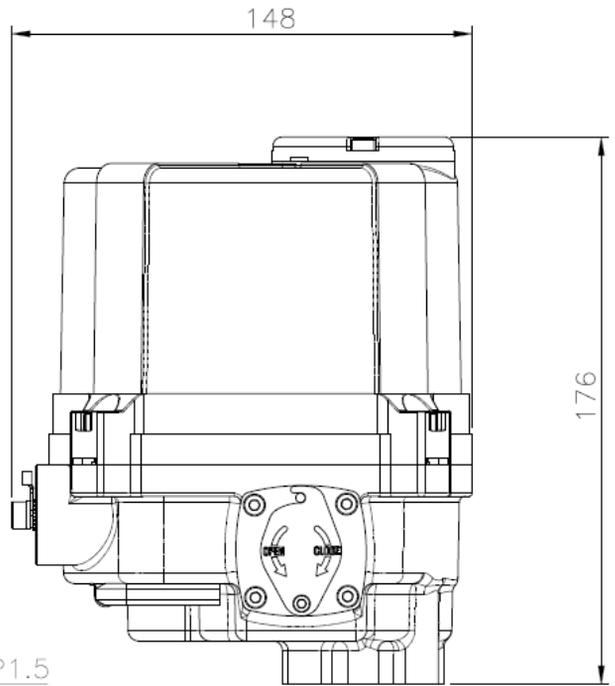
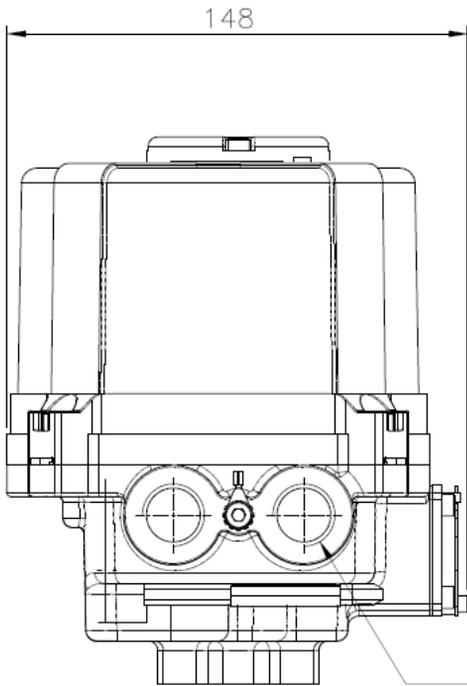
## Standard Specification

	ITX0050	REMARK
TORQUE (Nm)	50 Nm	
OPERATING SPEED (sec)	13 sec	
MAIN POWER SUPPLY	AC 100 ~ 240 V (Free Voltage) AC/DC 24V	
DUTY CYCLE (ON/OFF)	S2 : 30min	
DUTY CYCLE (MODULATING)	S4 : 50%	
CONTROL SIGNAL(MODULATING)	4~20mA (Option : 0~10VDC, 0~5VDC, 1~5VDC, 2~10VDC)	Input / Output
SPACE HEATER	4W	
LIMIT SWITCH	2ea Open, Close	
AUX. LIMIT SWITCH	2ea Open, Close	
AMBIENT TEMPERATURE	-20°C~+60°C	
AMBIENT HUMIDITY	90%RH MAX(NON-CONDENSING)	
ENCLOSURE	IP 67 (OPTION : IP68)	
EXPLOSION PROOF	Ex d II C T4	
CABLE ENTRY	2-M20x1.5 (Option: NPT ½, NPT ¾)	
WEIGHT(kg)	3	



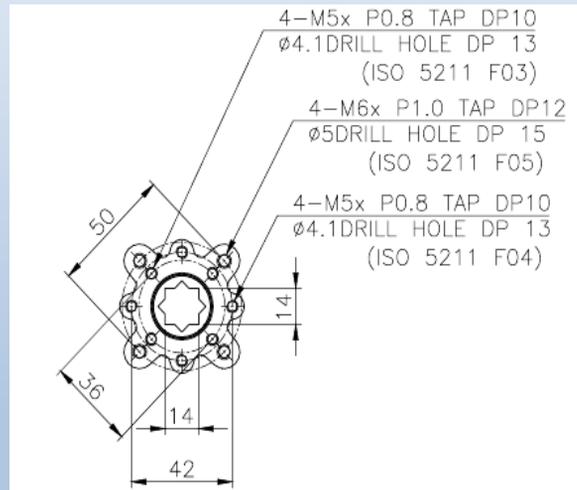
# ITX0050 Explosion Proof

Dimension (mm) [is subject to change]

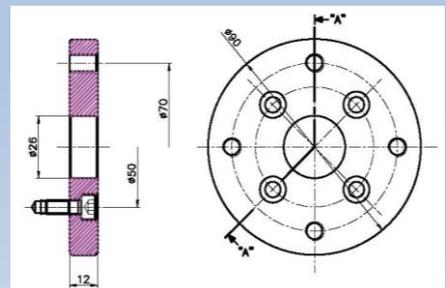


2-M20x P1.5  
(OPTION "2-NPT1/2)

**Standard**  
[F03/F04/F05]



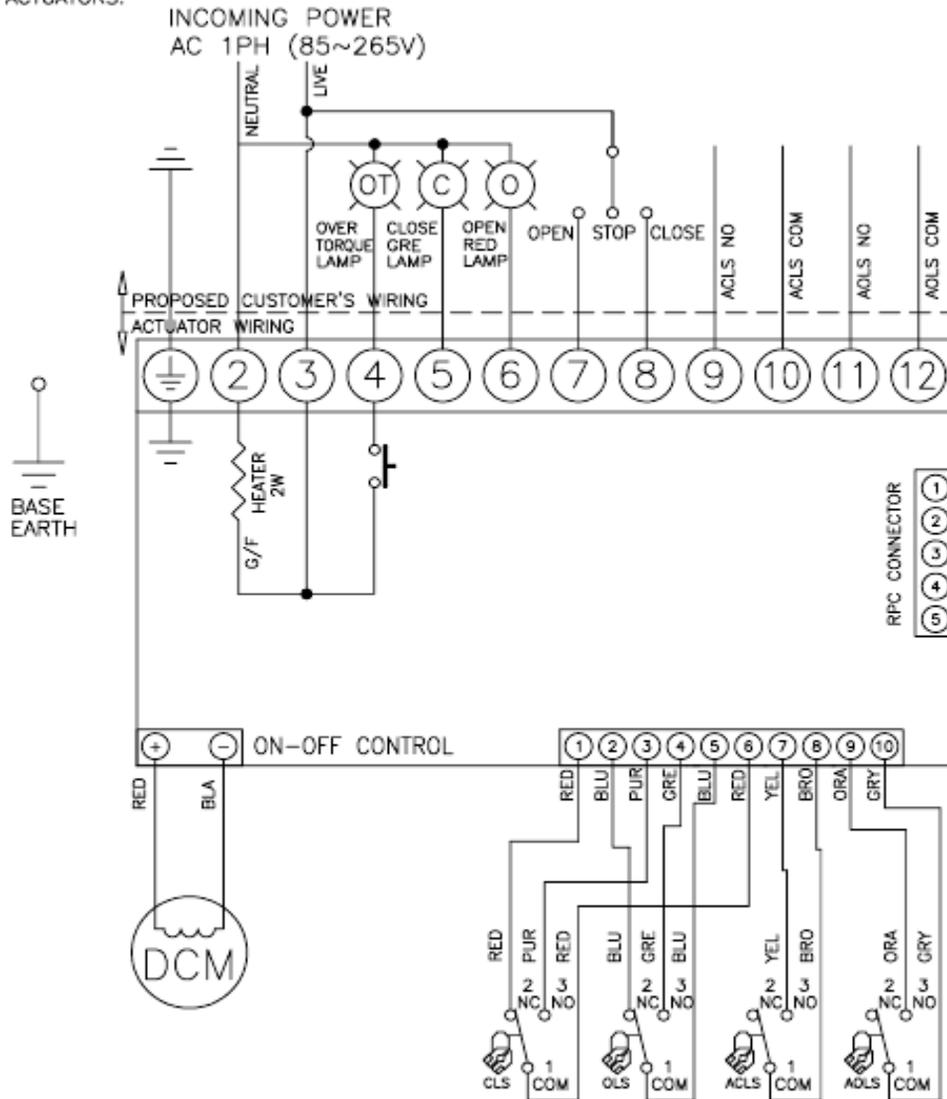
**Option**  
[F07]



## Wiring Diagram

CLS : CLOSE LIMIT SWITCH (250VAC 3A)  
 OLS : OPEN LIMIT SWITCH (250VAC 3A)  
 ACLS : AUX. CLOSE LIMIT SWITCH (250VAC 3A)  
 AOLS : AUX. OPEN LIMIT SWITCH (250VAC 3A)  
 \*EACH ACTUATOR SHOULD BE POWERED THROUGH ITS OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

LIMIT SWITCHES OPERATION			
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-3			
AOLS 1-3			

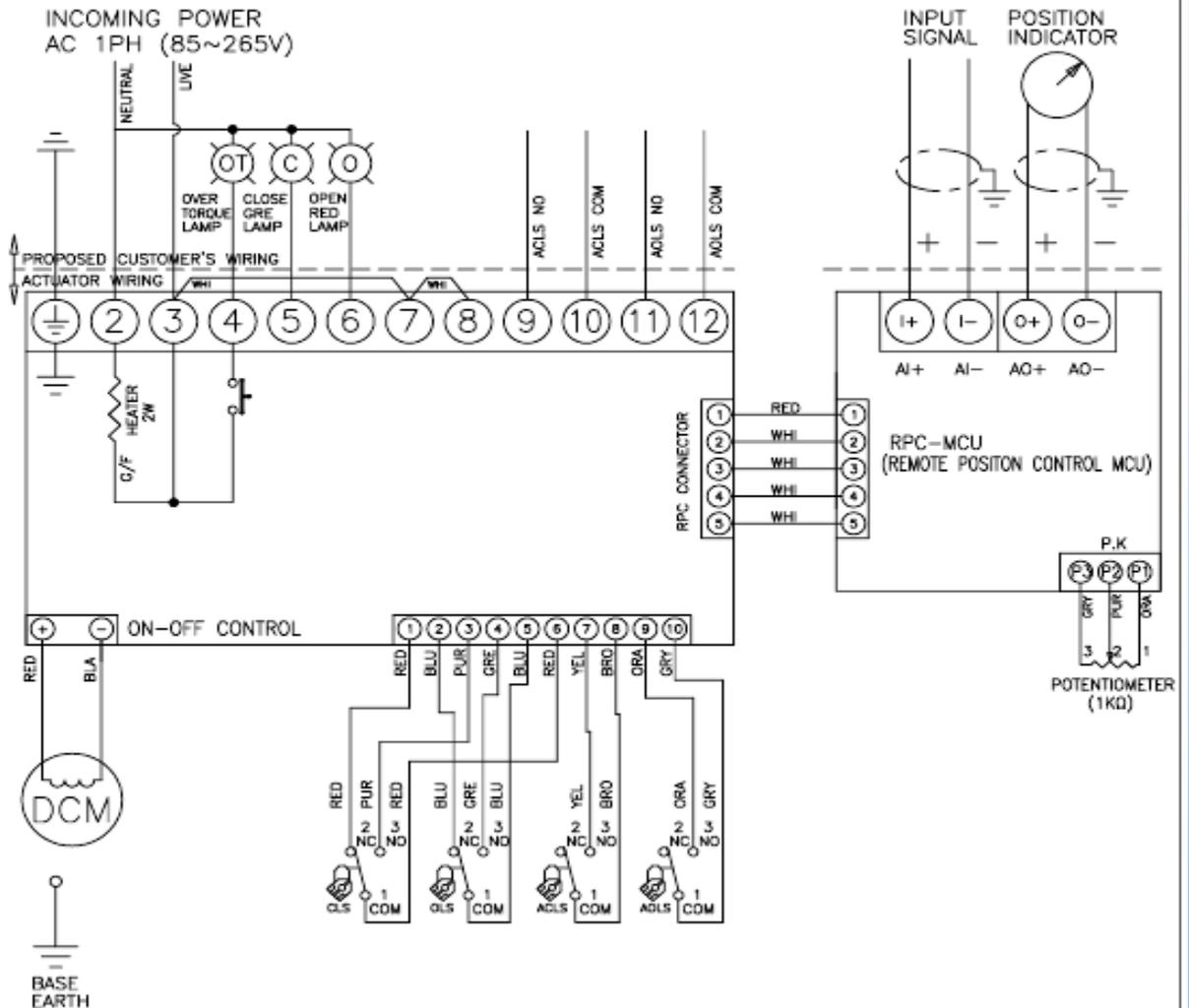


 <a href="http://www.i-tork.com">http://www.i-tork.com</a>		DRAWN	DESIGN	CHECKED	APPROVER
		K.S.PARK2			K.S.PARK2
PART NAME 1PH WIRING DIAGRAM		ISSU. DEPT.	DATE	SIZE	PROGRAM
		ITCDR	2024.12.26	A4	AUTOCAD LT 2010
OPTION NAME STANDARD		WIR No.			
		ITX0050-70000-B			
ITX-0050					
APP'L,FILE					

## Wiring Diagram

CLS : CLOSE LIMIT SWITCH (250VAC 3A)  
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LIMIT SWITCHES OPERATION			
SWITCH	CLOSE	INTERMEDIATE	OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-3			
AOLS 1-3			

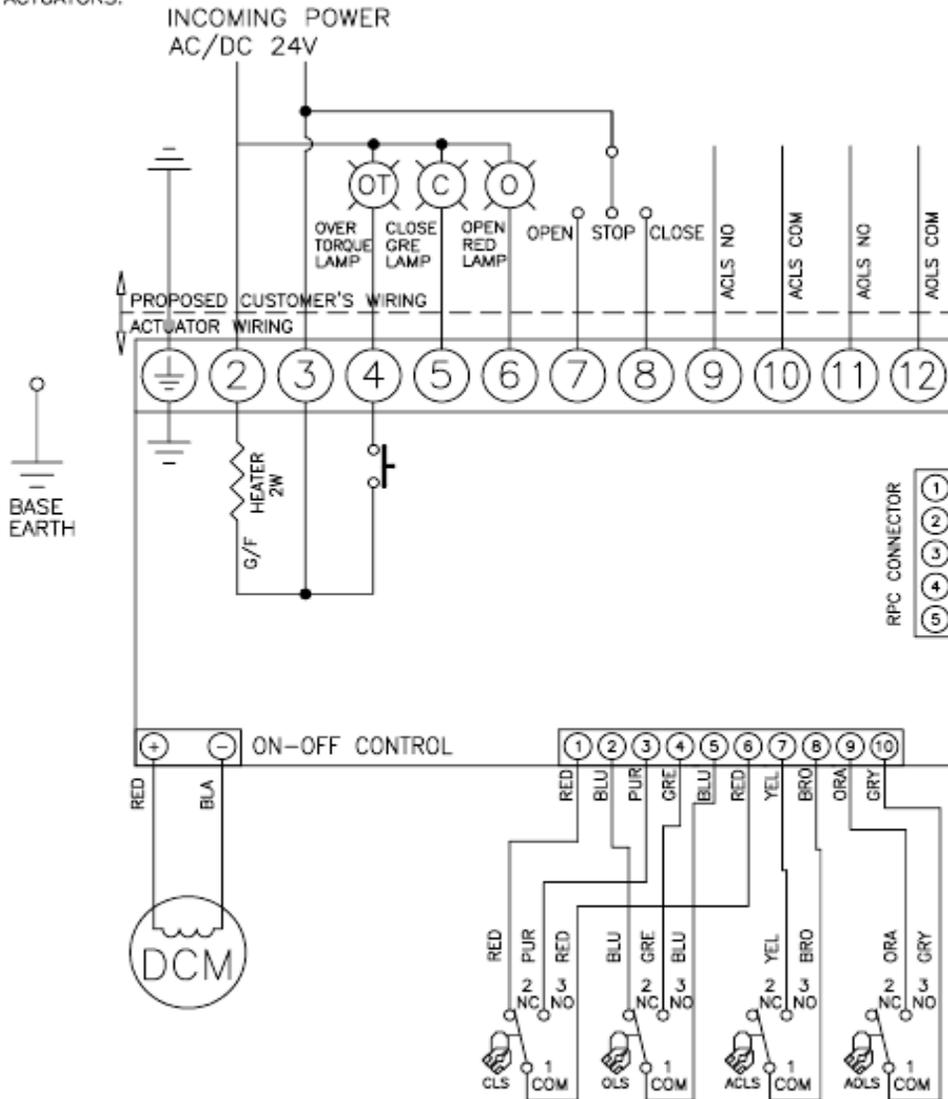


 <a href="http://www.i-tork.com">http://www.i-tork.com</a>		DRAWN	DESIGN	CHECKED	APPROVER
		K.S.PARK2			K.S.PARK2
PART NAME 1PH WIRING DIAGRAM		ISSU. DEPT.	DATE	SIZE	PROGRAM
		ITCDR	2024.12.26	A4	AUTOCAD LT 2010
OPTION NAME RPC		WIR No.			
		ITX0050-70500-B			
ITX-0050					
APP'L FILE					

## Wiring Diagram

CLS : CLOSE LIMIT SWITCH (250VAC 3A)  
 OLS : OPEN LIMIT SWITCH (250VAC 3A)  
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LIMIT SWITCHES OPERATION			
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-3			
AOLS 1-3			



 <a href="http://www.i-tork.com">http://www.i-tork.com</a>		DRAWN	DESIGN	CHECKED	APPROVER
		K.S.PARK2			K.S.PARK2
PART NAME AC/DC 24V WIRING DIAGRAM		ISSU. DEPT.	DATE	SIZE	PROGRAM
		ITCDR	2024.12.26	A4	AUTOCAD LT 2010
OPTION NAME STANDARD		WIR No.			
		ITX0050-90000-B			
ITX-0050					
APP'L FILE					

## **E - ITQ SERIES**

**Quarter Turn Actuators for butterfly and ball valves**



**ITQ0020**

**ITQ0040**

**ITX0050**

**ITQ0080**



**I-TORK CONTROLS  
PERFECT SOLUTION IN VALVE AUTOMATION!**

**i-Tork Controls Co., Ltd.**

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