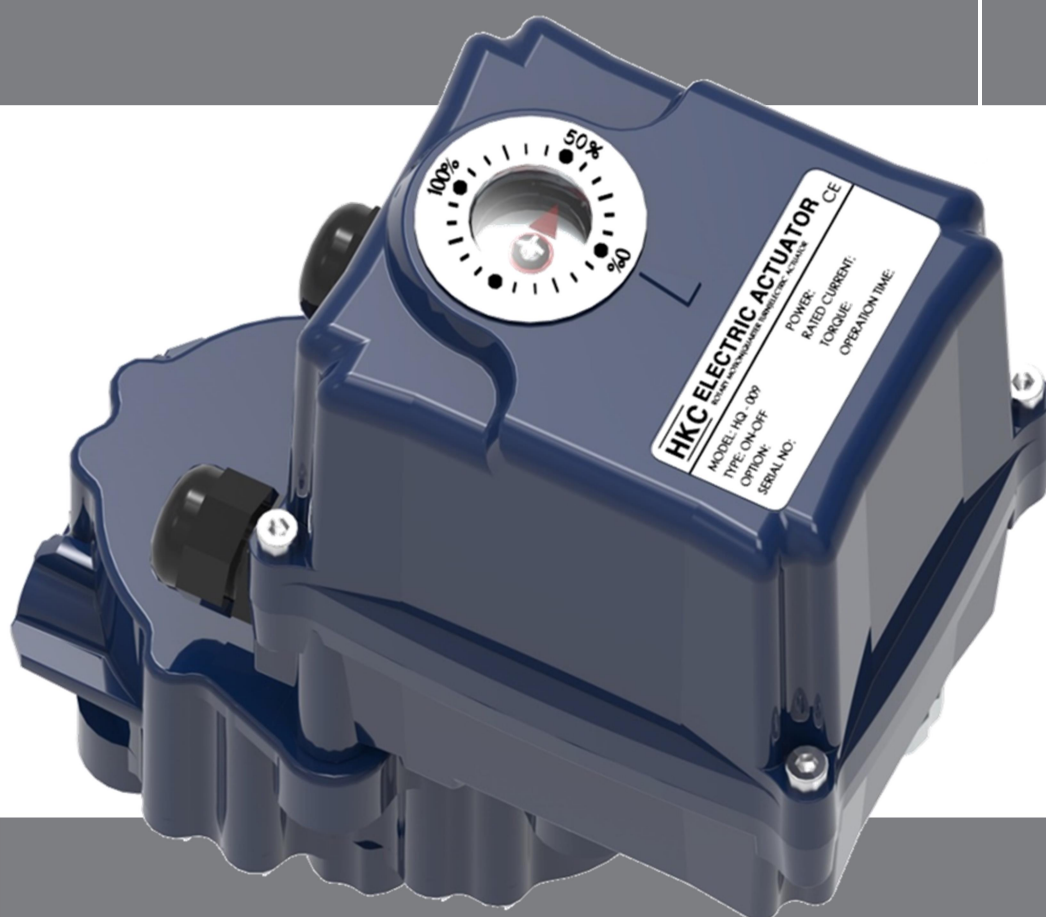


# Electric Part-turn Actuator

## HQ-006 & HQ-009



## Electric Part-turn Actuator

# HQ-006 & HQ-009

## Features

- ※ Aluminum die-cast, compact size, and light weight
- ※ Reversible motor with high torque and low current
- ※ Weatherproof IP67 or watertight IP68 option
- ※ Manual lever
- ※ Proportional Control Unit (PCU, modulating) option
- ※ Local Control Unit (LCU) option
- ※ MODBUS communication option

### ◆ Certificates and approvals

- |                                |                            |
|--------------------------------|----------------------------|
| ※ IECEx (Ex db IIB T4 Gb)      | ※ ABS type approval        |
| ※ ATEX (II 2G Ex db IIB T4 Gb) | ※ RMRS type approval       |
| ※ KCs (Ex d IIB T4 Gb)         | ※ Turk Loydu type approval |
| ※ CCC (Ex d IIB T4 Gb)         | ※ RINA type approval       |
| ※ SIL 2/3                      | ※ USCG test approval       |



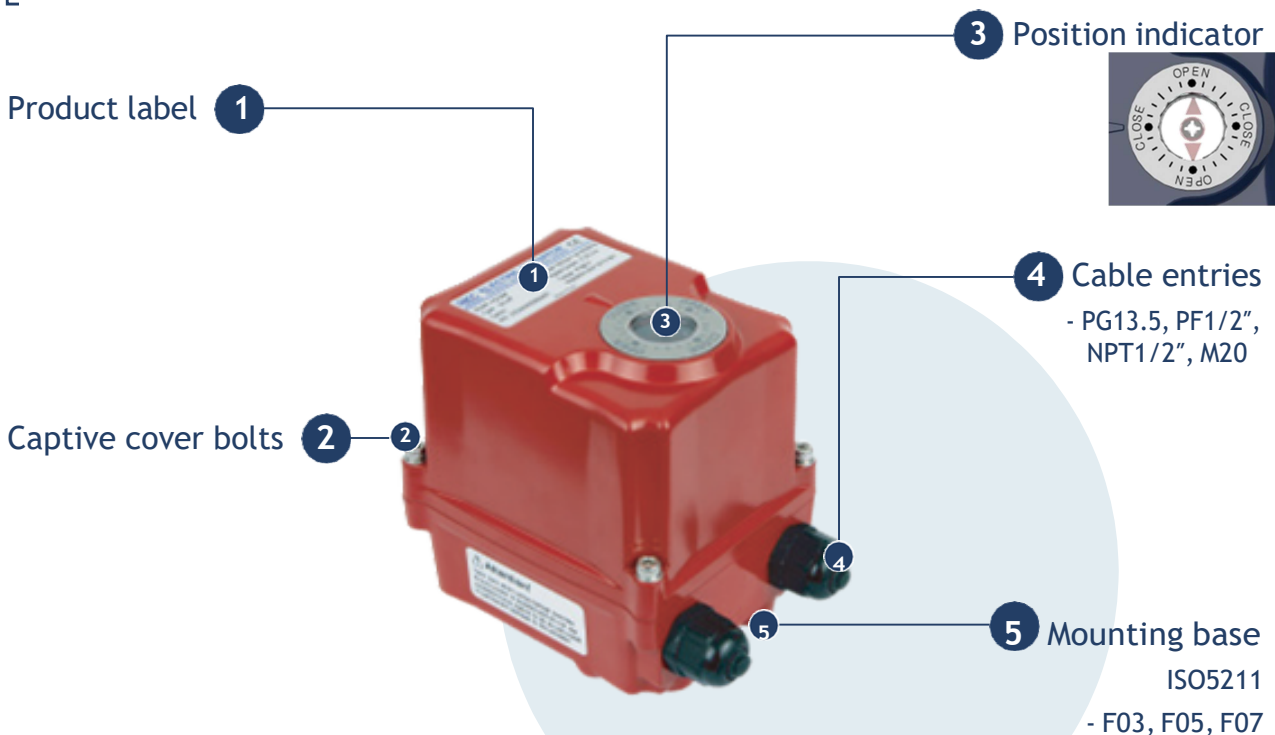
Explosion proof



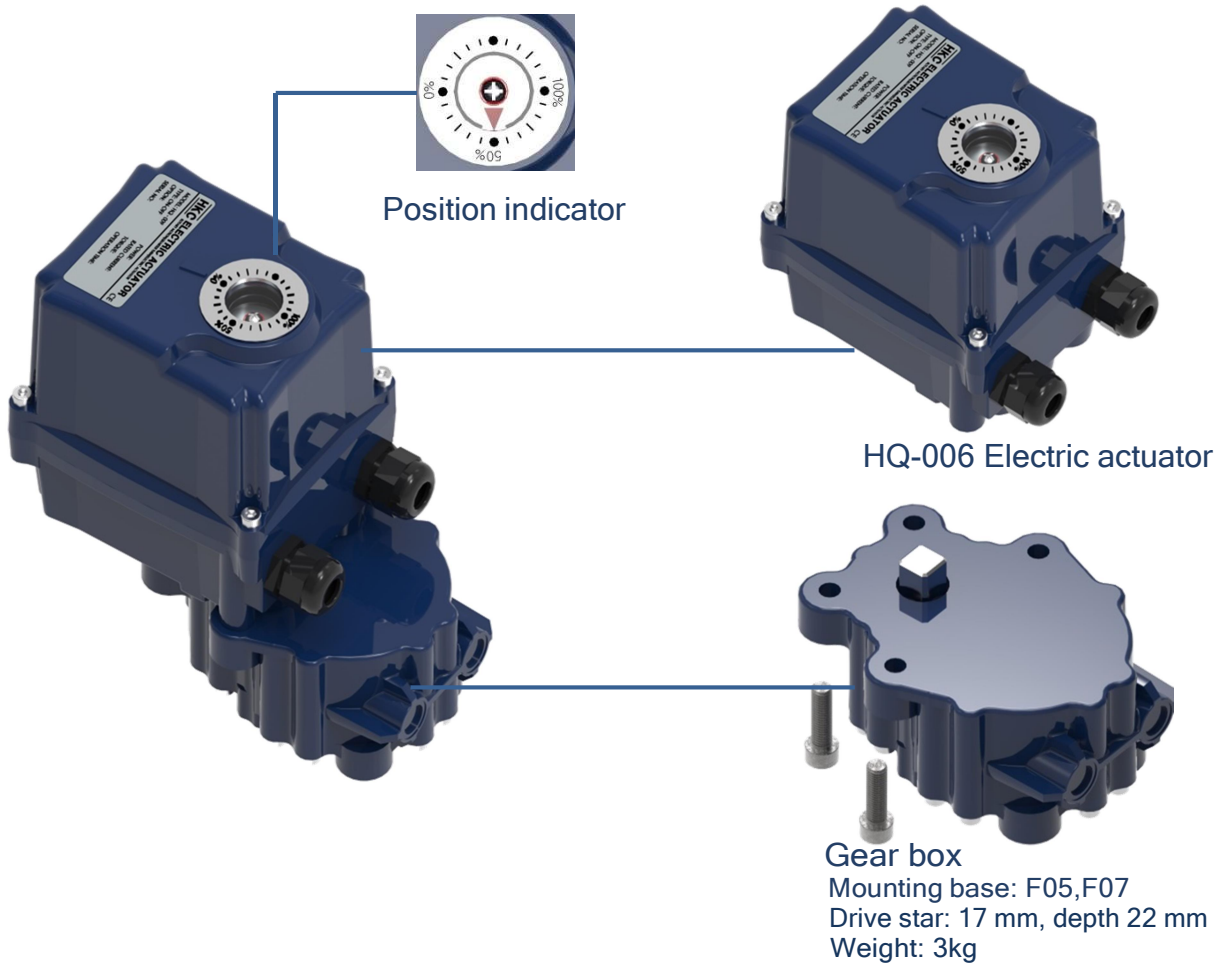
Modulation



## HQ-006 Electric Part-turn Actuator



# HQ-009 Electric Part-turn Actuator



## Specification

### ◆ HQ-006 Standard Specification

Enclosure	Weatherproof enclosure IP67		
	High grade aluminum alloy, chromate treated twice & polyester powder coated		
Max. torque output	60 Nm		
Power supply	1-Phase: 110/220 V ac, 50/60 Hz, ±10%	Rated current	1-phase 110 V ac: 0.4 A
			1-phase 220 V ac: 0.2 A
Duty cycle (on-off)	S2 30 min (room temp., average load of 50% of maximum torque)	Travel angle	0 - 90 °, 120 °, 135 °, 180 °, 270 °, 340 °, etc.
Operating time	12 s (60 Hz), 14 s (50 Hz)	Limit switches	4 x SPDT (5 A 250 V ac)
Cable entry	2 x PG13.5, 2 x PF1/2", 2 x NPT1/2", 2 x M20	Ambient temperature	-20 to +70 °C
Weight	3 kg	Lubrication	Grease moly (EP type)
		Space heater	2 W (110/220 V ac), anti-condensation
No. of handle turns	8		
Flange size (ISO 5211)	F03, F05, F07 / star 14 mm (please see dimensional drawing below)		
Coating (color)	<span style="color: red;">●</span> Red (RAL 3001), <span style="color: blue;">●</span> Blue (RAL 5005), <span style="color: yellow;">●</span> Yellow (RAL 1033), <span style="color: grey;">●</span> Grey (RAL 7046), <span style="color: lightgrey;">●</span> Light grey (RAL 7035), <span style="color: green;">●</span> Green (RAL 6034)		

## ◆ HQ-009 Standard Specification

Enclosure	Weatherproof enclosure IP67		
	High grade aluminum alloy, chromate treated twice & polyester powder coated		
Max. torque output	90 Nm		
Power supply	1-Phase: 110/220 V ac, 50/60 Hz, ±10%	Rated current	1-phase 110 V ac: 0.4 A
			1-phase 220 V ac: 0.2 A
Duty cycle (on-off)	S2 30 min (room temp., average load of 50% of maximum torque)	Travel angle	0 - 90 °, 120 °, 135 ° etc.
Operating time	24 s (60 Hz), 28 s (50 Hz)	Limit switches	4 x SPDT (5 A 250 V ac)
Cable entry	2 x PG13.5, 2 x PF1/2", 2 x NPT1/2", 2 x M20	Ambient temperature	-20 to +70 °C
Weight	6 kg	Lubrication	Grease moly (EP type)
		Space heater	2 W (110/220 V ac), anti-condensation
No. of handle turns	16		
Flange size (ISO 5211)	F05, F07 / star 17 mm (please see dimensional drawing below)		
Coating (color)	<span style="color:red">●</span> Red (RAL 3001), <span style="color:blue">●</span> Blue (RAL 5005), <span style="color:yellow">●</span> Yellow (RAL 1033), <span style="color:grey">●</span> Grey (RAL 7046), <span style="color:lightgrey">●</span> Light grey (RAL 7035), <span style="color:green">●</span> Green (RAL 6034)		

## ◆ HQ-006 and HQ-009 Optional Specification

Enclosure rating	WTA Watertight enclosure actuator (IP68 10 m 72 hr)		
Power supply	DC 24 V dc	Rated current	24 V dc: 1.7 A
	ADCM 24 V ac/dc		24 V ac/dc: 1.7 A
Control	Control box is attached : weatherproof enclosure IP67, weight: 4.2 kg, cable entry: 2 x PG13.5		
	PCU Proportional Control Unit (modulating), input/output: 0-10 V dc or 4-20 mA dc (duty cycle) S4 40%, 800-1,200 starts/hour (room temperature, average load of 50% of maximum force)		
	CPT Current Position Transmitter output, output: 4-20 mA dc		
	PIU Potentiometer unit (0-1 kΩ)		
	MODBUS modules		
Local control	LCU-D Local control unit (remote/local & open/stop/close)		
	LCU-Z Local control unit (remote/local & open/stop/close) with LED lamp indicators		
Coating (color)	<span style="color:red">●</span> Other colors , C5 coating (for corrosive environment)		

## ◆ HQ-006 Explosion Proof Specification

Enclosure	Weatherproof enclosure IP67		
	High grade aluminum alloy, chromate treated twice & polyester powder coated		
Max. torque output	60 Nm		
Power supply	1-Phase: 110/220 V ac, 50/60 Hz, ±10%	Rated current	1-phase 110 V ac: 0.4 A
			1-phase 220 V ac: 0.2 A
Duty cycle (on-off)	S2 30 min (room temp., average load of 50% of maximum torque)	Travel angle	0 - 90 °, 120 °, 135 °, 180 °, 270 °, 340 °, etc.
Operating time	14 s (50 Hz), 12 s (60 Hz)	Limit switches	4 x SPDT (5 A 250 V ac)
Cable entry	2 x NPT1/2", 2 x M20	Ambient temperature	-20 to +60 °C
Weight	4.2 kg	Lubrication	Grease moly (EP type)
		Space heater	2 W (110/220 V ac), anti-condensation
No. of handle turns	8		
Flange size (ISO 5211)	F04, F05, F07 / star 14 mm (please see dimensional drawing below)		
Coating (color)	<span style="color:red">●</span> Red (RAL 3001), <span style="color:blue">●</span> Blue (RAL 5005), <span style="color:yellow">●</span> Yellow (RAL 1033), <span style="color:grey">●</span> Grey (RAL 7046), <span style="color:lightgrey">●</span> Light grey (RAL 7035), <span style="color:green">●</span> Green (RAL 6034)		

## ◆ HQ-006 and HQ-009 Explosion Proof Optional Specification

Enclosure rating	WTA Watertight enclosure actuator (IP68 10 m 72 hr)		
Power supply	DC 24 V dc	Rated current	24 V dc: 1.7 A
	ADCM 24 V ac/dc		24 V ac/dc: 1.7 A
Coating (color)	<span style="color:red">●</span> Other colors , C5 coating (for corrosive environment)		

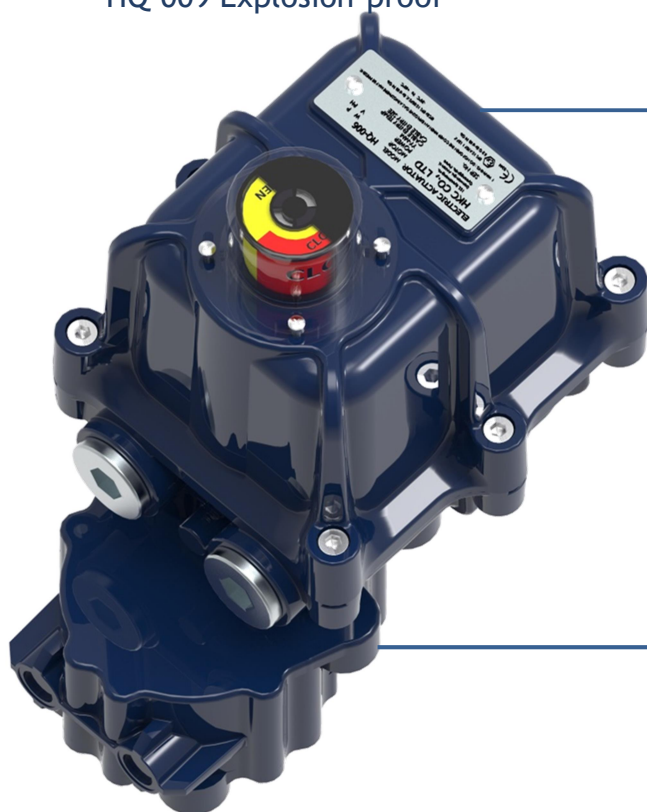
## ◆ HQ-009 Explosion Proof Specification

Enclosure	Weatherproof enclosure IP67		
	High grade aluminum alloy, chromate treated twice & polyester powder coated		
Max. torque output	90 Nm		
Power supply	1-Phase: 110/220 V ac, 50/60 Hz, ±10%	Rated current	1-phase 110 V ac: 0.4 A
			1-phase 220 V ac: 0.2 A
Duty cycle (on-off)	S2 30 min (room temp., average load of 50% of maximum torque)	Travel angle	0 - 90 °, 120 °, 135 °, etc.
Operating time	28s (50 Hz), 24 s (60 Hz)		Limit switches
Cable entry	2 x NPT1/2", 2 x M20	Ambient temperature	-20 to +60 °C
Weight	7.2 kg	Lubrication	Grease moly (EP type)
		Space heater	2 W (110/220 V ac), anti-condensation
No. of handle turns	16		
Flange size (ISO 5211)	F05, F07 / star 17mm (please see dimensional drawing below)		
Coating (color)	◆ Red (RAL 3001), □ Blue (RAL 5005), □ Yellow (RAL 1033), □ Grey (RAL 7046), □ Light grey (RAL 7035), ◆ Green (RAL 6034)		

### HQ-006 Explosion-proof



### HQ-009 Explosion-proof



HQ-006 Explosion-proof



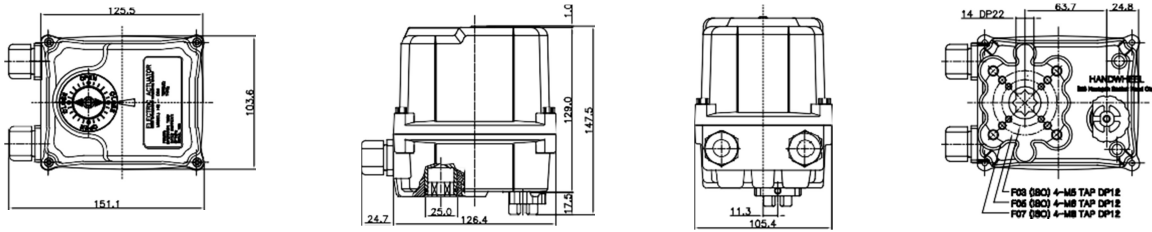
**Gear box**  
 Mounting base: F05, F07  
 Drive star: 17 mm, depth 22 mm  
 Weight: 3kg

\*Explosion Proof certifications are under preparation for the HQ-009.

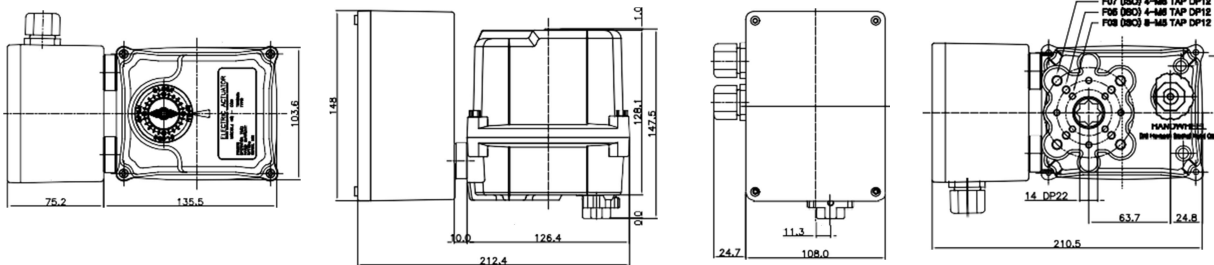
# HQ006- Dimensional Drawing

Standard

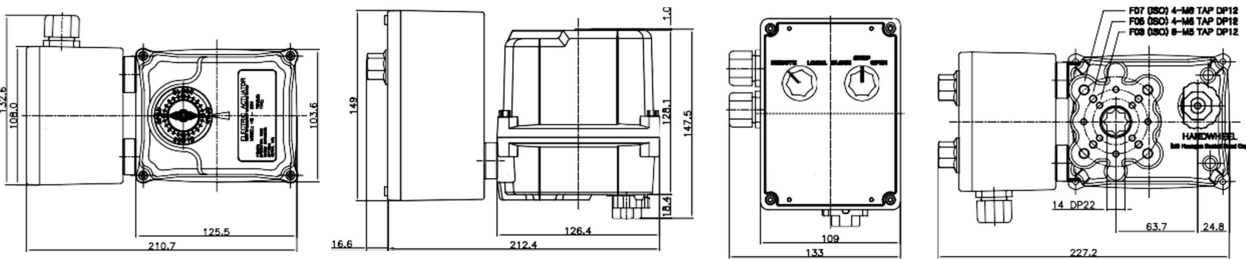
Unit: mm



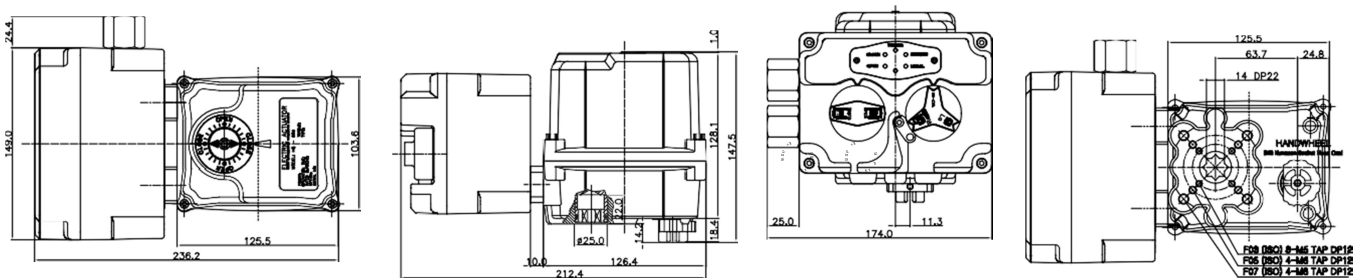
## Control Box (PCU, CPT, PIU)



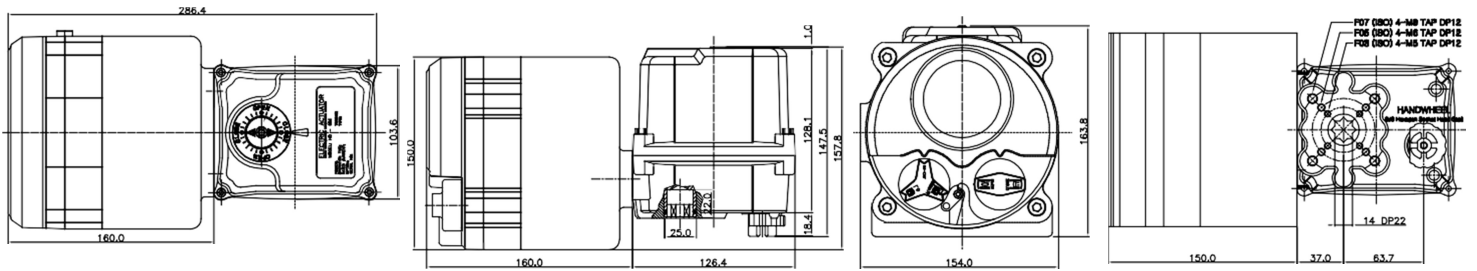
## Local Control Unit-D: LCU-D



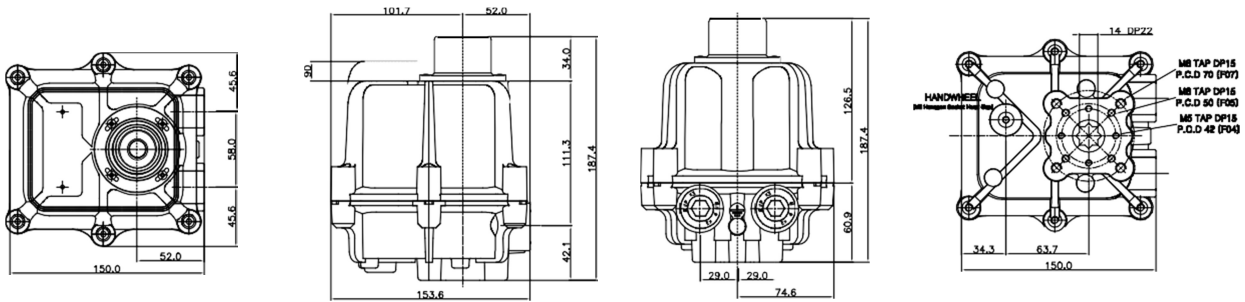
## Local Control Unit-Z: LCU-Z



## Local Control Unit-B: LCU-B



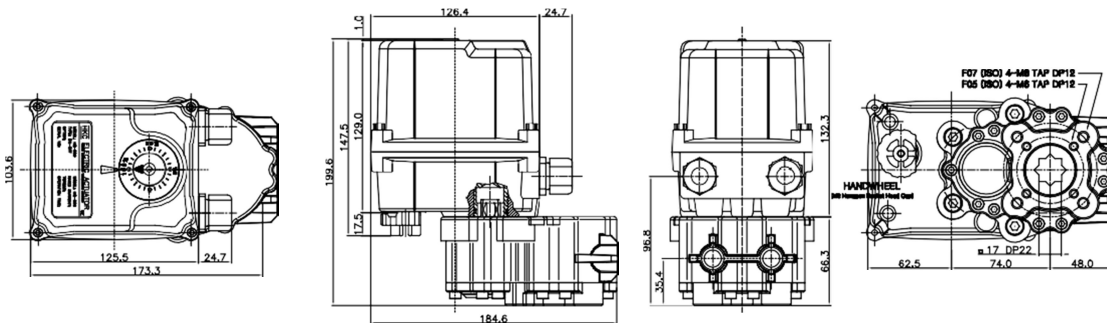
## Explosion Proof



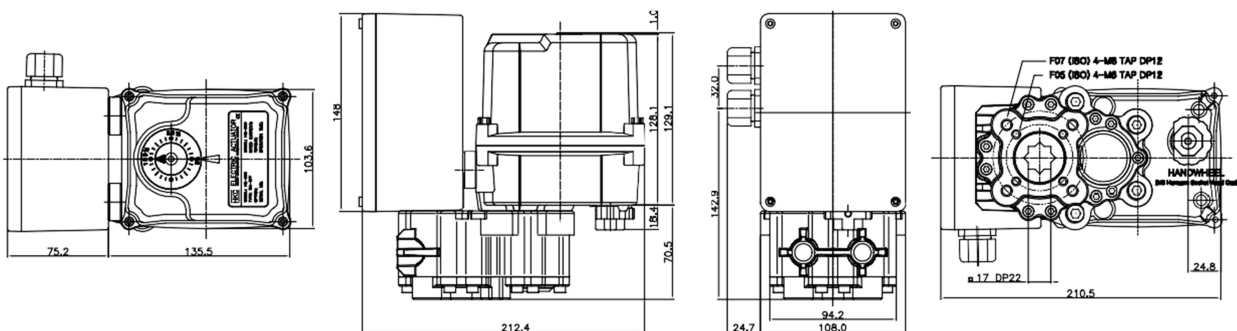
## HQ009- Dimensional Drawing

### Standard

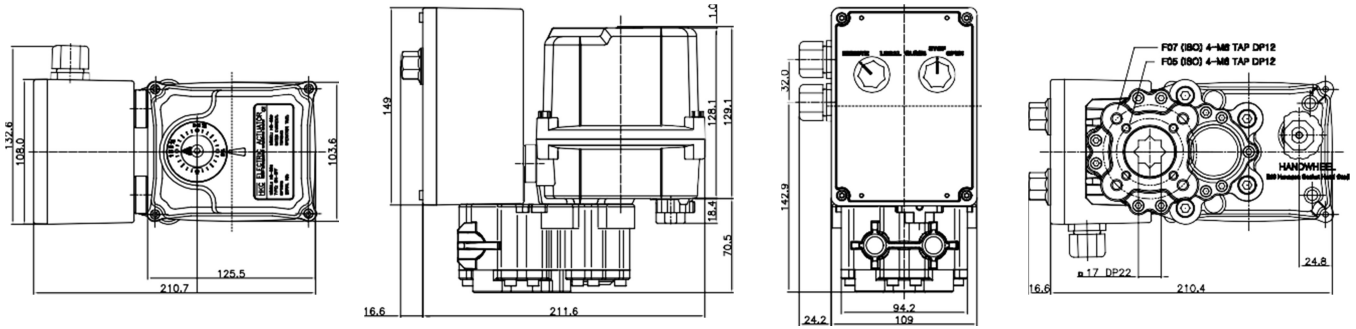
Unit: mm



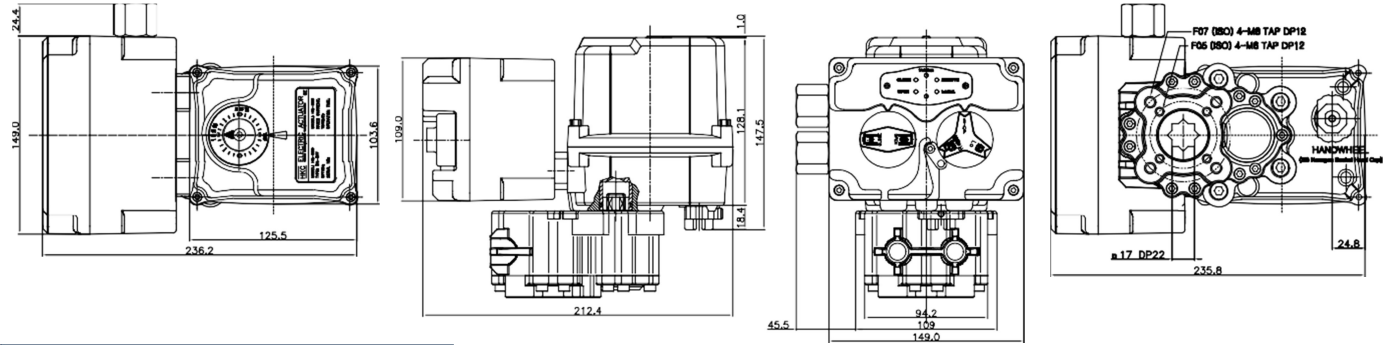
### Control Box (PCU, CPT, PIU)



# Local Control Unit-D: LCU-D



# Local Control Unit-Z: LCU-Z



# Explosion Proof

