



Electric Actuated Stainless Steel PN25/40 Ball Valve – Mars Series 90D - 60

- Direct Mounting between Valve and Actuator
- Stainless Steel Body – Full Bore
- DN15-DN150 / 1/2" - 6"
- RPTFE Seats
- Flanged PN25/40
- Powerful Electric Actuator
- Manual Override & Limit Switches Included
- Various Voltage Options

Description

A stainless steel, full bore 2 piece split body flanged ball valve is an investment cast valve. It has RTFE seats, self adjusting stem packing & Blow-out proof stem design. The valve has a direct mounting plate that provides easy attachment of the electric actuator which combines strength, reliability and extended life span. On the smaller sized valves we fit the HQ-005 compact and lightweight electric actuator. The HQ-008 to HQ-050 is a more rugged unit for larger sized valves. Both types of electric actuators are specially designed for quarter turn applications such as this ball valve offering high output torques. A choice of various control options and a wide range of voltages to suit your specific requirements. High Quality electrical components and alloy gearing ensure reliability and extended life span.

The actuator has additional features such as position indicator, limit switches, anti condensation heaters and a manual override (for opening or closing in the event of power failure). The valve is fully maintainable and maintenance kits are readily available.

Options Include:

ATEX Eexd Actuator
Battery Fail Safe
V Sector Control Ball



Description

The series 90D is a high performance heavy duty full bore stainless steel ball valve, flanged PN40. Offered in sizes ranging from 1/2" to 6" with seats in RPTFE and graphite seals. This valve is fitted directly onto a powerful electric rotary HQ actuator. Suitable for On/Off applications and can be supplied in various voltages and offers reliability and long life. The actuator has standard additional features such as limit switches, anti condensation heater, optical indicator and manual override.



Beschreibung

Die Serie 90D ist ein Hochleistungskugelhahn aus Edelstahl mit vollem Durchgang, Flansch PN40. Erhältlich in Größen von 1/2" bis 6" mit Sitzen aus RPTFE und Graphitdichtungen. Dieses Ventil wird direkt auf einen leistungsstarken elektrischen HQ-Drehantrieb montiert. Geeignet für Ein/Aus-Anwendungen und kann in verschiedenen Spannungen geliefert werden und bietet Zuverlässigkeit und lange Lebensdauer. Der Antrieb verfügt standardmäßig über zusätzliche Funktionen wie Endschalter, Antikondensationsheizung, optische Anzeige und Handhilfsbetätigung.



Descripción

La serie 90D es una válvula de bola de acero inoxidable de paso total para trabajo pesado de alto rendimiento, con brida PN40. Se ofrecen en tamaños que van desde 1/2 "a 6" con asientos en RPTFE y sellos de grafito. Esta válvula se monta directamente en un potente actuador rotativo HQ eléctrico. Adecuado para aplicaciones de encendido / apagado, se puede suministrar en varios voltajes y ofrece confiabilidad y larga vida útil. El actuador tiene características adicionales estándar como interruptores de límite, calentador anticondensación, indicador óptico y anulación manual.



Description

La série 90D est une vanne à boisseau sphérique à passage intégral en acier inoxydable haute performance, à bride PN40. Offert dans des tailles allant de 1/2" à 6" avec des sièges en RPTFE et des joints en graphite. Cette vanne est montée directement sur un puissant actionneur électrique rotatif HQ. Convient aux applications On/Off et peut être fourni sous différentes tensions et offre fiabilité et longue durée de vie. L'actionneur dispose de fonctionnalités supplémentaires standard telles que des interrupteurs de fin de course, un chauffage anti-condensation, un indicateur optique et une commande manuelle.



PN40 Stainless Steel

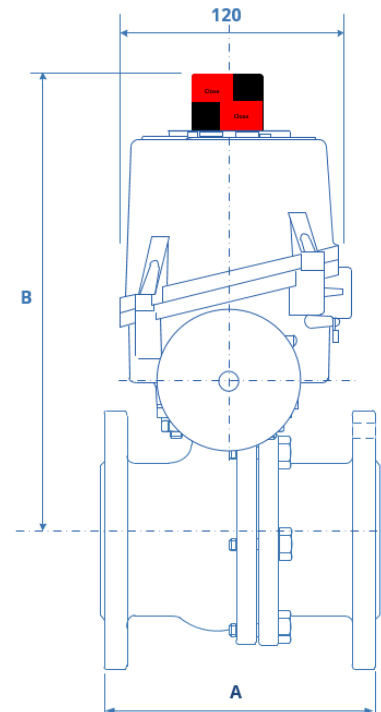
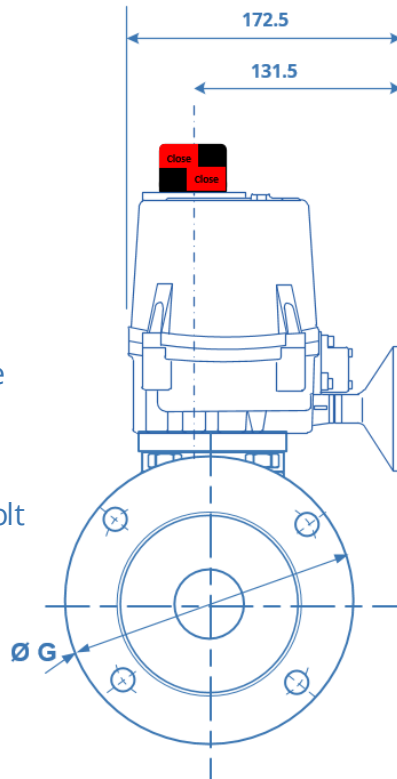
1/2" - 1 1/4"

Valve fitted onto HQ005 electric actuator. Direct mount.

Information at a glance

90D ball Valve SKU: BV5125
 Actuator HQ005 SKU: AP9011
 Seat Material: RPTFE+ Graphite
 Body 316 St St Flanged PN40 raised face
 Temperature 180°C
 Raised face and needs gasket

Actuator Voltage 24 AC/DC 110 & 240Volt
 Limit switches fitted
 De clutchable Manual Handwheel
 Optical Position Indicator
 Anti Condensation Heater Fitted



Dimensions

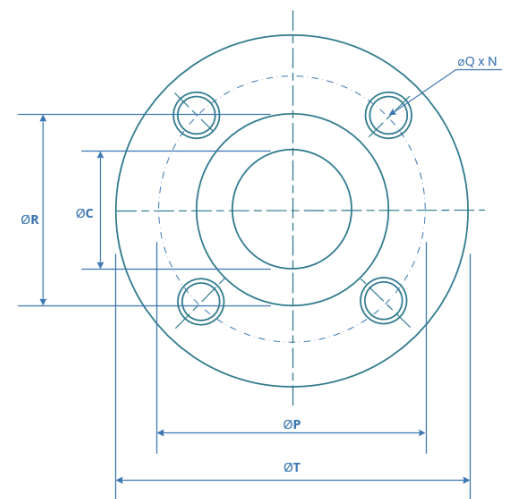
MARS series 90D-60 PN25/PN40-Electric Actuator

VALVE	Electric Full Bore	Full Bore A	B	G	N/M	GPM	ISO	Weight Kg	MTG
1/2"	HQ005	115	231	95	10	28	F04/F05	4.95	DM
3/4"	HQ005	120	236	105	14	50	F04/F05	5.6	DM
1"	HQ005	125	241	115	17	95	F04/F05	6.46	DM
1 1/4"	HQ005	130	255	140	23	132	F07	7.78	DM

Flange Dimensions

MARS series 90D-60 PN25/PN40-Electric Actuator

VALVE	Electric Full Bore	C	R	T	P	NO. HOLES	HOLE ØQ
1/2"	HQ005	15	45	95	65	4	14
3/4"	HQ005	20	58	105	75	4	14
1"	HQ005	25	68	115	85	4	14
1 1/4"	HQ005	32	78	140	100	4	18



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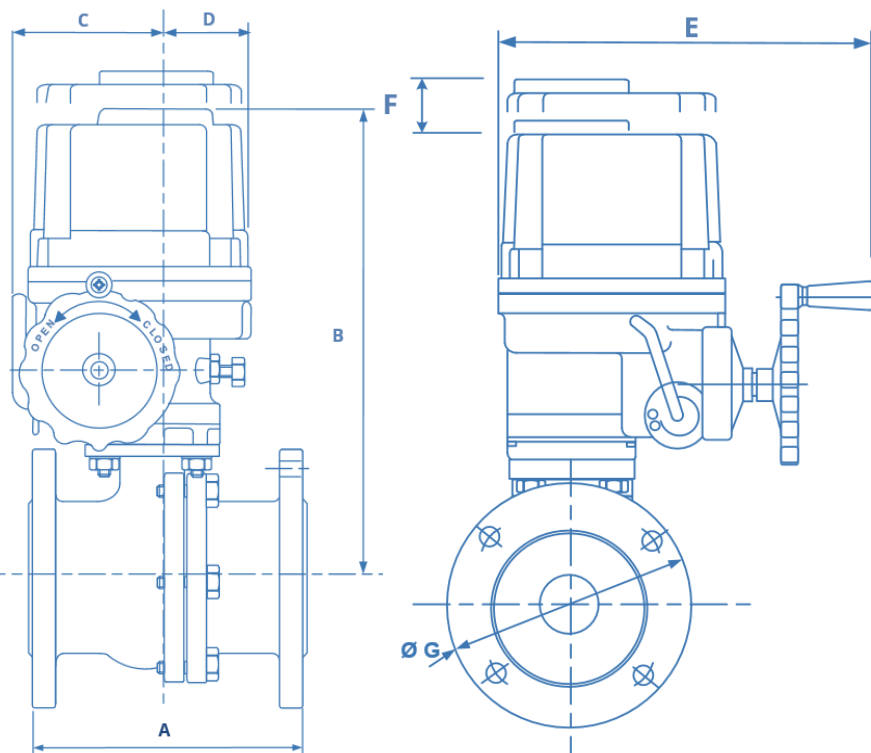
PN40 Stainless Steel 1½" - 6"

Valve fitted onto HQ008-HQ050 electric actuators.

Information at a glance

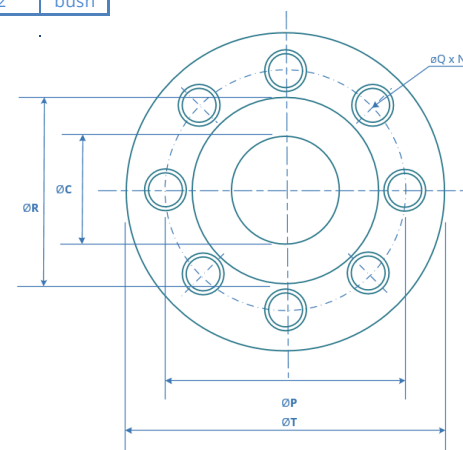
90D ball Valve SKU: BV5125
Actuator HQ008-120 SKU: AP9016
Seat Material: RPTFE + Graphite
Body 316 St St Flanged PN40 raised face
Temperature 180°C
Raised face and needs gasket

Actuator Voltage 24 AC/DC 110 & 240 Volt
Limit switches fitted
De clutchable Manual Handwheel
Optical Position Indicator
Anti Condensation Heater Fitted



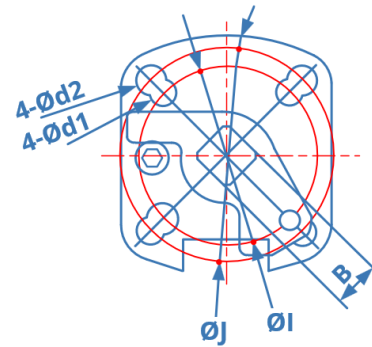
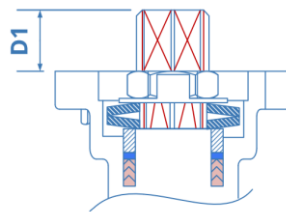
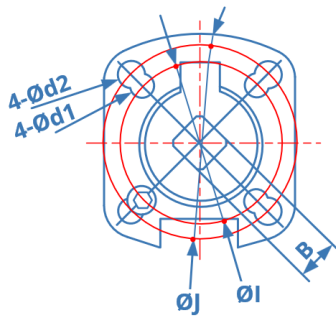
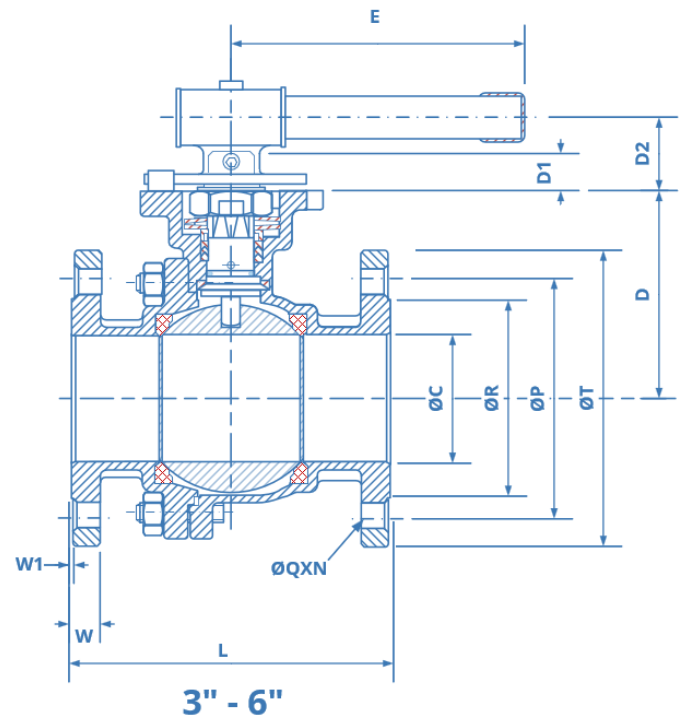
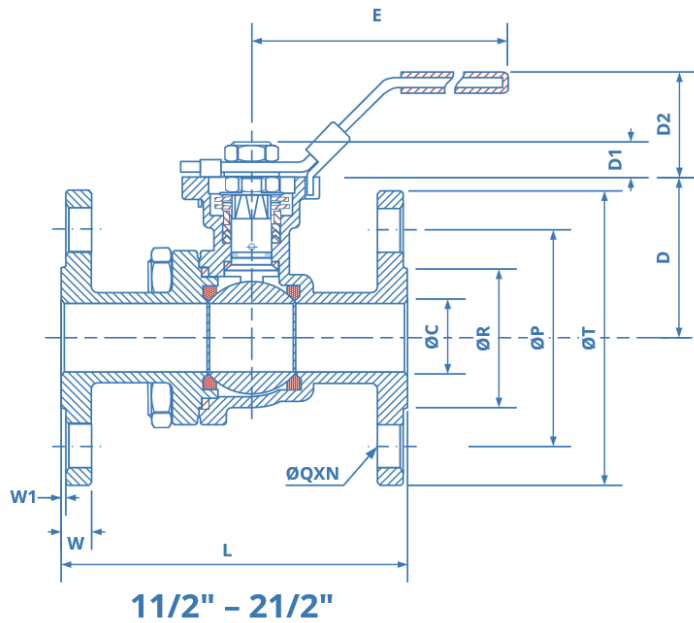
Dimensions											
MARS series 90D-60 PN25/40-Electric Actuator											
VALVE	Electric Full Bore	A	B	C	D	E	F	G	GPM	Weight Kg	MTG
1½"	HQ008	140	324.5	100	70	258	120	150	260	15.22	bush
2"	HQ008	150	331.6	100	70	258	120	165	485	18.06	bush
2½"	HQ008	170	351	100	70	258	120	185	800	22.07	bush
3"	HQ015	180	400.5	142	87	338	160	200	1250	36.18	kit
4"	HQ015	190	425	142	87	338	160	220	2250	43.85	kit
6"	HQ030	350	500.5	160	99	368	180	285	5400	92	bush

Flange Dimensions							
MARS series 90D-40 PN16-Electric Actuator							
VALVE	Electric Full Bore	C	R	T	P	NO. HOLES	HOLE ØQ
1½"	HQ008	38	88	150	110	4	18
2"	HQ008	50	102	165	125	4	18
2½"	HQ008	65	122	185	145	8	18
3"	HQ015	80	138	200	160	8	18
4"	HQ015	100	158	220	180	8	18
6"	HQ030	150	212	285	240	8	22



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TYPE 90D - 60 F4 VALVE DETAILS

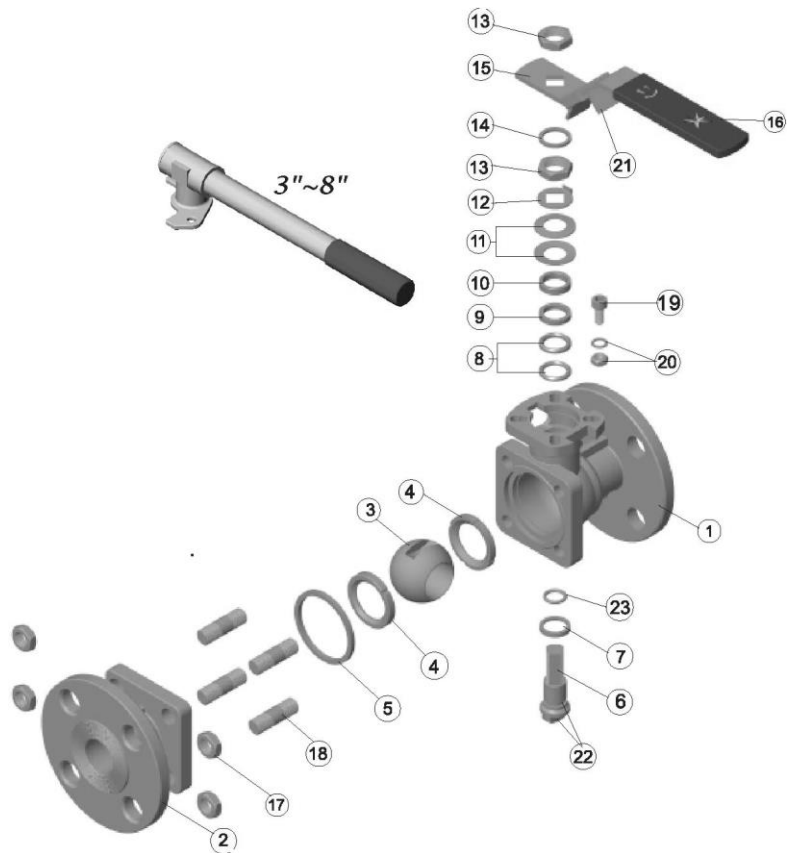


90D - 60 F4 / F5 Dimensions PN25/40

Size	ØC	B	E	D	D1	D2	ØI	ØJ	L		N	ØP	ØQ	ØR	ØT	W	W1	Ød1	Ød2	Wt (kg)	ISO5211
									F4	F5											
1/2"	15	11	165	48.7	9.9	36	42	50	115	/	4	65	14	45	95	16	2	6	7	2.35	F04/F05
3/4"	20	11	165	53.7	9.9	36	42	50	120	/	4	75	14	58	105	18	2	6	7	3.05	F04/F05
1"	25	11	165	58.8	10.3	36	42	50	125	/	4	85	14	68	115	18	2	6	7	3.89	F04/F05
1 1/4"	32	14	215	72.6	12.9	49	50	70	130	/	4	100	18	78	140	18	2	7.5	9	5.78	F05/F07
1 1/2"	38	17/19	262	89.1	19	58	70	102	140	/	4	110	18	88	150	18	3	10	12	7.88	F07/F10
2"	50	17/19	262	96.6	19	58	70	102	150	/	4	125	18	102	165	20	3	10	12	10.16	F07/F10
2 1/2"	65	17/19	262	116	19	58	70	102	170	/	8	145	18	122	185	22	3	10	12	-	F07/F10
3"	80	22	365	132.5	23	46.2	102	125	180	/	8	160	18	138	200	24	3	12	14	21.58	F10/F12
4"	100	22	365	157	23	46.2	102	125	190	/	8	180	22	162	235	24	3	12	14	30.63	F10/F12
6"	150	27	750	210.2	28.5	66.5	125	140	/	350	8	250	26	218	300	28	3	14	18	79.31	F12/F14

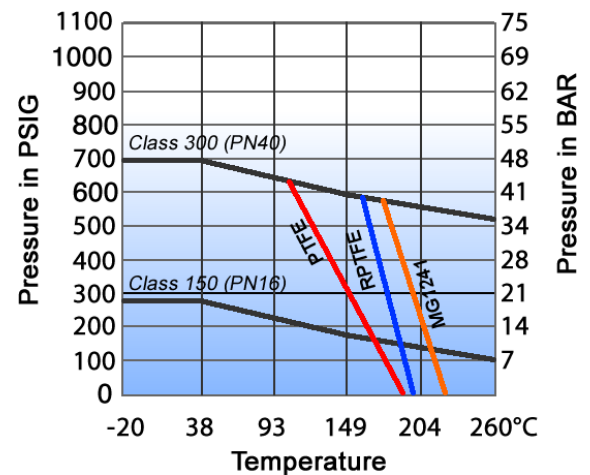
Materials

No	Part Name	Material	Qty
1	Body	CF8M / WCB	1
2	Cap	CF8M / WCB	1
3	Ball	SUS316	1
4	Seat	RPTFE	1
5	Joint Gasket	PTFE	2
6	O-Ring	Viton	2
7	Stem	SUS304	1
8	Stem Seal	RPTFE	2
9	O-Ring	SUS304	1
10	Stem Packing	Graphite	5
11	Gland Packing	RPTFE	1
12	Gland Bush	SUS304	1
13	Belleville washer	PTFE	1
14	Stop Washer	SUS304	*
15	Stem Nut	SUS304	1
16	Stem Washer	Vinyl	1
17	Handle	25% RTFE	1
18	Stop Pin	SUS304	1
19	Locking Device	SUS304	1
20	Handle Sleeve	SUS304	1
21	Pin Nut		
22	Anti-static Device		



Standard Specification

Standard Specification			
Construction	Split Body Flanged Ball Valves, Full Port Investment Cast: 1/2" to 6" Sand Cast 5" to 10"	Compliance Standards	ANSI B16.34, ANSI B16.5, ANSI B16.10, API 6D, API 509, API 607, BS5351, BS6755, ISO5211, DIN3337, DIN 3202, DIN 2501, MSS SP25, MSS SP55
Size Range	1/2" - 6"	Material Certificate	EN 10204 - 3.1
Pressure rating	6098 - 90D Carbon Steel ANSI 150 6097 - 90D Stainless Steel ANSI 150 6099 - 90D Stainless Steel ANSI 300 6087 - 90D Stainless Steel PN16 6085 - 90D Stainless Steel PN40	Quality System	ISO 9001
Valve Material	Standard: ASTM A351 Gr. CF8M / DIN 1.4408 Options: WCB, 316L S/S, Titanium, Duplex, Hastelloy C, Alloy 20	Options	NCE MR - 0175 Stand Valve is non-fire safe design, fire safe valve is optional
Seat Material	Standard: R-TFE / PTFE Options: TFM 1600, PEEK, Carbon Filled PTFE, DERLIN, UHMWPE, 50/50 S/S filled PTFE, Metal Seats... and others	Inspection and Test	API 598, BS6755 Part 1



HQ005 - ELECTRIC ACTUATOR DETAILS

Features

Multi voltage design (Single phase & 24V)
 High corrosion resistance, anodized & painted housing
 4 off Limit switches
 Torque output: 50 Nm
 low current, long-life actuator due to unique brushless DC motor ensuring high reliability
 2 off M20 cable entries
 IP67 weatherproof enclosure
 F03/F04/F05/F07 mounting base with 14mm Star drive
 Captive cover bolts
 Visual beacon indicator & LED lamps
 70% Duty Rating (on/off only)
 Declutchable manual override handwheel
 Electronic torque limiter

OPTION SPECIFICATION

PIU	:	Potentiometer Unit (1K – 10K)
PCU	:	Proportional Control Unit (In/Out: 0-10VDC, 4-20mA)
CPT	:	Current Position Transmitter (Output 4-20mA)
TS	:	Torque overload indicator module (single & redundancy)

Standard Actuator Specification

Enclosure	:	Weatherproof IP67
Power Supply	:	85 - 265 VAC 1 ph, 50/60Hz / 24 VAC/DC
Operating Time	:	90° - 30 seconds
Limit Switches	:	4 x SPDT, 250V AC 10A (2 std. & 2 additional)
Space Heater	:	2W Anti Condensation
Manual Override	:	Handwheel Declutchable
Duty Cycle (on/offduty)	:	S4, 70% (avarage load of 80% for Max. torque) S2, 50% (avarage load of 80% for Max. torque)
Travel Angle	:	330°
Conduit Entries	:	2 x M20
Ambient Temperature	:	-20°C to + 80°C
External Coating	:	Dry Powder, Polyester

PERFORMANCE

MODEL	HQ005
TORQUE(Nm)	50
SPEED 90° 50/60Hz	13
CURRENT 110/1/50	0.1A
(A) 220/1/50	0.05A
24 VAC/DC	0.8 A
WEIGHT	2.6
MAX.SQ.DRIVE	14
ISO 5211 mtg. base	F03, F04, F05, F07

**FOR MORE HQ005
ACTUATOR DETAILS SEE
SKU: AP9011
Wiring Diagrams
Dimensional Data
Operating Manual**



HQ008 – HQ120 ELECTRIC ACTUATOR DETAILS

FEATURES

IP67 Weatherproof
 Temperature Range – 20° C – 70° C
 Mechanical limit stops
 Four limit switches
 Manual override
 Anti-condensation heater
 (Thermostatically Controlled)



OPTION SPECIFICATION

PIU	:	Potentiometer Unit (1K – 10K)
PCU	:	Proportional Control Unit (In/Out: 0-10VDC, 4-20mA)
CPT	:	Current Position Transmitter (Output 4-20mA)
LCU	:	Local Control Unit (Remote/Open/Stop/Close Switch)
EXA	:	Explosion Proof Enclosure. ATEX II 2G Eexd IIB T4
FPA	:	Fire Proof Actuator. 250°C/150 min

Standard Actuator Specification

Enclosure	:	Weatherproof IP67
Power Supply	:	110/220V 1PH, 24VAC/24VDC 380/440V AC 3PH
Operating Time	:	see chart
Limit Switches	:	4 x SPDT, 250V AC 10A
Space Heater	:	10W (110/240V AC) Anti Condensation
Manual Override	:	Handwheel Declutchable
Duty Cycle (on/offdu	:	S4, 70% standard, 100% for Max 30 Mins
Travel Angle	:	90°
Conduit Entries	:	2 x M25 (PG13.5 or 1/2"NPT Option)
Ambient Temperat	:	-20 °C to + 70 °C
External Coating	:	Dry Powder, Polyester

PERFORMANCE

MODEL	HQ008	HQ015	HQ020	HQ030	HQ050	HQ060	HQ080	HQ120
TORQUE(Nm)	80	150	200	300	500	600	800	1200
SPEED 90° 50/60	16/13	25/21	25/21	31/26	31/26	31/26	34/28	34/28
CURRENT 110/1/5	1.1	1.65	1.67	1.86	3.62	3.62	4.1	4.2
(A) 220/1/50	0.55	0.88	0.89	0.92	1.58	1.62	2.2	2.35
MAX 380/3/50	N/A	0.31	0.31	0.35	0.59	0.6	0.85	0.87
WEIGHT	7.4	16.6	16.6	22	23	23	29	29
MAX.SQ.DRIVE	17	19	19	30	30	30	40	40

**FOR MORE HQ ACTUATOR DETAILS
 SEE SKU: AP9016**
Wiring Diagrams
Dimensional Data
Operating Manuals