HKC

ELECTRIC ACTUATORS

Electric Multi-turn Actuator
Electric Part-turn Actuator
Electric Linear Actuator





Company Introduction

Since 1991, HKC has been dedicated to delivering the highest quality products and services to our customers. Furthermore, we have made significant efforts to lead and advance the rapidly changing industry through continuous innovation management, technical development, human resource management, and more.

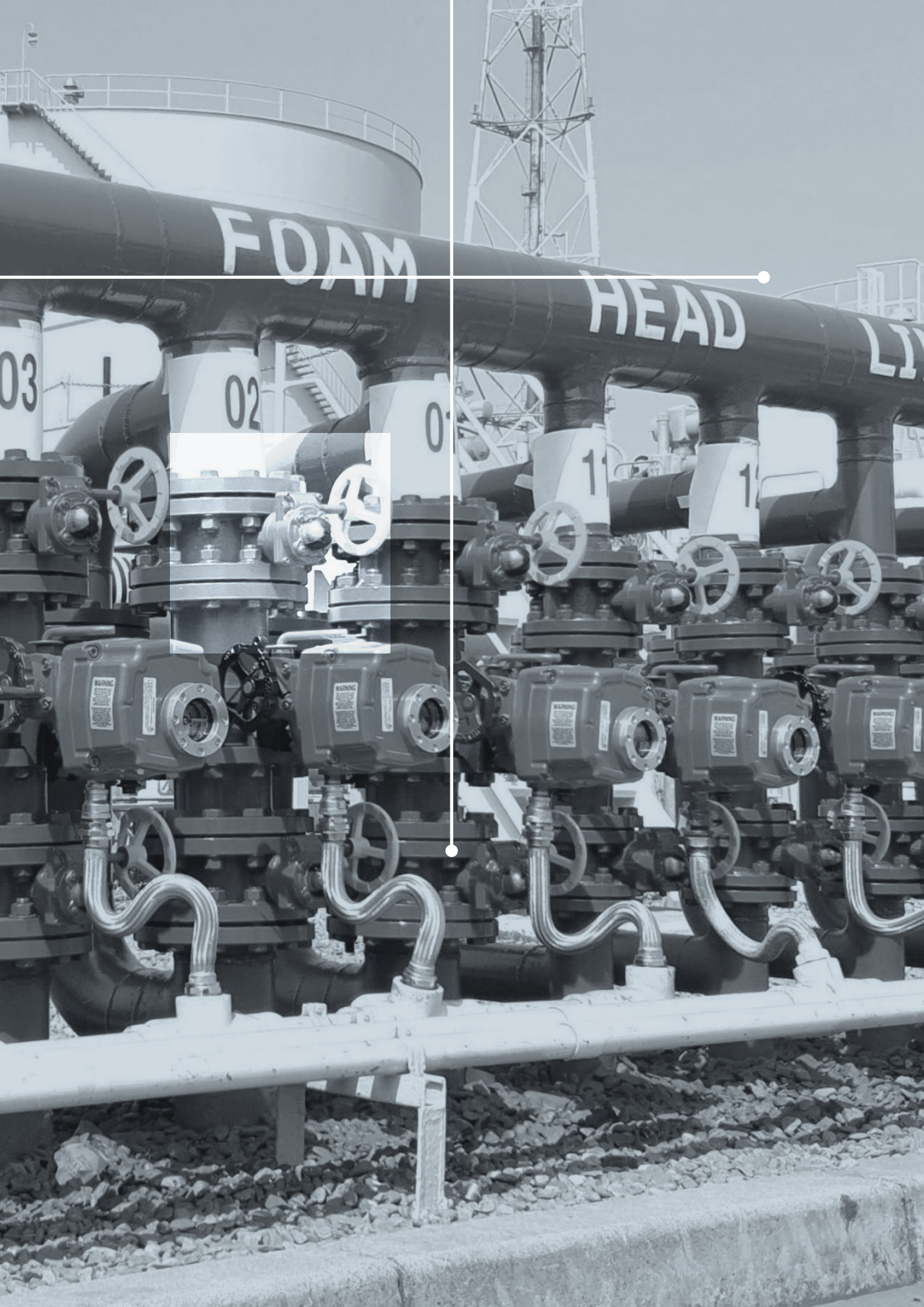
With a strong foundation in technical theory and diverse experience, HKC possesses unique know-how that serves as the driving force behind the development and scientific production of all our products. As a result, HKC is evolving into a first-class corporation that leads the valve automation industry with cutting-edge technologies.



HKC places great importance on corporate social responsibility.
We actively seek opportunities for mutual progress, sharing, and development with our partners and customers. Moreover, our customer-focused management approach ensures that all our services prioritize customer satisfaction above all else.

HKC will continue to strive to become a global leading corporation in the valve automation industry of the 21st century. We aim to achieve this by making significant contributions to the future through the provision of the highest quality products, continuous development of new technologies, and unwavering customer service.


N3104
N3104
ICL
ICL


FOAM
HEAD
03
02
01
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12

Electric Part-turn Actuator

HQ Series


HQ-004


HQ-006


HQ-008 to 120


HQ-200 to 300


HQ-350 to 400


HQ-600 to 900

Description

Designed for quarter-turn valves such as ball valves, butterfly valves, plug valves, dampers, and more, the HQ Series electric part-turn actuators ensure safe and reliable operation.

◆ Wide range of application

With reliable and stable operation, the HQ Series is used in many industries:

※ Oil & gas
※ Power plant
※ Chemical & petrochemical
※ Water
※ Marine & shipbuilding
※ Semiconductor factory & data center
※ General industries

◆ Wide ragne of torque

The maximum torque of the HQ Series ranges from 40 to 9,000 Nm.

◆ Board spectrum of options

The HQ Series offers a broad spectrum of options that can be combined to customize the actuator, satisfying the specific needs of the user.

◆ High corrosion protection

The covers and bodies of HQ Series actuator are made from high grade aluminum alloys which are robust and light weight. To provide high corrosion resistance, they are either chromate treated twice (HQ-004 to HQ-006) or hard-andoized (HQ-008 to HQ-900) on the inside & outside and polyester powder coating is further applied on the outside. For usauge in severe corrosive environments, C5 coating could be further applied to the HQ Series to enhance corrosion protection.

◆ High precision modulation control

250:1 control with 4-20 mA or 0-10 V dc

◆ Local Control Unit options

◆ Fail safe option with battery (RBP)

Available upto 3,000 Nm

◆ Communications

- PROFIBUS, MODBUS, CANBUS

◆ Wide range of voltages

- 100, 110, 200, 220, 240 V ac 1-phase
- 220, 380, 400, 415, 440, 460, 480 V ac 3-phase
- 12, 24 V dc (upto 3,000 Nm)
- 24 V ac/dc (upto 3,000 Nm)

Electric Quarter-turn Actuator

HQ-004

Features

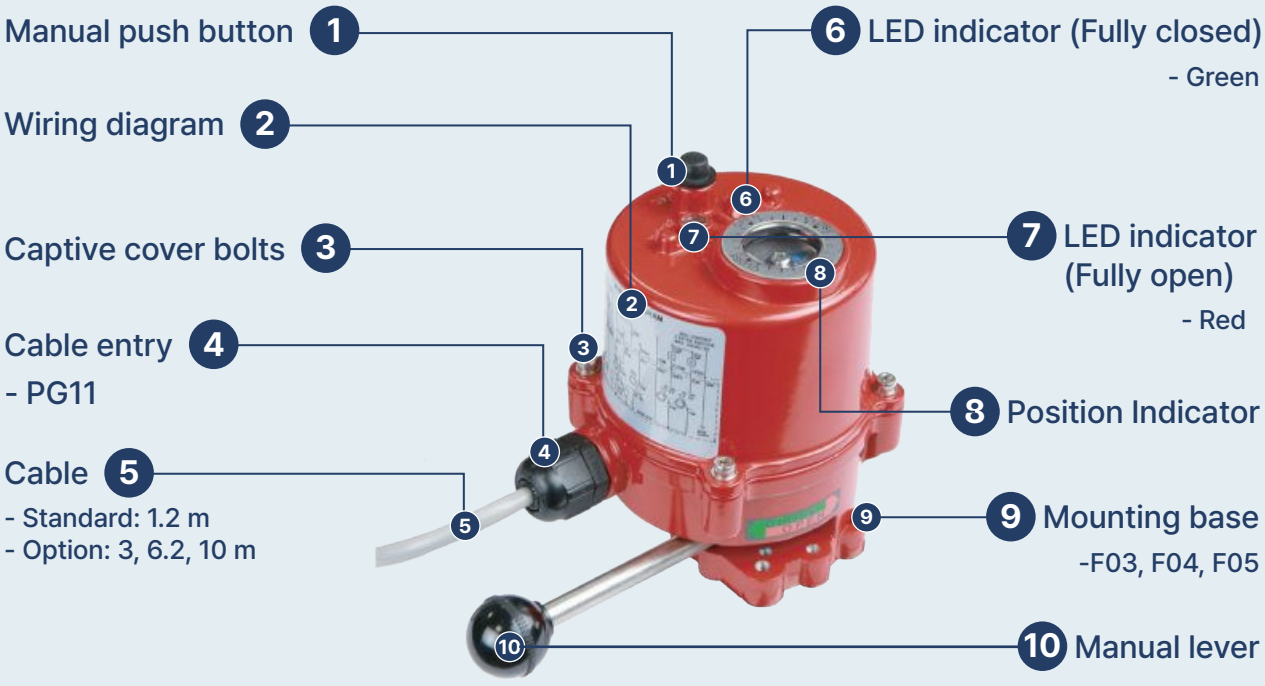
※ Aluminum die-cast, compact size, and light weight
※ Multi-voltage: 85 to 265 V ac, 1-phase / 24 V dc
※ Weatherproof enclosure IP67
※ Push button and manual lever included.
※ 4 limit switches and captive cover bolts
※ Mechanical position indicator
※ LED indicators for open & close



◆ Certificates and approvals

※ RINA type approval





Specification

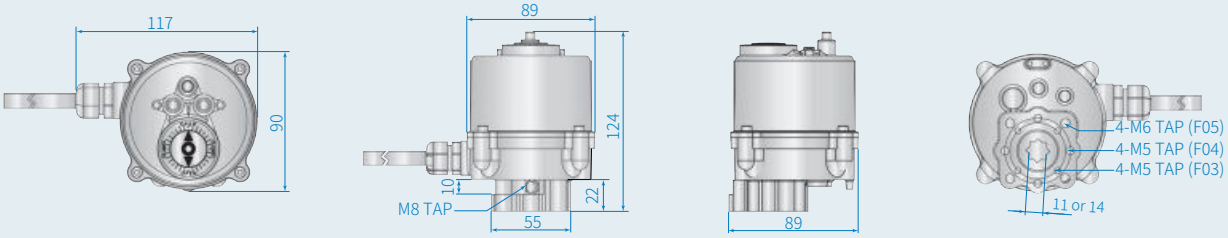
Standard Specification

Enclosure	Weatherproof enclosure IP67		
	High grade aluminium alloy, chromate treated twice & polyester powder coated		
Max. torque output	40 Nm (recommended operating torque: 30 Nm)		
Power supply	1-Phase: 85-265 V ac, 50/60 Hz, ±10% & 24 V dc	Rated current	1-phase: 0.1 A 24 V dc: 0.5 A
Duty cycle (on-off)	S2 30 min (room temp., average load of 50% of maximum torque)	Travel angle	0 - 90 °
Operating time	12 s	Limit switches	4 x SPDT (5 A 250 V ac)
Cable entry	PG11	Ambient temperature	-20 to +70 °C
Cable length	1.2 m	Lubrication	Grease moly (EP type)
		Weight	1.2 kg
No. of handle turns	8		
Flange size (ISO 5211)	F03, F04, F05/ star 11 mm or 14 mm		
Coating (color)	Red (RAL 3001), Blue (RAL 5005), Yellow (RAL 1033), Grey (RAL 7046), Light grey (RAL 7035), Green (RAL 6034)		

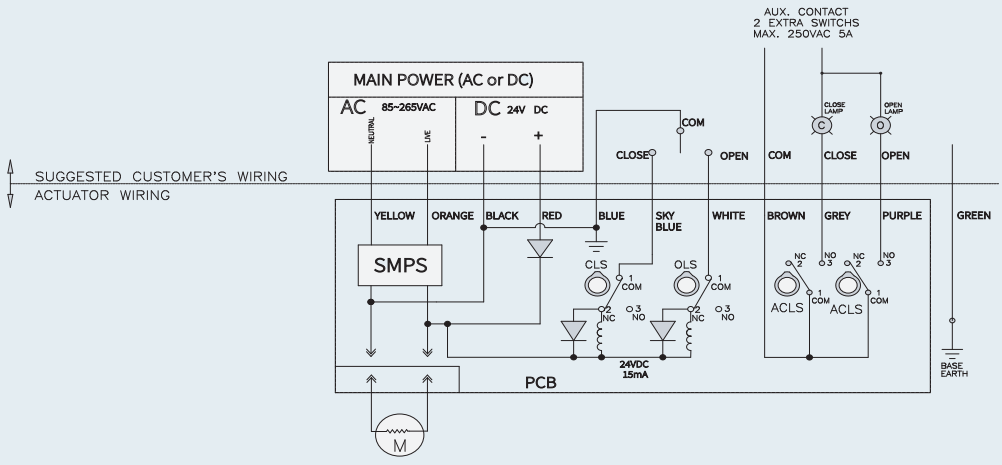
Optional Specification

Operating time	HSA: high speed actuator (Max. torque output: 20 Nm, operating time: 7 s)		
Power supply	12 V dc	Rated current	12 V dc: 1.0 A
Cable entry	M20	Cable length	3 m, 6.2 m, 10 m
Coating (color)	Other colors , C5 coating (for corrosive environment)		

Dimensional Drawing



Wiring Diagram



Electric Part-turn Actuator

HQ-006

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



Explosionproof

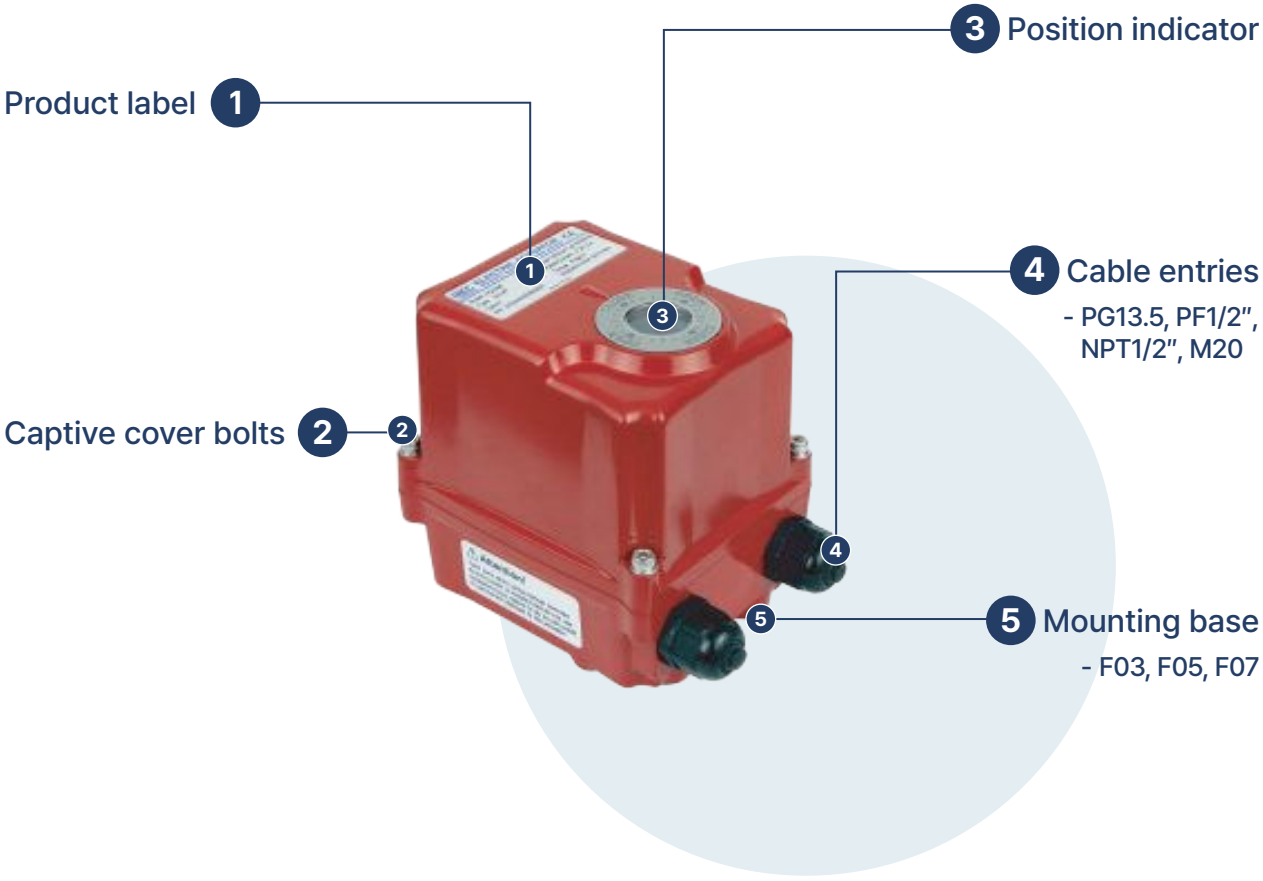


Modulation

◆ Certificates and approvals

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





Specification

◆ Standard Specification

Enclosure	Weatherproof enclosure IP67		
	High grade aluminium 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)	Red (RAL 3001), Blue (RAL 5005), Yellow (RAL 1033), Grey (RAL 7046), Light grey (RAL 7035), Green (RAL 6034)		

◆ 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 Transmitteroutput, output: 4-20 mA dc		
	PIU Potentiometer unit (0-1 kΩ)		
	MODBUS 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)	Other colors , C5 coating (for corrosive environment)		

◆ Explosion Proof Specification

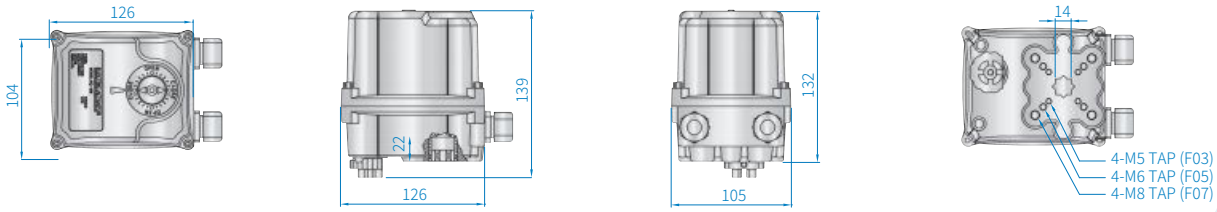
Enclosure	Weatherproof enclosure IP67		
	High grade aluminium alloy, chromate treated twice & polyester powder coated		
Max. torque output	60 Nm		
Power supply	1-Phase: 110/220 V ac, 50/60 Hz, ±10%	Rated current	1-phase 110 V ac: 0.4 A
			1-phase 220 V ac: 0.2 A
Duty cycle (on-off)	S2 30 min (room temp., 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)	Red (RAL 3001), Blue (RAL 5005), Yellow (RAL 1033), Grey (RAL 7046), Light grey (RAL 7035), Green (RAL 6034)		

◆ Explosion Proof Optional Specification

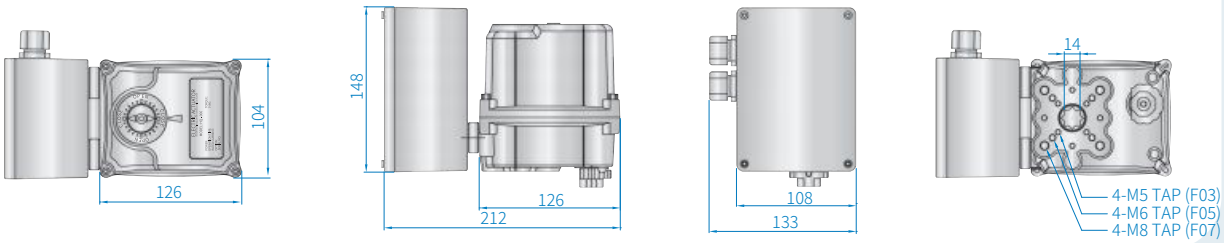
Enclosure rating	**WTA** Watertight enclosure actuator (IP68 10 m 72 hr)		
Power supply	**DC** 24 V dc	Rated current	24 V dc: 1.7 A
	ADCM 24 V ac/dc		24 V ac/dc: 1.7 A
Coating (color)	Other colors , C5 coating (for corrosive environment)		

Dimensional Drawing

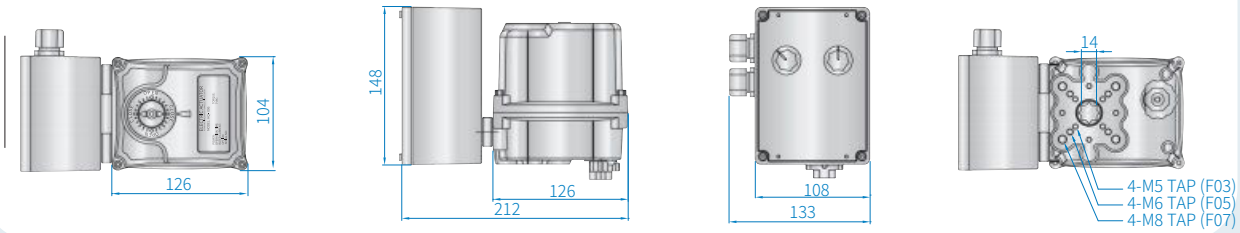
Standard



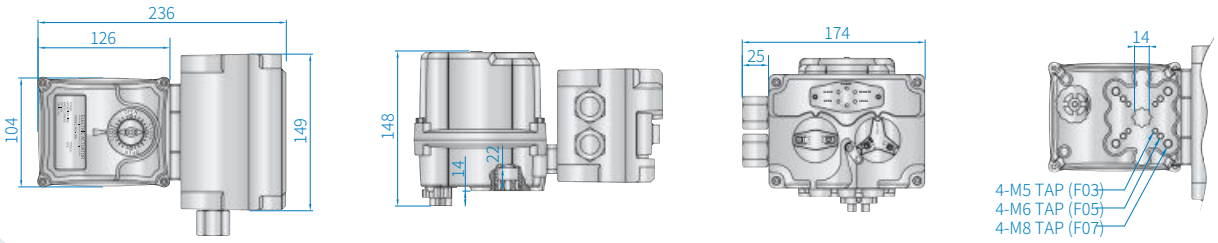
Control Box (PCU, CPT, PIU)



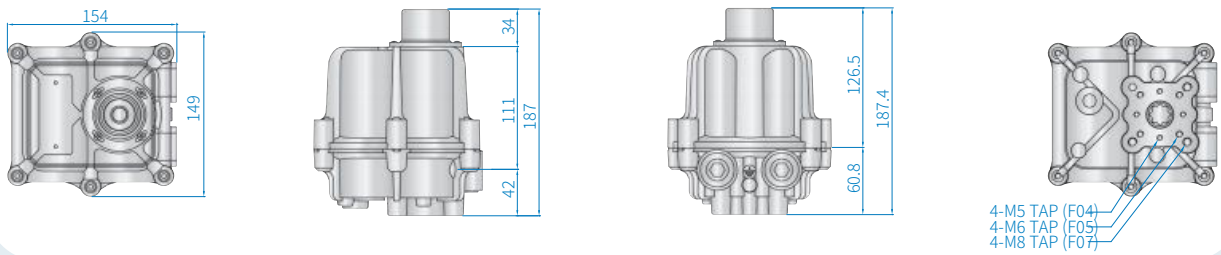
Local Control Unit-D: LCU-D



Local Control Unit-Z: LCU-Z



Explosion Proof



Electric Part-turn Actuator

HQ-008 to HQ-900

Features

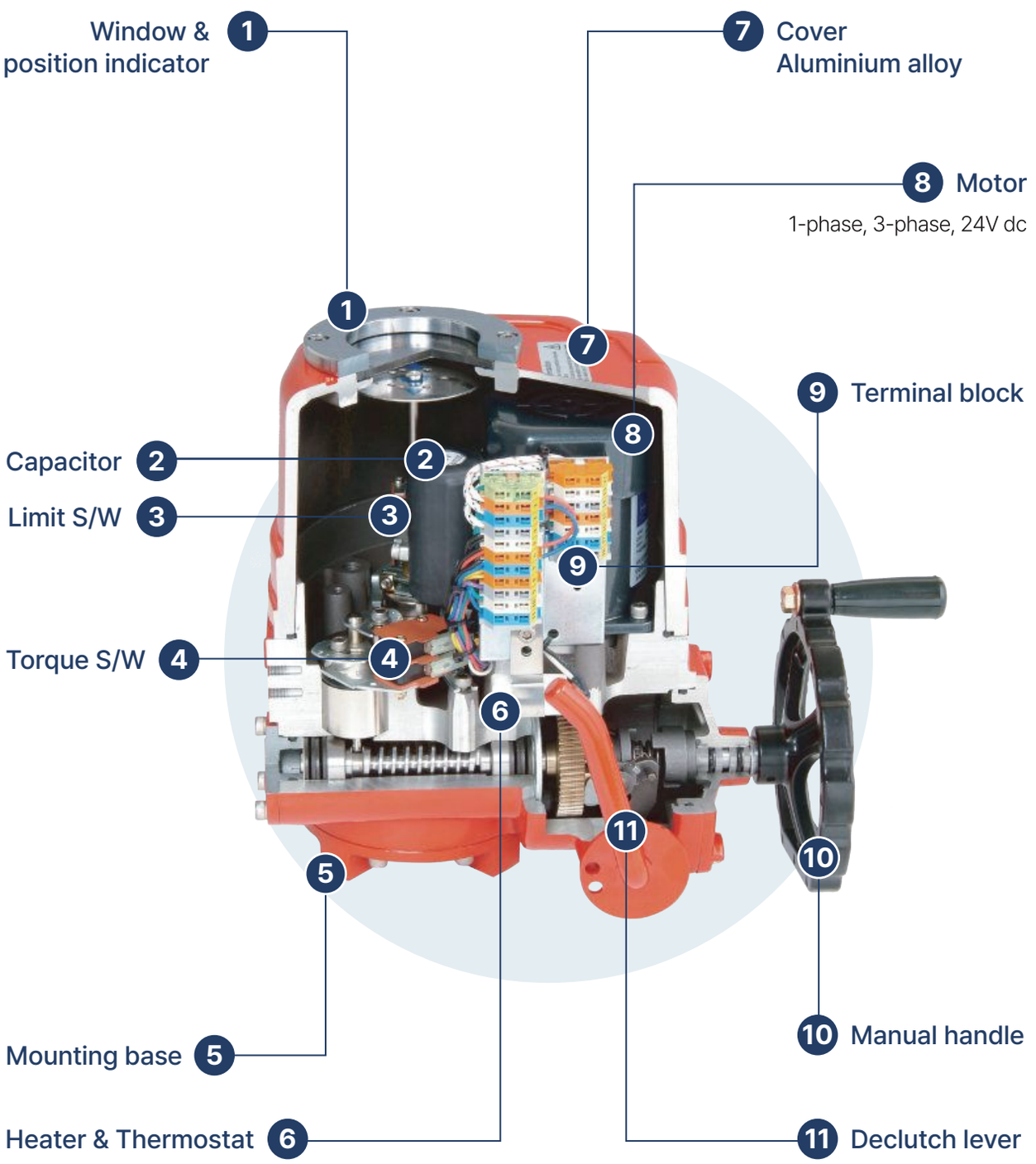
※ Listed as a World Class Korea product since 2013
※ Variety of options are available
※ Lightweight, robust, and has high corrosion protection
※ Precise modulating control (250:1) as an option
※ Maximum output torque up to 3,000 Nm with 24 V ac/dc
※ IP68 (upto 10 m, 72 hours) as an option
※ Flameproof (Ex db IIB T4) and dust ignition proof
(Ex tb IIIC T135°C) enclosures as an option
※ Communication (PROFIBUS, MODBUS, CANOpen) options
※ Fail safe battery backup option up to 3,000 Nm
※ C5 coating option for corrosive environment

◆ Certificates and approvals

※ IECEx (Ex db IIB T4 Gb, Ex tb IIIC T135°C Db)
※ ATEX (II 2G Ex db IIB T4 Gb, II 2D Ex tb IIIC T135°C Db)
※ KCs (Ex d IIB T4, Ex tD A21 IP6X, T135°C)
※ INMETRO (Ex db IIB T4 Gb, Ex tb IIIC T135°C Db)
※ EAC (1 Ex d IIB T4 Gb X, Ex tb IIIC T135°C Db)
※ CSA (Class I, Division 1, Groups C,D T4; Ex d IIB T4 Gb)
※ CCC (Ex db IIB T4 Gb, Ex tb IIIC T135°C Db)
※ SIL 2/3
※ RMRS type approval
※ ABS type approval
※ Turk Loydu type approval
※ RINA type approval
※ USCG test approval



Design Features



Performance

◆ Torque & Current

Model	Max. output torque	Operating time (sec) 50/60 Hz	Rated current (A), (50/60 Hz)										
			dc		ac, 1-phase					ac, 3-phase			
	Nm	90°	12 V	24 V	100 V 50/60 Hz	110 V 50/60 Hz	200 V 50/60 Hz	220 V 50/60 Hz	240 V 50/60 Hz	380 V 50/60 Hz	440 V 50/60 Hz	460 V 50/60 Hz	480 V 50/60 Hz
HQ-008	80	16/13	10.2	3.7	1.3/1.3	1.2/1.1	0.7/0.6	0.6/0.6	1.1/1.2	0.3/0.2	0.3/0.2	N/A	N/A
HQ-010	100	20/17	10.5	4.0	1.3/1.3	1.2/1.1	0.7/0.7	0.7/0.6	1.2/1.3	0.3/0.2	0.3/0.2	N/A	N/A
HQ-015	150	25/21	N/A	5.3	2.4/2.2	2.1/2.1	1.1/1.1	1.0/1.0	2.3/2.3	0.6/0.4	0.6/0.4	0.6/0.4	0.4/0.3
HQ-020	200	25/21	N/A	6.5	2.5/2.3	2.2/2.1	1.2/1.2	1.1/1.1	2.3/2.3	0.7/0.5	0.6/0.4	0.6/0.4	0.4/0.3
HQ-030	300	31/26	N/A	8.6	2.3/2.7	2.1/2.4	1.1/1.4	1.0/1.3	2.5/2.6	0.6/0.5	0.4/0.3	0.4/0.3	0.4/0.3
HQ-050	500	31/26	N/A	N/A	3.6/4.6	3.3/4.2	1.9/2.1	1.7/1.9	4.6/4.8	0.9/0.8	0.8/0.5	0.7/0.5	0.7/0.5
HQ-060	600	31/26	N/A	7.0	3.8/4.9	3.4/4.4	2.1/2.3	1.9/2.0	4.6/4.8	1.0/0.9	1.4/0.9	1.3/0.9	0.7/0.6
HQ-080	800	37/31	N/A	8.6	6.0/6.3	5.4/5.7	2.9/3.1	2.6/2.8	6.5/6.5	1.3/1.0	1.7/0.9	1.6/0.9	1.1/0.8
HQ-120	1,200	37/31	N/A	8.6	7.2/7.6	6.5/6.9	3.1/3.3	2.8/3.0	6.8/6.8	1.5/1.1	1.8/1.0	1.7/0.9	1.3/0.9
HQ-200	2,000	112/93	N/A	8.6	6.0/6.3	5.4/5.7	3.4/3.3	3.1/3.0	6.8/6.8	1.4/1.0	1.7/1.0	1.6/0.9	1.2/0.8
HQ-270	2,700	56/47	N/A	N/A	7.2/7.4	6.3/6.7	3.5/3.4	3.2/3.1	6.9/6.9	1.5/1.1	1.8/1.0	1.7/0.9	1.3/0.9
HQ-300	3,000	112/93	N/A	8.6	7.2/7.6	6.5/6.9	3.1/3.3	2.8/3.0	7.0/7.0	1.5/1.1	1.8/1.0	1.7/0.9	1.3/0.9
HQ-350	3,400	39/33	N/A	N/A	N/A	8.0/9.0	N/A	11.2/8.7	N/A	4.2/3.0	2.5/1.8	2.6/1.8	2.7/2.0
HQ-400	4,000	58/49	N/A	N/A	N/A	8.0/9.0	N/A	11.2/8.7	N/A	4.2/3.0	2.5/2.0	2.6/2.0	2.7/2.0
HQ-600	6,000	78/66	N/A	N/A	N/A	8.0/9.0	N/A	11.2/8.7	N/A	4.2/3.0	2.5/1.8	2.6/1.8	2.7/2.0
HQ-800	8,000	116/98	N/A	N/A	N/A	8.0/9.0	N/A	11.2/8.7	N/A	4.2/3.0	2.5/1.8	2.6/1.8	2.7/2.0
HQ-900	9,000	117/99	N/A	N/A	N/A	8.0/9.0	N/A	11.2/8.7	N/A	4.2/3.0	2.5/2.0	2.6/2.0	2.7/2.0

◆ Mechanical Data

Model	HQ-008 HQ-010	HQ-015 HQ-020	HQ-030	HQ-050 HQ-060	HQ-080 HQ-120	HQ-200 HQ-270 HQ-300	HQ-350 HQ-400	HQ-600	HQ-800 HQ-900
Mounting bore size Ø (mm)	20	22	35	35	45	65	75	110	110
Flange size (ISO 5211)	F07	F07/F10	F10/F12	F10/F12	F12/F14	F14/F16	F16	F25/F30	F25/F30
No. of handle turns (n)	10	11	13.5	13.5	16.5	49.5	52.5	105	157.5
Standard weight (kg)	7	14	18	19	25	65	75	215	215
Explosion proof weight (kg)	8	16	22	22	30	70	N/A	N/A	N/A

Specification

◆ Standard Specification

Material	High grade aluminium alloy, nodular cast iron, aluminium bronze, steel, polycarbonate	All
External coating	Hard anodizing treatment and polyester powder coating	All
Enclosure	Weatherproof enclosure IP67	All
	NEMA Type 4, 4X, 6, IP66, IP67	HQ-008 to HQ-300
Power	ac 1-phase, 100, 200 V, 50/60 Hz, ±10%	HQ-008 to HQ-300
	ac 1-phase, 110, 220 V, 50/60 Hz, ±10%	All
	ac 1-phase, 240 V, 50 Hz, ±10%	HQ-008 to HQ-300
	ac 3-phase, 220 V ac 3 ph, 50/60 Hz, ±10%	HQ-015 to HQ-300
	ac 3-phase, 380 to 440 V ac 3 ph, 50/60 Hz, ±10%	All
	ac 3-phase, 460, 480 V ac 3 ph, 50/60 Hz, -5/+2%	HQ-015 to HQ-300
	12 V dc	HQ-008, HQ-010
	24 V dc	HQ-008 to HQ-300
Duty cycle (on-off)	S2 30 min (room temperature, average load of 50% of maximum torque)	All
Motor	Induction motor (reversible motor)	All
Ambient temperature	-20 to +70 °C	All
Ambient humidity	90% max. RH (non-condensing)	All
Cable entries	2 x PF3/4", 2 x NPT3/4", 2 x M25, 2 x M20	HQ-008 to HQ-300
	2 x PF3/4" + PF1"	HQ-350 to HQ-900
Limit switches	2-SPDT (open/close), 250 V ac 16 A rating	HQ-008 to HQ-010
	4-SPDT (open/close), 250 V ac 16 A rating	HQ-015 to HQ-900
Torque switches	2-SPDT (open/close), 250 V ac 16 A rating	HQ-015 to HQ-900
Travel angle	90±10° (0-110°) clockwise to close	All
Manual operation	Declutchable manual override	All
Self locking	Provided by double worm gear	All
Space heater	5 W (100, 110, 200 to 240 V ac 1 ph, 12/24 V dc), anti-condensation	HQ-008 to HQ-010
	10 W (100, 110, 200 to 240 V ac 1 ph, 12/24 V dc), anti-condensation	HQ-015 to HQ-900
Stall protection	Built-in thermal protection (thermostat), opens at 150±5°C and closes at 97±15°C	All
Anti vibration	XYZ 10g, 0.2-34 Hz, 30 min	All
Lubrication	Grease moly (EP type)	All
Coating (color)	Titanium Silver (RAL 9006), Red (RAL 3001), Blue (RAL 5005), Yellow (RAL 1033), Grey (RAL 7046), Light grey (RAL 7035), Green (RAL 6034)	

◆ Optional Specification

Enclosure	**WTA** watertight enclosure IP68 (10 m 72 hours)	All
Power	**ADCM** multi ac-dc 24 V (integral)	HQ-008 to 300 (except 050, 270)
Additional switch	**ALS** additional limit switches, 2-SPDT (open/close), 250 V ac 16 A rating	All
	ATS additional torque switches, 2-SPDT (open/close), 250 V ac 16 A rating	HQ-015 to HQ-900
Ambient temperature	**LT** low temperature (-40 to +60 °C), lubrication: tribolube-18	All
High speed	High speed actuator **(2L, 3L)**	HQ-008 to HQ-300
Travel angle	**EXT** extension 120°, 135°, 180°, 270°, etc.	All
	R reverse operation, 90±10° (0-110°) counter-clockwise to close	All
Control	**PIU** potentiometer unit (0-1 kΩ)	All
	*1 **CPT** current position transmitter (4-20 mA dc)	All
	*1 **PCU** Proportional Control Unit (modulating), input/output: 0-10 V dc or 4-20 mA dc (duty cycle) S4 40-70%, 800-1,200 starts/hour (room temperature, average load of 50% of maximum torque)	All
	PROFI Registered PROFIBUS DP interface modules	All
	MODBUS Modbus modules	All
	CANopen CANopen modules	All
Local control	**LCU-Z** LED local control unit	All
	LCU-B LED local control unit (integral switch)	All
	LCU-C LCD local control unit (integral switch, auto phase discriminator, separate terminal box)	HQ-015 to HQ-900
	RBP Rechargeable Battery Pack for emergency fail safe operation	HQ-008 to HQ-300
Coating (color)	Other colors , C5 coating (for corrosive environment)	All
Others	**SPD** Surge protection device (Max. 15 kW)	All
	FPA1 Fire proofing actuator (1050±5°C / 50 min), **FPA2** Fire proofing actuator (250±5°C / 150 min)	All

*1 An additional box is attached to HQ-008/010

◆ Explosion Proof Specification

Material	High grade aluminium alloy, nodular cast iron, aluminium bronze, steel, polycarbonate	HQ-008 to HQ-300
External coating	Hard anodizing treatment and polyester powder coating	HQ-008 to HQ-300
Enclosure	Flameproof (Ex db IIB T4) - IECEx, ATEX, CSA, EAC, CCC, KCs	HQ-008 to HQ-300
	Dust ignition proof (Ex tb IIIC T135°C) - IECEx, ATEX, EAC, CCC, KCs	HQ-008 to HQ-300
	NEMA Type 4, 4X, 6, IP66, IP67	HQ-008 to HQ-300
Power	100, 110 V ac 1 ph, 50/60 Hz, ±10%	HQ-008 to HQ-300
	200 to 240 V ac 1 ph, 50/60 Hz, ±10%	HQ-008 to HQ-300
	220 V ac 3 ph, 50/60 Hz, ±10%	HQ-015 to HQ-300
	380 to 440 V ac 3 ph, 50/60 Hz, ±10%	HQ-008 to HQ-300
	460 V ac 3 ph, 50/60 Hz, ±10%	HQ-008 to HQ-010
	12 V dc	HQ-008 to HQ-010
	24 V dc	HQ-008 to HQ-030
Duty cycle (on-off)	S2 30 min (room temperature, average load of 50% of maximum torque)	HQ-008 to HQ-300
Motor	Induction motor (reversible motor)	HQ-008 to HQ-300
Ambient temperature	-20 to +60 °C	HQ-008 to HQ-300
Ambient humidity	90% max. RH (non-condensing)	HQ-008 to HQ-300
Cable entries	2 x NPT3/4", 2 x M25, 2 x M20	HQ-008 to HQ-300
Limit switches	2-SPDT (open/close), 250 V ac 16 A rating	HQ-008 to HQ-010
	4-SPDT (open/close), 250 V ac 16 A rating	HQ-015 to HQ-300
Torque switches	2-SPDT (open/close), 250 V ac 16 A rating	HQ-015 to HQ-300
Travel angle	90±10° (0-110°) clockwise to close	HQ-008 to HQ-300
Manual operation	Declutchable manual override	HQ-008 to HQ-300
Self locking	Provided by double worm gear	HQ-008 to HQ-300
Space heater	5 W (100, 110, 200 to 240 V ac 1 ph, 12/24 V dc), anti-condensation	HQ-008 to HQ-010
	10 W (100, 110, 200 to 240 V ac 1 ph, 12/24 V dc), anti-condensation	HQ-015 to HQ-300
Stall protection	Built-in thermal protection (thermostat), opens at 150±5°C and closes at 97±15°C	HQ-008 to HQ-300
Anti vibration	XYZ 10g, 0.2-34 Hz, 30 min	HQ-008 to HQ-300
Lubrication	Grease moly (EP type)	HQ-008 to HQ-300
Coating (color)	● Titanium Silver (RAL 9006), ● Red (RAL 3001), ● Blue (RAL 5005), ● Yellow (RAL 1033), ● Grey (RAL 7046), ● Light grey (RAL 7035), ● Green (RAL 6034)	

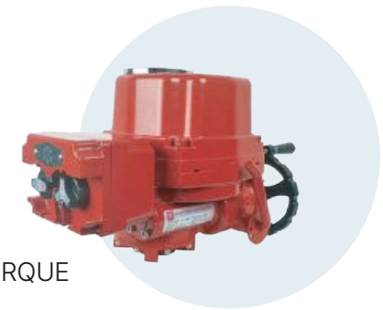
◆ Explosion Proof Optional Specification

Enclosure	**WTA** watertight enclosure IP68 (10 m 72 hours)	HQ-008 to HQ-300
Power	**ADCM** multi ac-dc 24 V (integral)	HQ-008 to 300 (except 050, 270)
Additional switch	**ALS** additional limit switches, 2-SPDT (open/close), 250 V ac 16 A rating	HQ-008 to HQ-300
	ATS additional torque switches, 2-SPDT (open/close), 250 V ac 16 A rating	HQ-015 to HQ-300
High speed	High speed actuator **(2L, 3L)**	HQ-008 to HQ-300
Travel angle	**EXT** extension 120°, 135°, 180°, 270°, etc.	HQ-008 to HQ-300
	R reverse operation, 90±10° (0-110°) counter-clockwise to close	HQ-008 to HQ-300
Control	**PIU** potentiometer unit (0-1 kΩ)	HQ-008 to HQ-300
	CPT current position transmitter (4-20 mA dc)	HQ-015 to HQ-300
	PCU Proportional Control Unit (modulating), input/output: 0-10 V dc or 4-20 mA dc (duty cycle) S4 40-70%, 800-1,200 starts/hour (room temperature, average load of 50% of maximum force)	HQ-008 to HQ-300
	PROFI Registered PROFIBUS DP interface modules	HQ-008 to HQ-300
	MODBUS Modbus modules	HQ-008 to HQ-300
	CANopen CANopen modules	HQ-008 to HQ-300
Local control	**LCU-B EX** : LED local control unit	HQ-008 to HQ-300
	LCU-2B EX: LED local control unit (integral switch)	HQ-008 to HQ-300
Coating (color)	◔ Other colors , ◯ C5 coating (for corrosive environment)	HQ-008 to HQ-300
Others	**SPD** Surge protection device (Max. 15 kW)	HQ-008 to HQ-300
	FPA1 Fire proofing actuator (1050±5°C / 50 min), **FPA2** Fire proofing actuator (250±5°C / 150 min)	HQ-008 to HQ-300

Local Control Units

Local Control Unit-Z: LCU-Z

※ Aluminum die-cast, compact size, and light weight
※ Weatherproof IP67
※ Applicable models: HQ-006 to HQ-900
※ Power supply: 110/220 V ac 1-phase, 50/60 Hz, ±10%
※ LED lamp indicators



○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING

Local Control Unit-B: LCU-B

※ Aluminum die-cast, compact size, and integrated design
※ Weatherproof IP67 or IP68 option
※ Integral starter (mechanical or electrical)
※ Phase reversal protection with LED signal (yellow)
※ Applicable models: HQ-008 to HQ-900
※ Power supply
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-220 to 480 V ac 3-phase, 50/60 Hz, ±10%
※ LED lamp indicators



○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING

Local Control Unit-C: LCU-C

※ Aluminum die-cast, compact size, and integrated design
※ Weatherproof IP67 or IP68 option
※ LCD monitor: digital indicators with numbers and graphs
※ Separate terminal chmaber
※ Auto phase discriminator (easy & convenient wiring)
※ Applicable models: HQ-008 to HQ-900
※ Power supply
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-220 to 480 V ac 3-phase, 50/60 Hz, ±10%



Rechargeable Battery Pack: RBP

※ Aluminum die-cast and compact size
※ Emergency application in case of a power failure
※ Applicable models:
-HQ-008 to HQ-030, HQ-060 to HQ-300
※ Power supply
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-24 V dc
※ LED lamp indicators



○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING ● GBR : BATTERY LEVEL

Local Control Unit-Z: LCU-Z

※ Weatherproof IP67 or watertight IP68 option
※ Additional cable entries : 4 x NPT3/8
※ Integral starter (mechanical or electrical)
※ Phase reversal protection with LED signal (yellow)
※ Applicable models: HQ-008 to HQ-900
※ Power supply:
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-220 to 480 V ac 3-phase, 50/60 Hz, ±10%
※ LED lamp indicators



○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING

Explosion Proof Local Control Unit-B(EX): LCU-B(EX)

※ Flameproof (Ex db IIB T4) / Dust ignition proof (Ex tb IIIC T135°C)
※ Weatherproof IP67 or watertight IP68 option
※ Applicable models: HQ-008 to HQ-300
※ Power supply:
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-220 to 480 V ac 3-phase, 50/60 Hz, ±10%
※ LED lamp indicators



○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING

Explosion Proof Local Control Unit-2B(EX): LCU-2B(EX)

※ Flameproof (Ex db IIB T4) / Dust ignition proof (Ex tb IIIC T135°C)
※ Separate terminal chamber
※ Weatherproof IP67 or watertight IP68 option
※ Applicable models: HQ-008 to HQ-300
※ Additional cable entries : 5 x NPT3/4"
※ Power supply:
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-220 to 480 V ac 3-phase, 50/60 Hz, ±10%
※ LED lamp indicators



○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING

Explosion Proof MODBUS / PROFIBUS

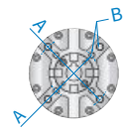
※ Flameproof (Ex db IIB T4) / Dust ignition proof (Ex tb IIIC T135°C)
※ Separate terminal chamber
※ Weatherproof IP67 or watertight IP68 option
※ Applicable models: HQ-008 to HQ-300
※ Additional cable entries : 5 x NPT3/4"
※ Power supply:
-110/220 V ac 1-phase, 50/60 Hz, ±10%
-220 to 480 V ac 3-phase, 50/60 Hz, ±10%
▪LED lamp indicators



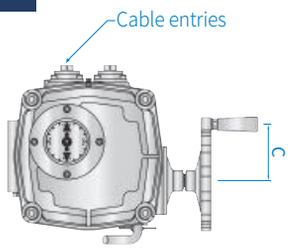
○ White : POWER ● Red : OPEN/OPENING ● Yellow : OVER TORQUE
● Blue : REMOTE ● Green : CLOSE/CLOSING

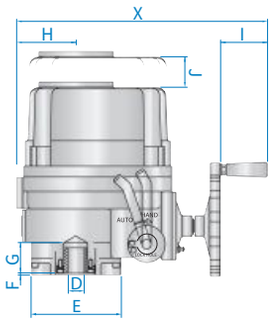
Dimensional Drawing

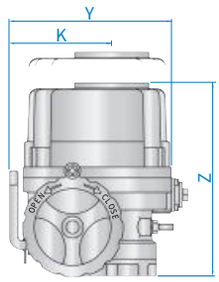
HQ-008 to HQ-120



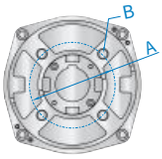
BASE ISO 5211



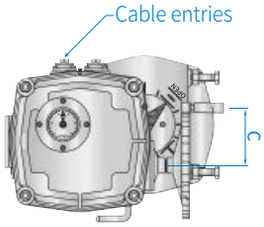


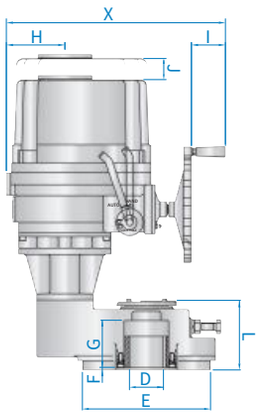


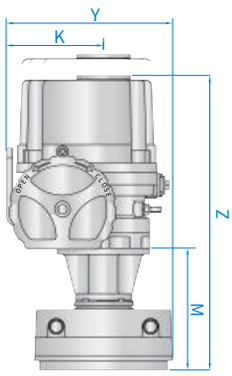
HQ-200 to HQ-300



BASE ISO 5211







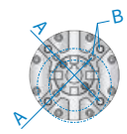
◆ Dimension

unit (mm)

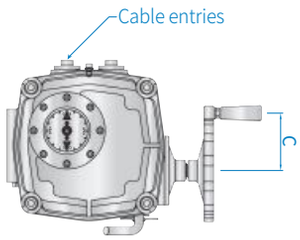
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HQ-008	F07 Ø70	M8 DP12	60	20	94	3	32	57	51	40	100			265	166	235
HQ-010	F07 Ø70	M8 DP12	60	20	94	3	32	57	51	40	100			265	166	235
HQ-015	F07 / F10 Ø70 / Ø102	M8 / M10 DP12 / DP15	78	22	125	3	43	83	65	54	142			348	255	268
HQ-020	F07 / F10 Ø70 / Ø102	M8 / M10 DP12 / DP15	78	22	125	3	43	83	65	54	142			348	255	268
HQ-030	F10 / F12 Ø102 / Ø125	M10 / M12 DP15 / DP18	78	35	148	3	49	92	65	65	160			348	255	290
HQ-050	F10 / F12 Ø102 / Ø125	M10 / M12 DP15 / DP18	78	35	148	3	49	92	65	65	160			378	255	304
HQ-060	F10 / F12 Ø102 / Ø125	M10 / M12 DP15 / DP18	78	35	148	3	49	92	65	65	160			378	255	304
HQ-080	F12 / F14 Ø125 / Ø140	M12 / M16 DP18 / DP24	110	45	178	3	57	112	65	78	186			378	289	330
HQ-120	F12 / F14 Ø125 / Ø140	M12 / M16 DP18 / DP24	110	45	178	3	57	112	65	78	186			419	289	330
HQ-200	F14 or F16 Ø140 or Ø165	M16 or M20 DP24 or DP30	110	65	245	5	90	112	65	78	186	233	133	419	319	563
HQ-270	F14 or F16 Ø140 or Ø165	M16 or M20 DP24 or DP30	110	65	245	5	90	112	65	78	186	233	133	419	319	563
HQ-300	F14 or F16 Ø140 or Ø165	M16 or M20 DP24 or DP30	110	65	245	5	90	112	65	78	186	233	133	419	319	563

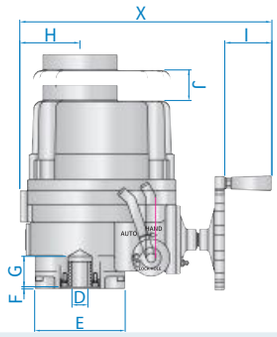
* Please consult the factory for the appropriate machined bushing size, as maximum bushing size can vary depending on the shape (star, key, etc.)

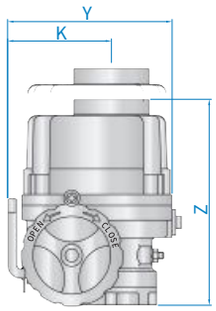
Explosion Proof HQ-008 to HQ-120



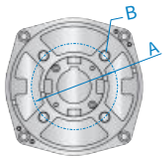
BASE ISO 5211



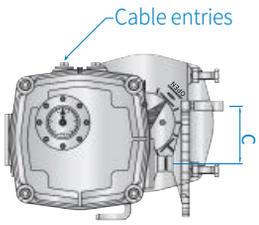


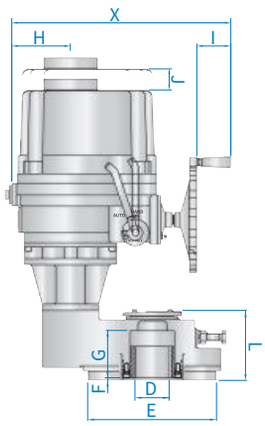


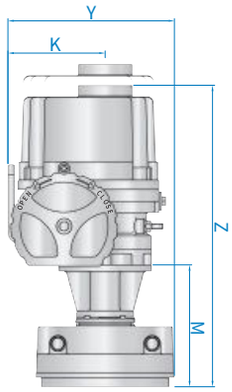
Explosion Proof HQ-200 to HQ-300



BASE ISO 5211







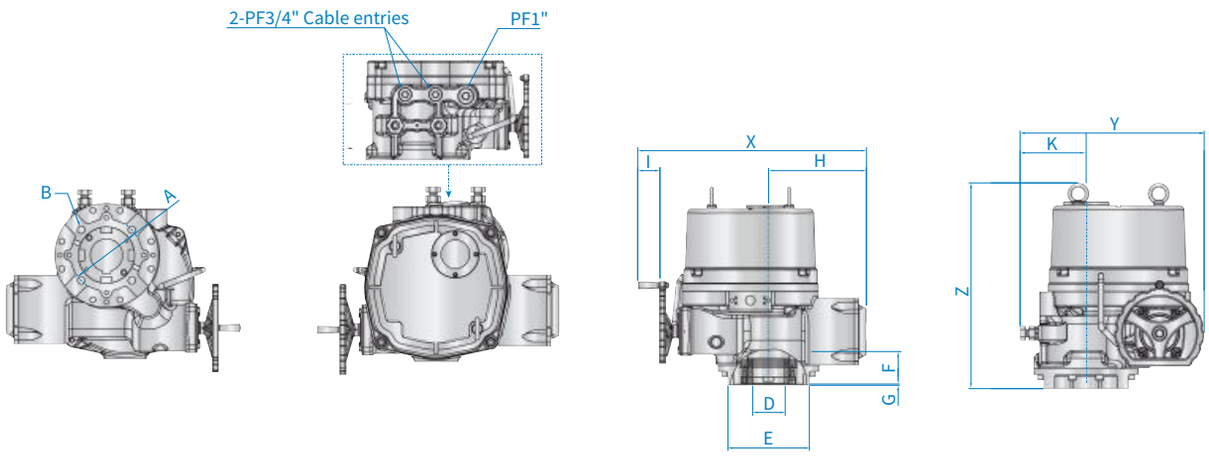
◆ Dimension

unit (mm)

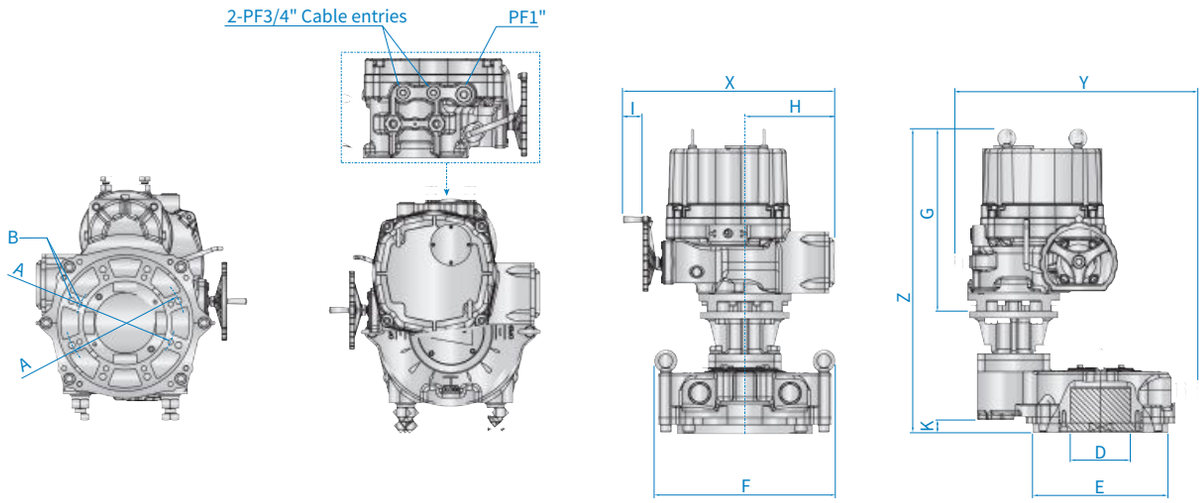
Model	A ISO 5211	B	C	D Max.	E	F	G	H	I	J	K	L	M	X	Y	Z
HQ-008	F07 Ø70	M8 DP12	60	20	94	3	32	57	51	40	100			265	166	249
HQ-010	F07 Ø70	M8 DP12	60	20	94	3	32	57	51	40	100			265	166	249
HQ-015	F07 / F10 Ø70 / Ø102	M8 / M10 DP12 / DP15	78	22	125	3	43	83	65	54	142			348	255	282
HQ-020	F07 / F10 Ø70 / Ø102	M8 / M10 DP12 / DP15	78	22	125	3	43	83	65	54	142			348	255	282
HQ-030	F10 / F12 Ø102 / Ø125	M10 / M12 DP15 / DP18	78	35	148	3	49	92	65	65	160			348	255	318
HQ-050	F10 / F12 Ø102 / Ø125	M10 / M12 DP15 / DP18	78	35	148	3	49	92	65	65	160			378	255	318
HQ-060	F10 / F12 Ø102 / Ø125	M10 / M12 DP15 / DP18	78	35	148	3	49	92	65	65	160			378	255	318
HQ-080	F12 / F14 Ø125 / Ø140	M12 / M16 DP18 / DP24	110	45	178	3	57	112	65	78	186			378	289	344
HQ-120	F12 / F14 Ø125 / Ø140	M12 / M16 DP18 / DP24	110	45	178	3	57	112	65	78	186			419	289	344
HQ-200	F14 or F16 Ø140 or Ø165	M16 or M20 DP24 or DP30	110	65	245	5	90	112	65	78	186	233	133	419	319	577
HQ-270	F14 or F16 Ø140 or Ø165	M16 or M20 DP24 or DP30	110	65	245	5	90	112	65	78	186	233	133	419	319	577
HQ-300	F14 or F16 Ø140 or Ø165	M16 or M20 DP24 or DP30	110	65	245	5	90	112	65	78	186	233	133	419	319	577

* Please consult the factory for the appropriate machined bushing size, as maximum bushing size can vary depending on the shape (star, key, etc.)

HQ-350 to HQ-400



HQ-600 to HQ-900



◆ Dimension

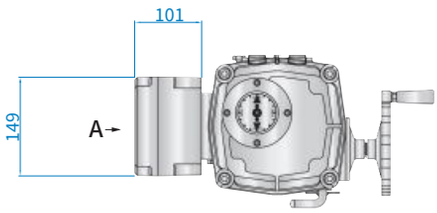
unit (mm)

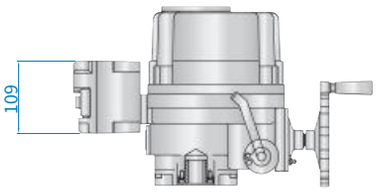
Model	A ISO 5211	B	D Max.	E	F	G	H	I	K	M	X	Y	Z
HQ-350	F16 Ø165	M20 DP30	75	77	3	232	52	152	422		378	255	318
HQ-400	F16 Ø165	M20 DP30	110	178	3	57	112	65	186		378	289	344
HQ-600	F25 / F30 Ø254 / Ø298	M16 / M20 DP30 / DP35	110	178	3	57	112	65	186		419	289	344
HQ-800	F25 / F30 Ø254 / Ø298	M16 / M20 DP30 / DP35	110	245	5	90	112	65	186	133	419	319	577
HQ-900	F25 / F30 Ø254 / Ø298	M16 / M20 DP30 / DP35	110	245	5	90	112	65	186	133	419	319	577

Local Control Unit-Z: LCU-Z



View A

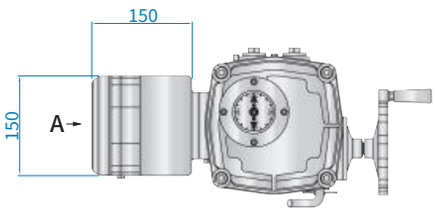


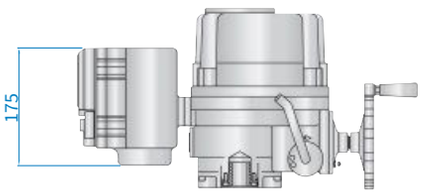


Local Control Unit-B: LCU-B



View A

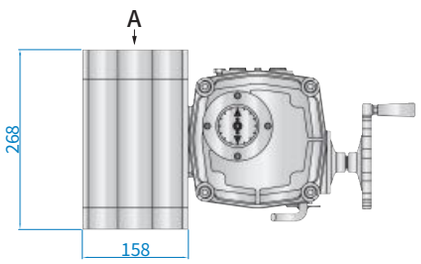


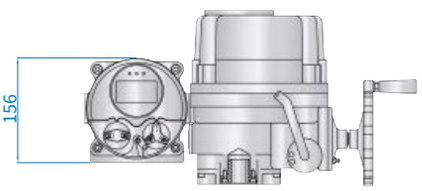


Local Control Unit-C: LCU-C



View A

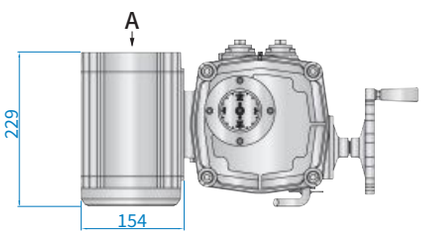


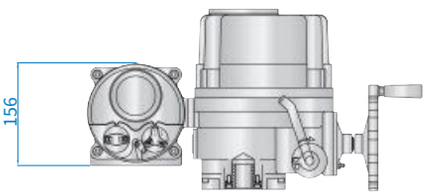


Rechargeable Battery Pack: RBP

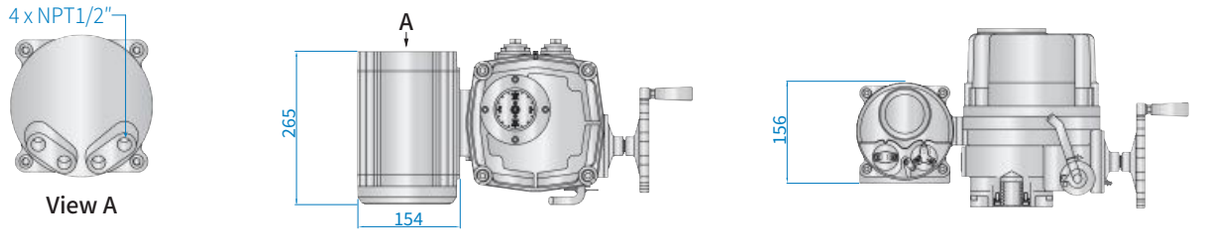


View A

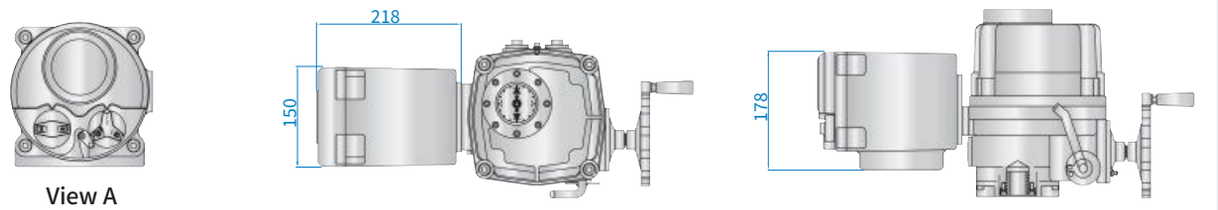




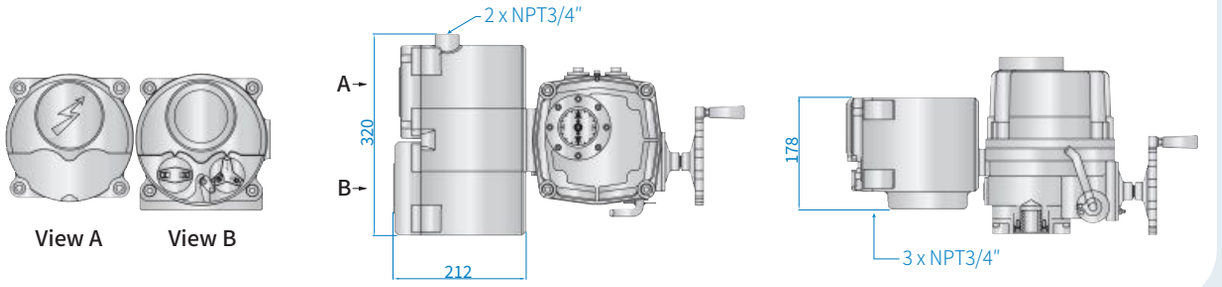
MODBUS / PROFIBUS



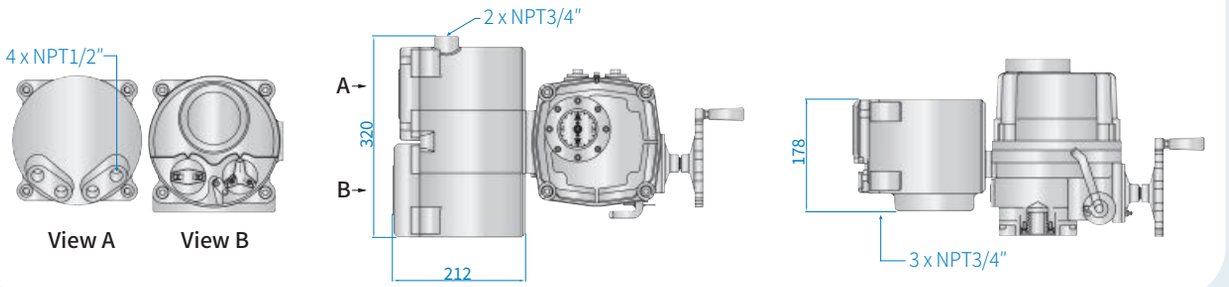
Explosion Proof Local Control Unit-B(EX): LCU-B(EX)



Explosion Proof Local Control Unit-2B(EX): LCU-2B(EX)



Explosion Proof MODBUS / PROFIBUS



HQ-004 Ordering Code

Example

	1	2	3	4	5	6
HQ-004	06	0	0	0	0	0

1

Color	
06	Red (RAL 3001)
16	Blue (RAL 5005)
11	Yellow (RAL 1033)
21	Grey (RAL 7046)
25	Light grey (RAL 7035)
33	Green (RAL 6034
SP	Other colors
C5	C5 coating

2

Cable entry	
0	PG11
M	M20

3

Power	
0	1-Phase 85-265 V ac / 24 V dc
1	12 V dc

4

Speed	
0	Standard
H	**HSA**: High Speed Actuator

5

Cable length	
0	1.2m (standard)
1	3m
2	6.2m
3	10m

6

Base (flange)	
0	ST11 (Star 11)
1	ST14 (Star 14)

HQ-006 Ordering Code

Example

	1	2	3	4	5	6	7	8
HQ-006	06	0	0	0	00	0	0	0

1

Color	
06	Red (RAL 3001)
16	Blue (RAL 5005)
11	Yellow (RAL 1033)
21	Grey (RAL 7046)
25	Light grey (RAL 7035)
33	Green (RAL 6034
SP	Other colors
C5	C5 coating

2

Enclosure	
0	General purpose
A	Flameproof: Ex d IIB

3

Cable length	
0	2 x PG13.5
P	2 x PF1/2"
N	2 x NPT1/2"
M	2 x M20

4

Power	
0	1-Phase 110/220 V ac
1	24 V dc
2	24 V ac/dc

5

Local Control Unit	
00	N/A
D0	Local Control Unit D: **LCU-D**
D1	Local Control Unit Z: **LCU-Z**

6

Control	
0	On-off
P	**PIU**: Potentiometer unit (0-1 kΩ)
C	**CPT**: Currentt Position Transmitter (output: 4-20 mA dc)
M	**PCU**: Proportional Control Unit (intput/output: 0 – 10 V dc or 4 – 20 mA dc)

7

Communication	
0	N/A
M	Modbus

8

IP Rating	
0	IP67 NEMA 4, 4X
1	IP68 (10 m 72 hr)

HQ-008 to HQ-900 Ordering Code

Example

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭
HQ -	015	06	0	00	0	0	0	0	00	0	0	0	0	0

①

Model	
008	HQ-008
010	HQ-010
015	HQ-015
020	HQ-020
030	HQ-030
050	HQ-050
060	HQ-060
080	HQ-080
120	HQ-120
200	HQ-200
270	HQ-270
300	HQ-300
350	HQ-350
400	HQ-400
600	HQ-600
800	HQ-800
900	HQ-900

②

Color	
06	Red (RAL 3001)
16	Blue (RAL 5005)
11	Yellow (RAL 1033)
21	Grey (RAL 7046)
25	Light grey (RAL 7035)
33	Green (RAL 6034)
SP	Other colors
NC	Nano Coating

③

Enclosure	
0	General purpose
A	Flameproof: Ex db IIB
T	Dust ignition proof: Ex tb IIIC

④

Local Control Unit	
00	N/A
A0	Local Control Unit-Z: **LCU-Z**
A1	Local Control Unit-B: **LCU-B**
B0	Local Control Unit-C: **LCU-C**
D0	Rechargeable Battery Pack: **RBP**
E0	Explosion proof Local Control Unit-B: **LCU-B(EX)**
E1	Explosion proof Local Control Unit B: **LCU-2B(EX)**

⑤

Control	
0	On-off
P	**PIU**: Potentiometer unit (0-1 kΩ)
C	**CPT**: Currentt Position Transmitter (output: 4-20 mA dc)
M	**PCU**: Proportional Control Unit (input/output: 0 – 10 V dc or 4 – 20 mA dc)

⑥

Cable entry	
00	2 x PF3/4"
01	2 x NPT3/4"
02	2 x M25
03	2 x M20
14	2 x PF3/4" + PF1"

⑦

Speed	
0	Standard
1	High speed, **2L**
2	High speed, **3L**

⑧

Rotation	
0	90° CW to CLOSE (standard)
1	**R**: 90° CCW to CLOSE
2	**EXT**: > 90° CW to CLOSE

⑨

Input Voltage	
10	1-Phase 100V
11	1-Phase 110V
12	1-Phase 200V
13	1-Phase 220V
14	1-Phase 240V
30	3-Phase 220V
31	3-Phase 380V
32	3-Phase 400V
33	3-Phase 420V
34	3-Phase 440V
35	3-Phase 460V
36	3-Phase 480V
D1	12V dc
D2	24V dc
D3	24V ac/dc

⑩

Communication	
0	N/A
M	Modbus
P	Profibus

⑪

Additional S/W	
0	N/A
1	**ALS**: +2-SPDT (limit s/w)
2	**ATS**: +2-SPDT (torque s/w)
3	**ALS ATS**: +2x2-SPDT

⑫

Temperature	
0	Standard: -20 to +70 °C
	Flameproof: -20 to +60 °C
L	**LT** Low temperature: -40 to +60 °C

⑬

IP Rating	
0	IP67
1	IP68 (10 m 72 hr)

⑭

Other Options	
0	N/A
F	**FPA**: Fire Proofing Actuator

HKC

VALVE AUTOMATION

HKC

ISO 9001 ISO 14001 ISO 45001

KHNP KOREA WESTERN POWER CO., Ltd. EWP KOREA EAST-WEST POWER CO.,LT KOMIPO KOEN KOREA SOUTH-EAST POWER CO.

KOSPO KOGAS KNOC KOREA DISTRICT HEATING CORP. KAC KOREA AIRPORTS CORPORATION K water

Arisu SK ecoplant GS E&C DSME DAEWOO SHIPBUILDING & MARINE ENGINEERING CO.,LTD. HYUNDAI ENGINEERING CO., LTD. SAMSUNG SAMSUNG ENGINEERING

posco DOOSAN LG Chem KOLON eENGINEERING YNCC DL Construction S-OIL

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