



ORANGE SERIES



ELECTRIC ACTUATOR

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INSTRUCTIONS:

VOLTAGE OPTIONS GROUP:								
V1	V2	V3	V4	V5	V6	V7	V8	V9
12VDC 24VDC 24VDC/AC 95-265VDC/AC 24VAC 110VDC 230VDC	12VDC 24VDC/AC 95-265VDC/AC 24VAC 110VAC 230VAC	12VDC 24VDC/AC 95-265VDC/AC	24VDC 24VDC/AC 95-265VDC/AC	24VDC/AC 95-265VDC/AC	24VDC/AC	12VDC	24VDC	24VAC 110VAC 230VAC

EXPLOSION PROOF	ONLY 11 x 11 mm OCTAGON F AVAILABLE FOR 20 Nm	
MANUAL OVERRIDE	HEXAGON SPANNER - USE WHEN POWER - OFF	
	BUTTON - USE WHEN POWER ON	
PROTECTION	F TYPE:	SUITABLE FOR AMBIENT HIGH HUMIDITY ($\geq 90\%$) BUT WITHOUT LONG-TERM RAIN
TEST CONDITIONS	TEST UNDER RATED LOAD, 25°C WORKING TEMPERATURE AND 50% HUMIDITY, ONE TEST CIRCLE (TWO TIMES SWITCHING CYCLE), WHICH WILL BE INFLUENCED BY DIFFERENT LOAD AND WORKING ENVIRONMENT.	
SPEED REGULATION	PWM	CONTINUOUS STEPLESS SPEED REGULATION, OPERATES STEADILY BUT HAS A SLIGHT IMPACT ON ACTUATOR TORQUE OUTPUT. ADJUSTING RANGE IS 30%-100%.
	PUL	INTERMITTENT START-STOP SPEED REGULATION,  NO LOSS OF ACTUATOR OUTPUT TORQUE. ADJUSTING RANGE IS 5%-100%.

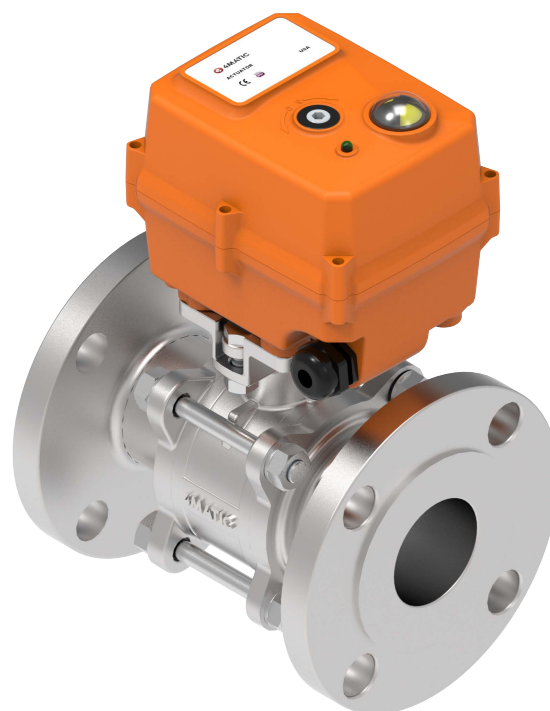
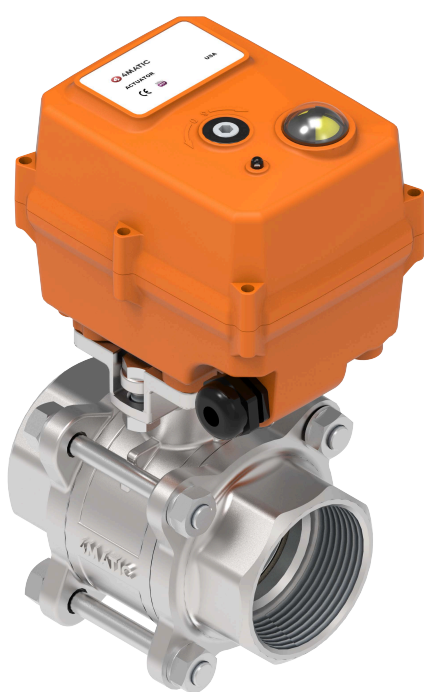
FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
FEEDBACK	POSITIVE CONTACT, ACTIVE, POTENTIOMETER, CLOSED CONTACT
PROTECTION	IP67 / F TYPE
POSITION INDICATOR	MECHANICAL INDICATOR
MOTOR	BRUSHLESS HEAVY DUTY, OVERLOAD OR OVERHEATED PROTECTION
MOTOR PROTECTION	SELF-LOCK MECHANISM
	TWO OR MORE ACTUATORS CANNOT BE USED IN PARALLEL
CYCLE TIME	UPTO 20,000 TIMES (DEPEND ON TEST CONDITIONS*)



SMART – BASIC							
TORQUE (lbf-ft)	8	15 11 (V7)	37	59	81	148	295
TORQUE (Nm)	10	20 15 (V7)	50	80	110	200	400
VOLTAGE*	V1	V1	V2	V1	V2	V5	V5
POWER	12W	15W	25W 40W (V9)	60W	100W	50W	80W
WIRING	Q2, Q3, QD3		Q3, QD3	Q2, Q3, QD3	Q3, QD3		
TIME	5s 10s (V9)	10s 15s (V7/V9)	12s 20s (V9)	10s 20s (V9)	10s 20s (V9)	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC+PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

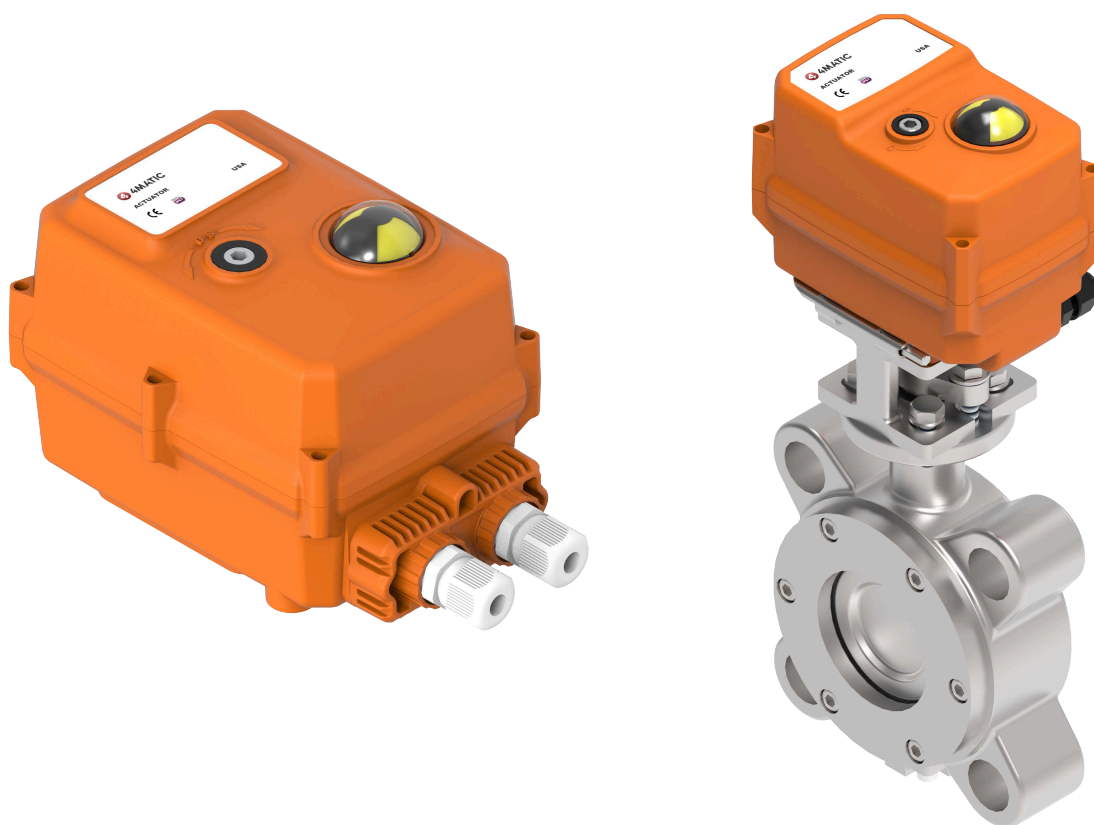
*REFER TO PAGE 1

SMART – HIGH SPEED							
TORQUE (lbf-ft)	5	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	6	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V6	V4		V5			
POWER	24W	25W 85W (V8)	40W 100W (V8)	60W	100W	100W	120W
WIRING	Q2, Q3, QD3		Q3, QD3				
TIME	2s	6s 1s (V8)	5s 1s (V8)	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET		ABS / ALUMINIUM			PC + PET	
OUTPUT SHAFT (mm)	11 X 11 F 12 X 12 M	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



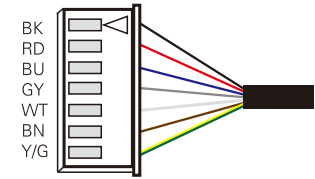
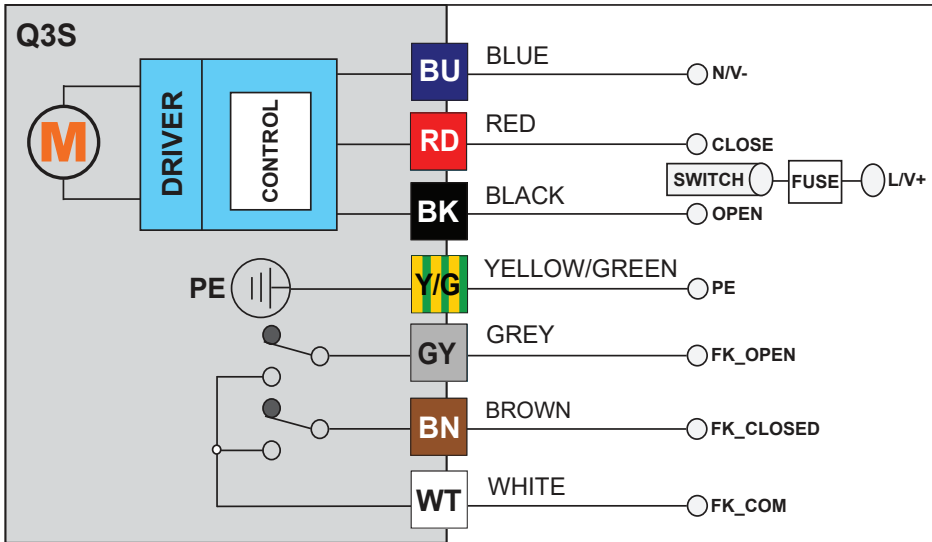
*REFER TO PAGE 1

SMART – FAILSAFE							
TORQUE (lbf-ft)	5	15 11 (V7)	37	59	81	148	295
TORQUE (Nm)	6	20 15 (V7)	50	80	110	200	400
VOLTAGE*	V3		V5				
POWER	18W	36W 25W (V7)	40W	60W	100W	50W	80W
WIRING	JK32						
TIME	5s	10s 15s (V7)	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



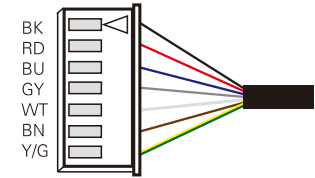
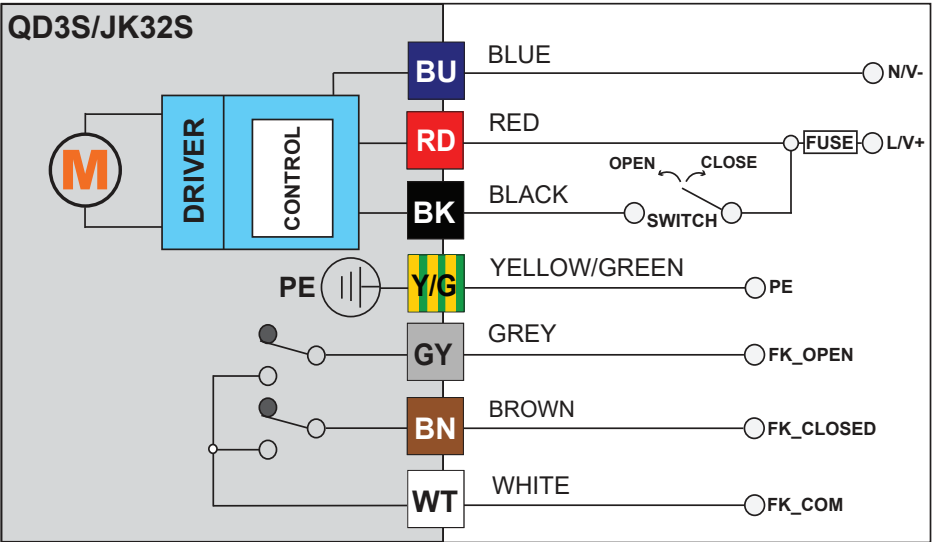
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SCHEMATIC		Q3S, QD3S / JK32S		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED RD	CLOCKWISE	CLOSE	WT CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED BK	ANTICLOCKWISE	OPEN	WT CONNECTED WITH GY	TO OPEN

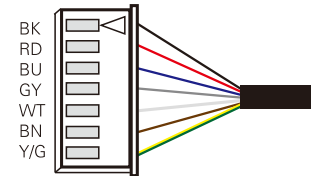
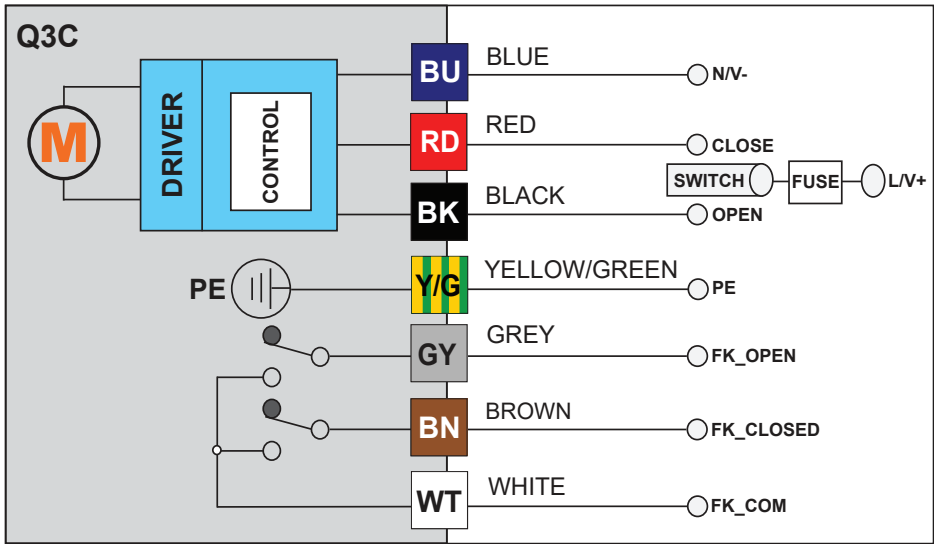


JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH DISCONNECTED	CLOCKWISE	CLOSE	WT CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED	ANTICLOCKWISE	OPEN	WT CONNECTED WITH GY	TO OPEN

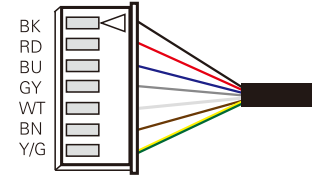
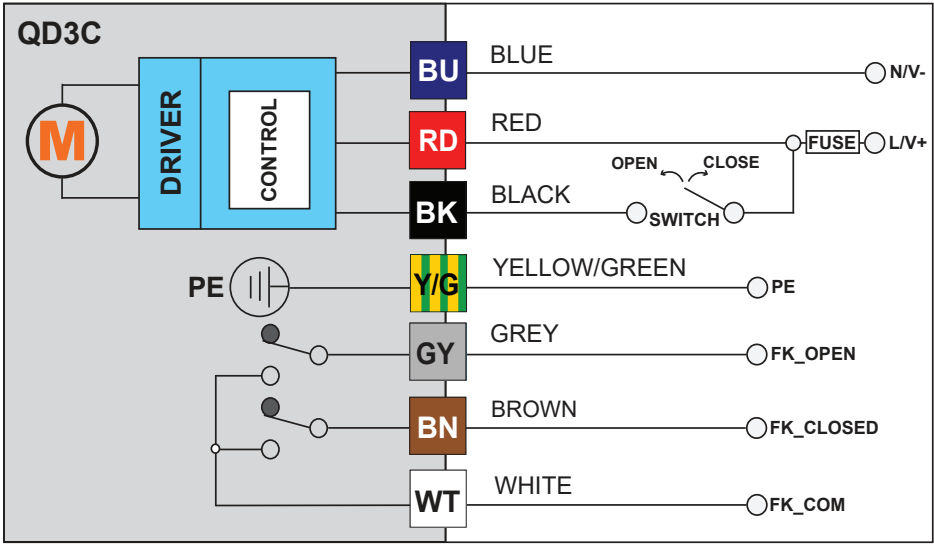
NOTICE
WT DISCONNECTED WITH GY & BN WHEN ACTUATOR IS OPERATING.
DO NOT CUT THE POWER SUPPLY IMMEDIATELY UPON RECEIVING THE FEEDBACK SIGNAL, AS THE SIGNAL ARRIVES SLIGHTLY AHEAD OF THE ACTUAL POSITION.

SCHEMATIC		Q3C, QD3C		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED RD	CLOCKWISE	CLOSE	WT DISCONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED BK	ANTICLOCKWISE	OPEN	WT DISCONNECTED WITH GY	TO OPEN

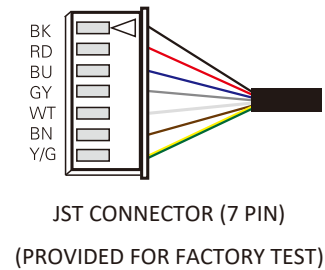
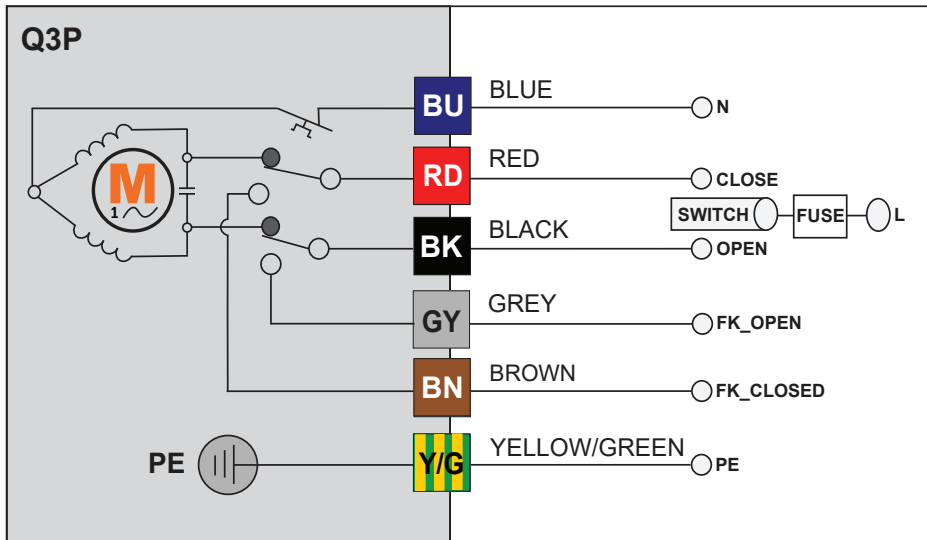


JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

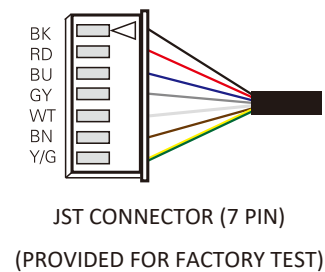
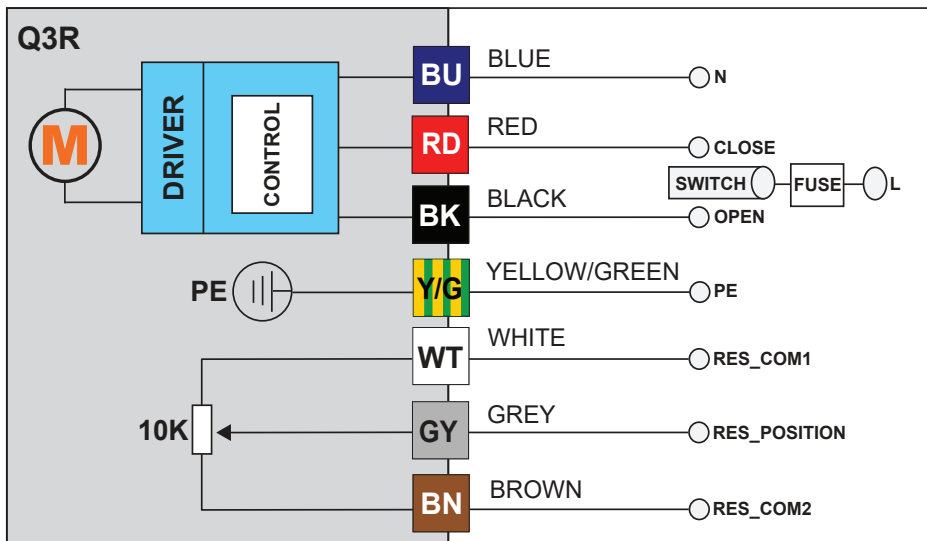
SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH DISCONNECTED	CLOCKWISE	CLOSE	WT DISCONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED	ANTICLOCKWISE	OPEN	WT DISCONNECTED WITH GY	TO OPEN

NOTICE
WT CONNECTED WITH GY & BN WHEN ACTUATOR IS OPERATING.
DO NOT CUT THE POWER SUPPLY IMMEDIATELY UPON RECEIVING THE FEEDBACK SIGNAL, AS THE SIGNAL ARRIVES SLIGHTLY AHEAD OF THE ACTUAL POSITION

SCHEMATIC		Q3P, Q3R		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED RD	CLOCKWISE	CLOSE	RD CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED BK	ANTICLOCKWISE	OPEN	BK CONNECTED WITH GY	TO OPEN

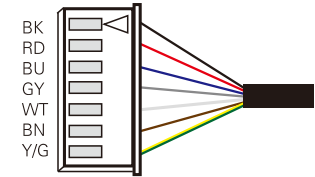
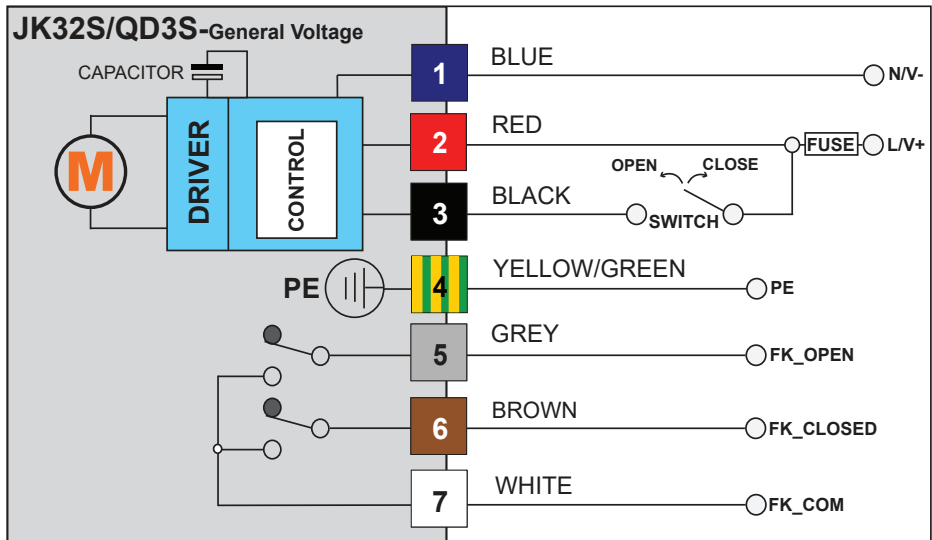


CONNECTION	ACTUATOR ROTATION	RESISTANCE VARIATION	OUTPUT
SWITCH CONNECTED WITH RD	CLOCKWISE	BETWEEN WT & GY → DECREASES	ACTUATOR WILL STOP WHEN VALVE IS CLOSED
SWITCH CONNECTED WITH BK	ANTICLOCKWISE	BETWEEN WT & GY → INCREASES	ACTUATOR WILL STOP WHEN VALVE IS OPEN

NOTICE (FOR Q3P)

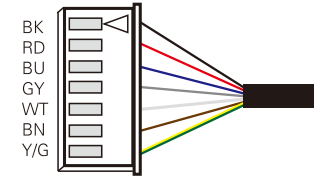
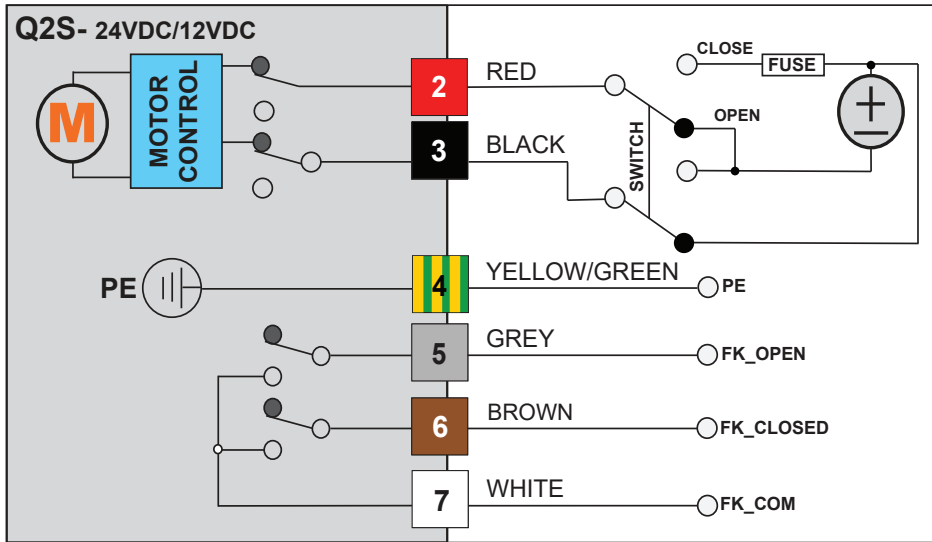
RD DISCONNECTED WITH BN, BK DISCONNECTED WITH GY WHEN THE ACTUATOR IS OPERATING.
FEEDBACK SIGNAL IS SYNCHRONOUS WITH VALVE POSITION.

SCHEMATIC		JK32S / QD3S- GENERAL VOLATGE, Q2S - 24VDC / 12VDC			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH DISCONNECTED	CLOCKWISE	CLOSE	7 CONNECTED WITH 6	TO CLOSE
SWITCH CONNECTED	ANTICLOCKWISE	OPEN	7 CONNECTED WITH 5	TO OPEN

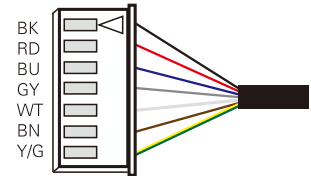
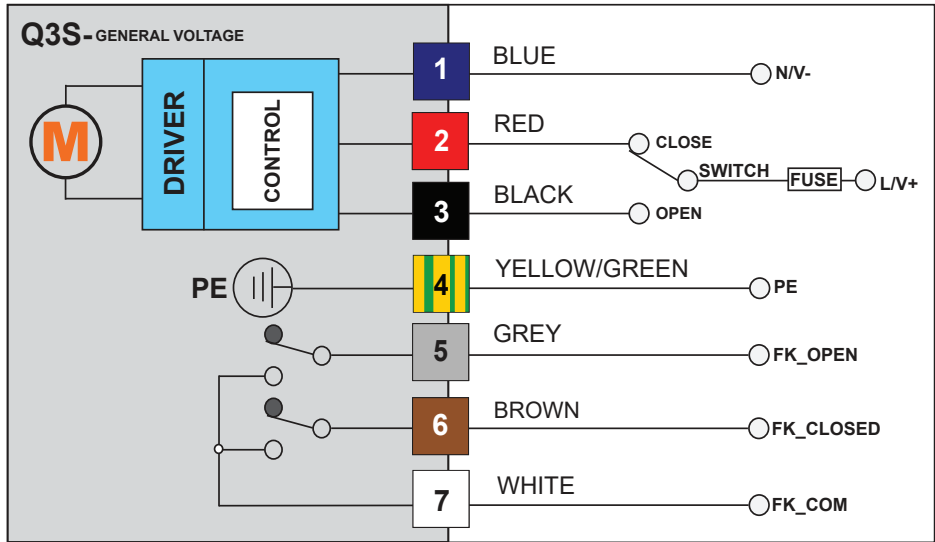


JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED TO CLOSE	CLOCKWISE	CLOSE	7 CONNECTED WITH 6	TO CLOSE
SWITCH CONNECTED TO OPEN	ANTICLOCKWISE	OPEN	7 CONNECTED WITH 5	TO OPEN

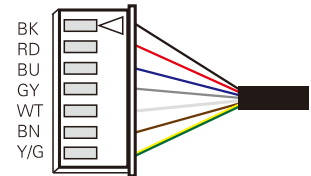
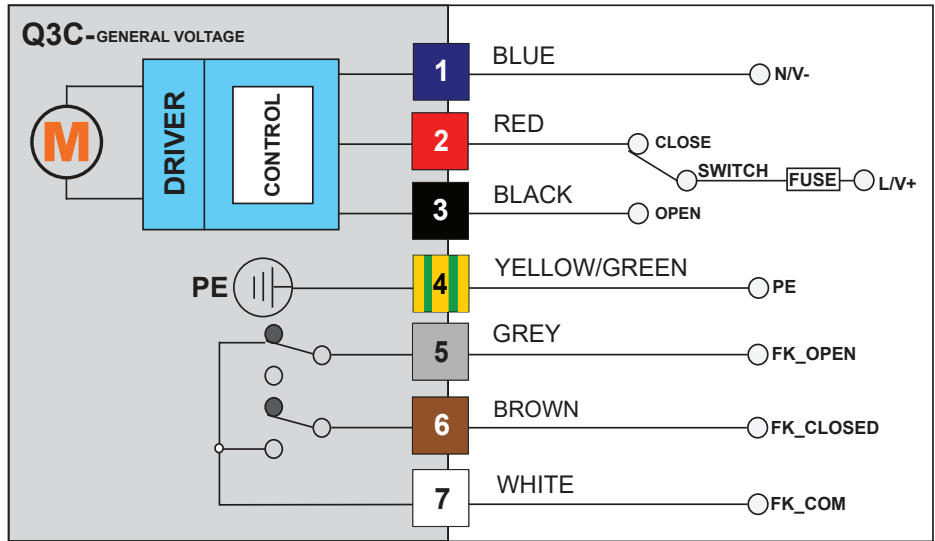
NOTICE				
7 DISCONNECTED WITH 6 & 5 WHEN ACTUATOR IS OPERATING.				
DO NOT CUT THE POWER SUPPLY IMMEDIATELY UPON RECEIVING THE FEEDBACK SIGNAL, AS THE SIGNAL ARRIVES SLIGHTLY AHEAD OF THE ACTUAL POSITION				
WHEN POWER CUT OCCURS, ACTUATOR WILL DRIVE VALVE TO CLOSE. (FOR JK32S / QD3S)				

SCHEMATIC		Q3S – GENERAL VOLTAGE, Q3C – GENERAL VOLTAGE			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED TO CLOSE	CLOCKWISE	CLOSE	7 CONNECTED WITH 6	TO CLOSE
SWITCH CONNECTED TO OPEN	ANTICLOCKWISE	OPEN	7 CONNECTED WITH 5	TO OPEN



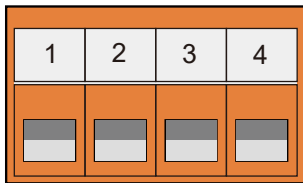
JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED TO CLOSE	CLOCKWISE	CLOSE	7 CONNECTED WITH 6	TO CLOSE
SWITCH CONNECTED TO OPEN	ANTICLOCKWISE	OPEN	7 CONNECTED WITH 5	TO OPEN

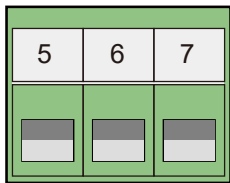
NOTICE
7 DISCONNECTED WITH 6 & 5 WHEN ACTUATOR IS OPERATING. (Q3S)
7 IS CONNECTED WITH 6 & 5 WHEN ACTUATOR IS OPERATING. (Q3C)
DO NOT CUT THE POWER SUPPLY IMMEDIATELY UPON RECEIVING THE FEEDBACK SIGNAL, AS THE SIGNAL ARRIVES SLIGHTLY AHEAD OF THE ACTUAL POSITION.

TERMINAL BLOCK FOR PRODUCT WITHOUT CABLE _ WIRING INSTRUCTION

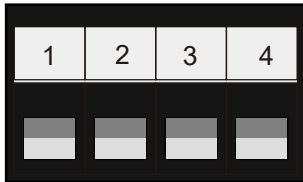
1. FUSE: PLEASE REFER TO MANUAL FOR MORE PARAMETERS.
2. SW SWITCHING CAPABILITY: PLEASE REFER TO MANUAL FOR MORE PARAMETERS.
3. FEEDBACK SIGNAL CONTACT LOAD CAPACITY: 0.1A / 250V AC, 0.5A / 30V DC.
4. PLEASE ENSURE ACTUATOR CONNECTIVITY TO GROUND.
5. ORANGE TERMINAL IS FOR 95-265V (INCLUDE 220V). BLACK TERMINAL IS FOR 12V DC / 24V DC
6. SOME PRODUCTS ADOPT WIRING BOX, USER COULD WIRE ACCORDING TO THE ORDER OF NUMBER.



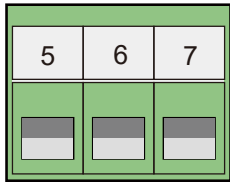
80/110Nm - 95-265 V TERMINAL BLOCK



200/400Nm - 95-265 V TERMINAL BLOCK



80/110Nm - 12-24 V TERMINAL BLOCK

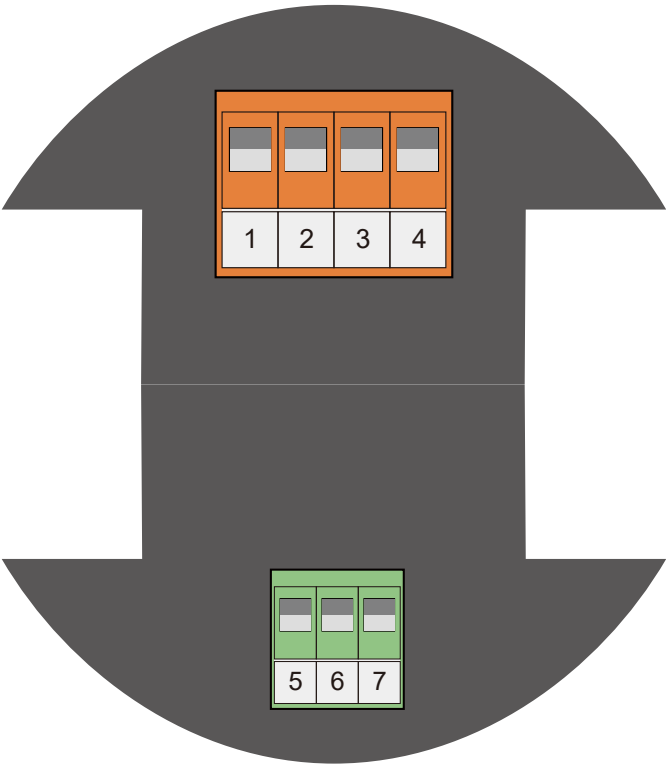


200/400Nm - 12-24 V TERMINAL BLOCK

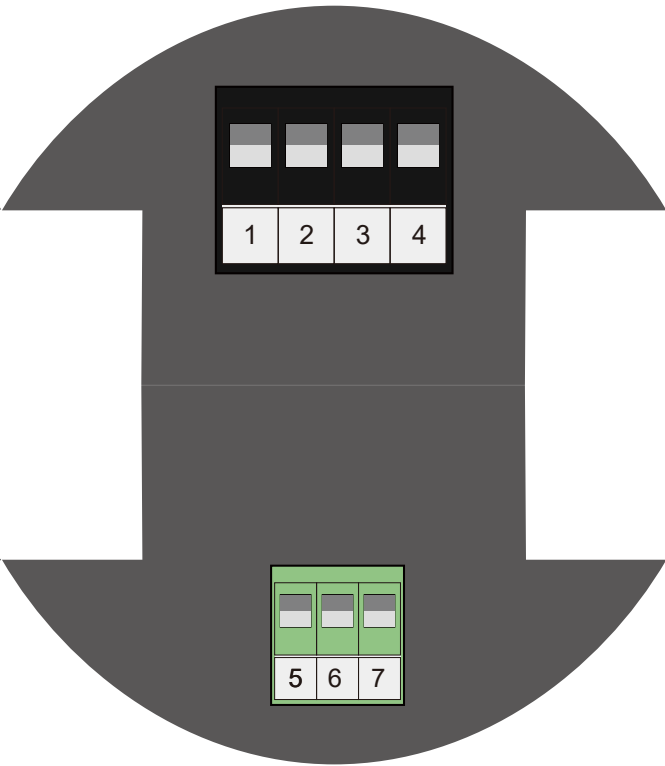
TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE

TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE.

FOR EXPLOSION PROOF



80/110Nm - 95-265 V TERMINAL BLOCK



80/110Nm - 12-24 V TERMINAL BLOCK

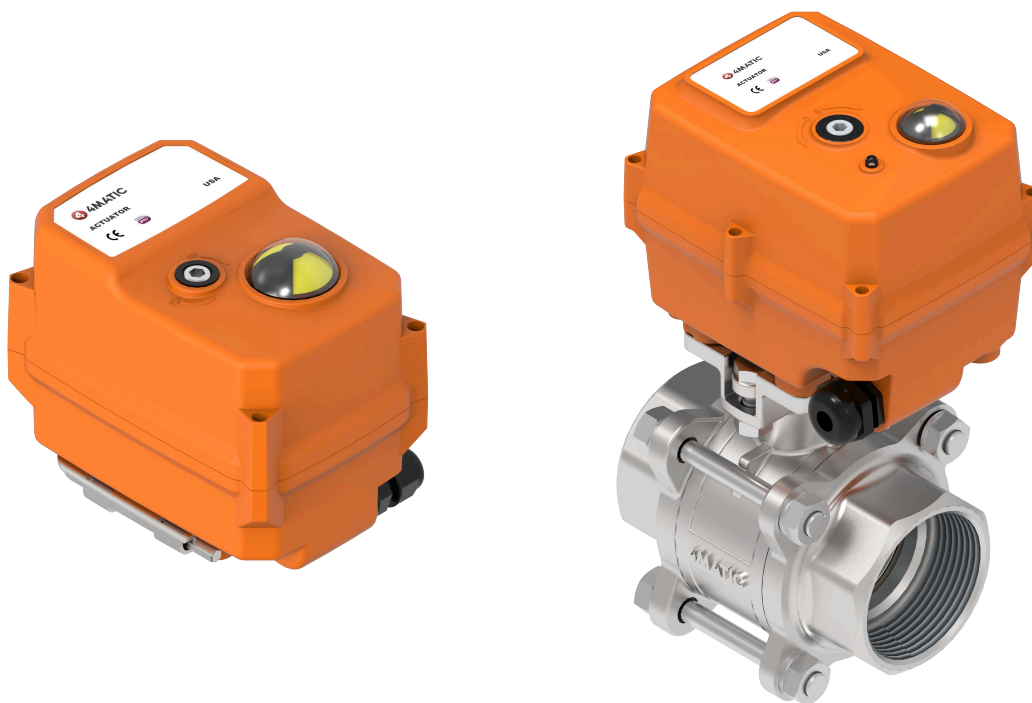
FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
ALARM OUTPUT	A (RELAY CONTACT FEEDBACK)
FEEDBACK	RELAY CONTACT
PROTECTION	IP67 / F TYPE
SPEED REGULATION	PUL / PWM*
POSITION INDICATOR	MECHANICAL INDICATOR OR OLED INDICATOR
CONTROL POSITION	MULTI LOCATION MODE AVAILABLE
MOTOR	BRUSHLESS HEAVY DUTY, OVERLOAD OR OVERHEATED PROTECTION
CYCLE TIME	UPTO 20,000 TIMES (DEPENDS ON TEST CONDITION*)
CONNECTION	TWO OR MORE ACTUATORS CAN BE USED IN PARALLEL



INTELLIGENT – BASIC							
TORQUE (lbf-ft)	8	15	37	59	81	148	295
TORQUE (Nm)	10	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	12W	15W	25W	60W	100W	50W	80W
WIRING	Q3, QD3, Q33, Q44		Q3, QD3, Q33, Q44, Q43				
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

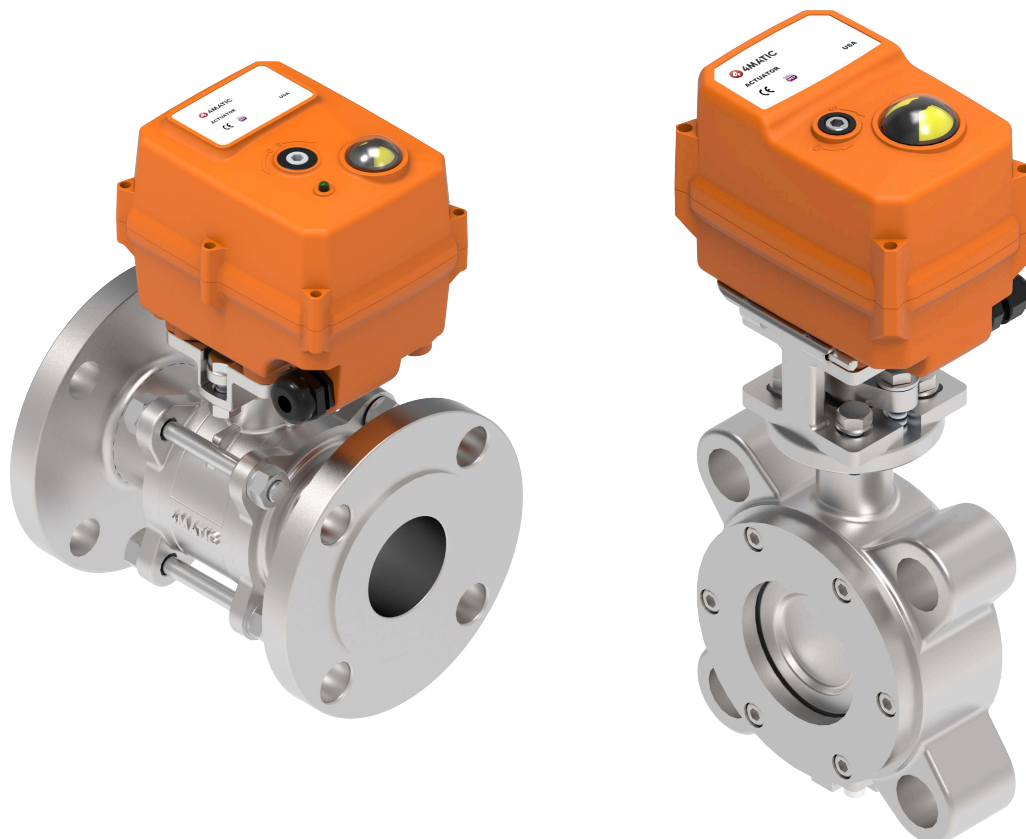
*REFER TO PAGE 1

INTELLIGENT – HIGH SPEED							
TORQUE (lbf-ft)	5	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	6	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V6	V4	V5				
POWER	24W	25W 85W (V8)	40W	60W	100W	100W	120W
WIRING	Q3, QD3, Q33, Q44		Q3, QD3, Q33, Q44, Q43				
TIME	2s	6s 1s (V8)	5s	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 X 11 F 12 X 12 M	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



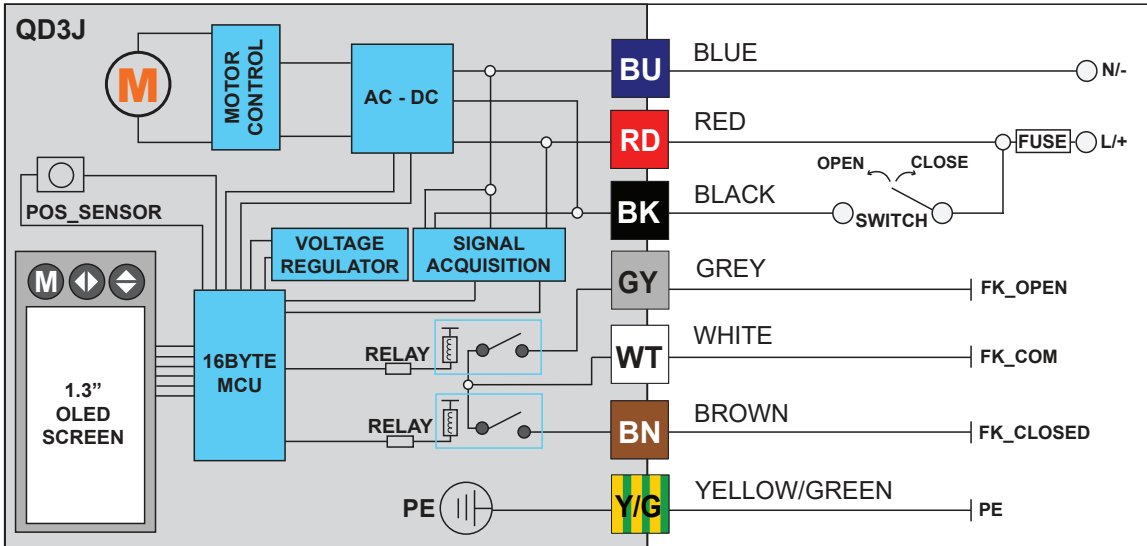
*REFER TO PAGE 1

INTELLIGENT – FAILSAFE							
TORQUE (lbf-ft)	5	15	37	59	81	148	295
TORQUE (Nm)	6	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	18W	36W	40W	60W	100W	50W	80W
WIRING	JK32						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

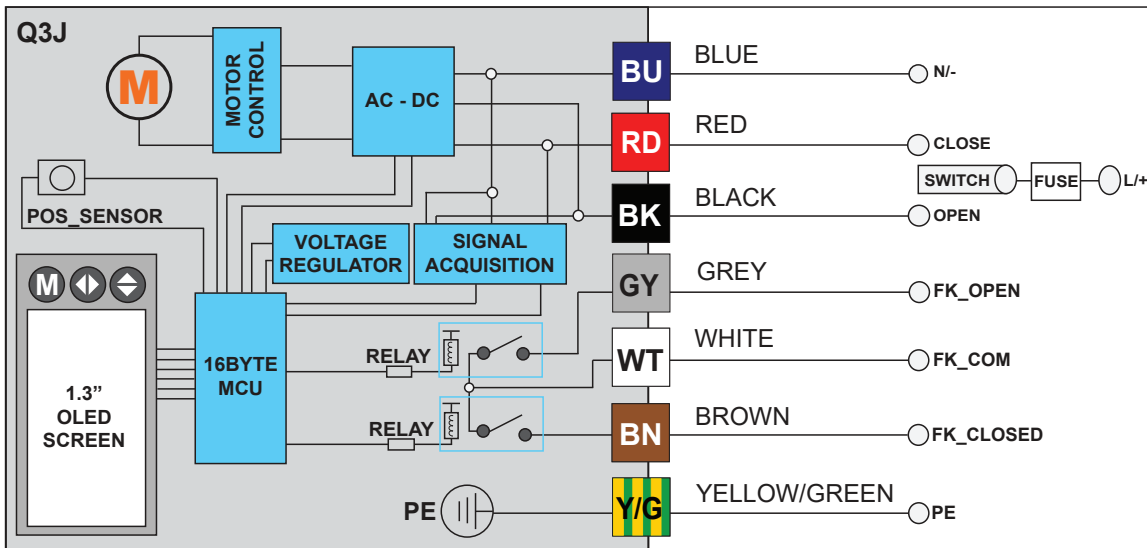


*REFER TO PAGE 1

SCHEMATIC		QD3J, Q3J		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH DISCONNECTED	CLOCKWISE	CLOSE	WT CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED	ANTICLOCKWISE	OPEN	WT CONNECTED WITH GY	TO OPEN



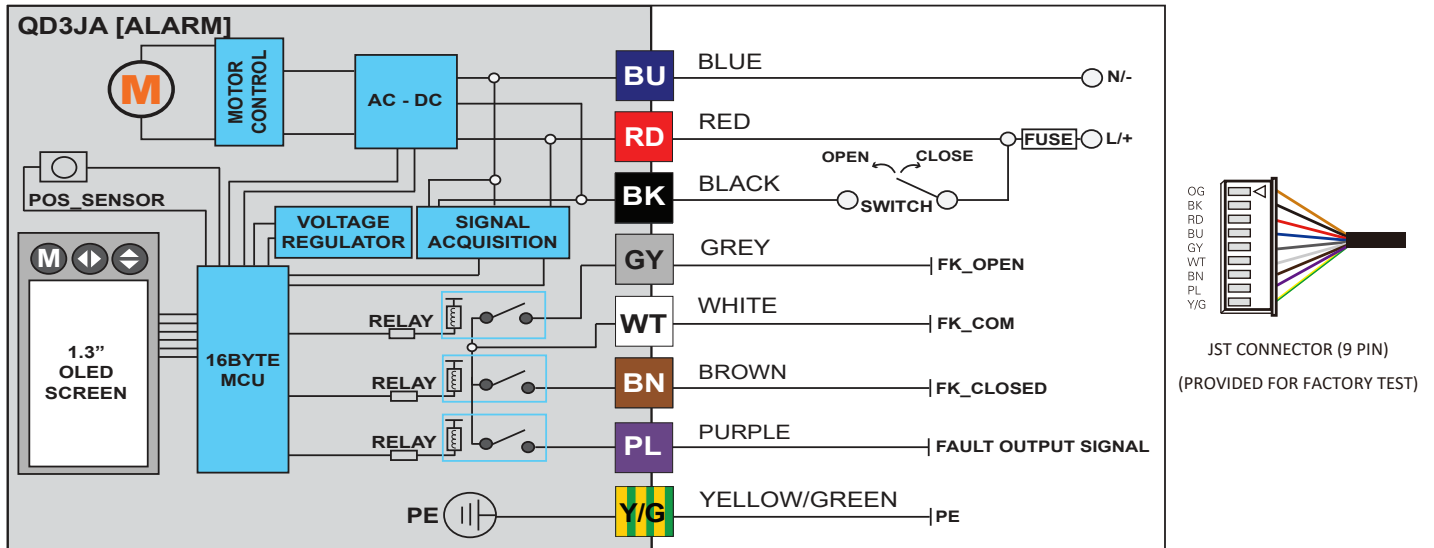
SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED RD	CLOCKWISE	CLOSE	WT CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED BK	ANTICLOCKWISE	OPEN	WT CONNECTED WITH GY	TO OPEN

NOTICE

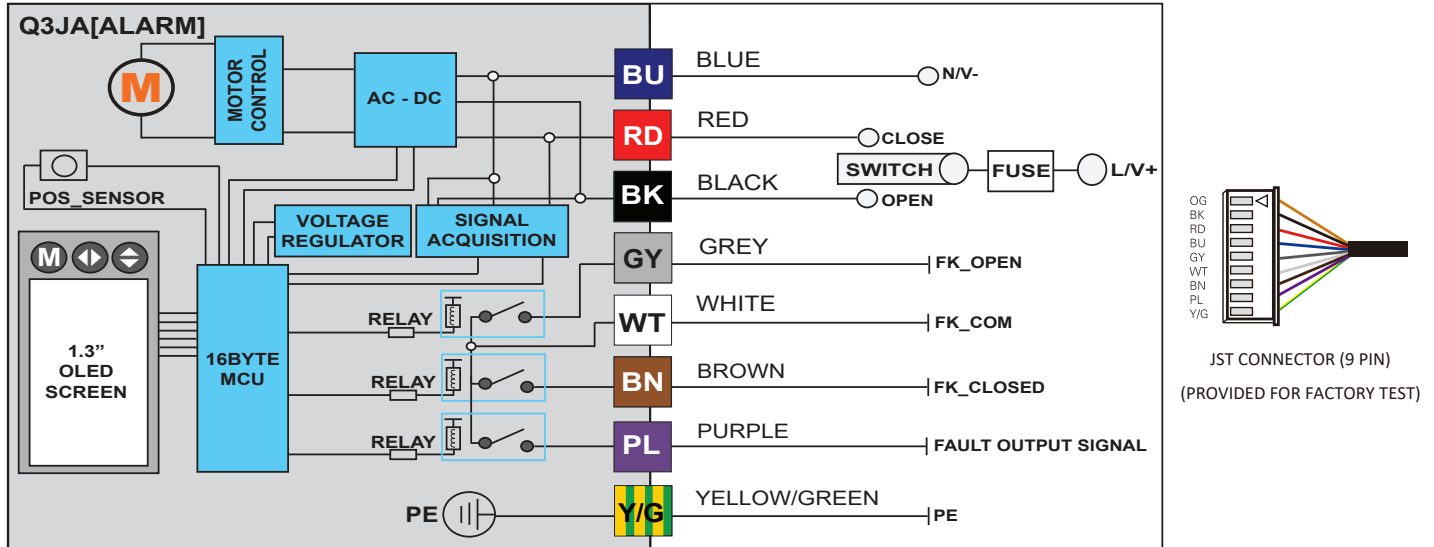
WT DISCONNECTED WITH GY & BN WHEN ACTUATOR IS OPERATING.

AFTER POWER CUT, THE FEEDBACK AND FAULT SIGNAL WILL DISAPPEAR. WT DISCONNECTS WITH GY & BN.

SCHEMATIC		QD3JA, Q3JA - [ALARM] [9-CORE]		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH DISCONNECTED	CLOCKWISE	CLOSE	WT CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED	ANTICLOCKWISE	OPEN	WT CONNECTED WITH GY	TO OPEN



SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH DISCONNECTED	CLOCKWISE	CLOSE	WT CONNECTED WITH BN	TO CLOSE
SWITCH CONNECTED	ANTICLOCKWISE	OPEN	WT CONNECTED WITH GY	TO OPEN

NOTICE

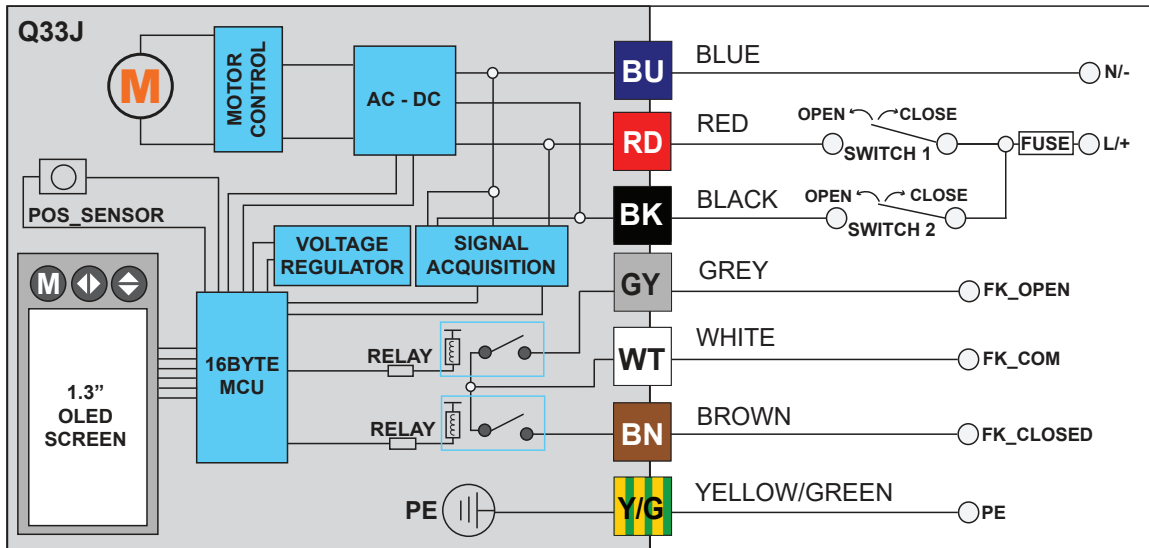
BN DISCONNECTED WITH WT & Y/G, WHEN THE ACTUATOR IS OPERATING. (ONLY FOR QD3JA)

WT DISCONNECTED WITH GY & BN WHEN THE ACTUATOR IS OPERATING. (ONLY FOR Q3JA)

IN CASE OF ACTUATOR STUCK (JAM), SWITCH FAILURE OR OTHER FAULTS WT CONNECTS WITH PL. WILL SEND ALARM SIGNAL.

AFTER POWER CUT, THE FEEDBACK AND FAULT SIGNAL WILL DISAPPEAR. WT DISCONNECTS WITH GY, BN & PL.

SCHEMATIC		Q33J[7 CORE], Q33JA[ALARM][9 CORE]		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50

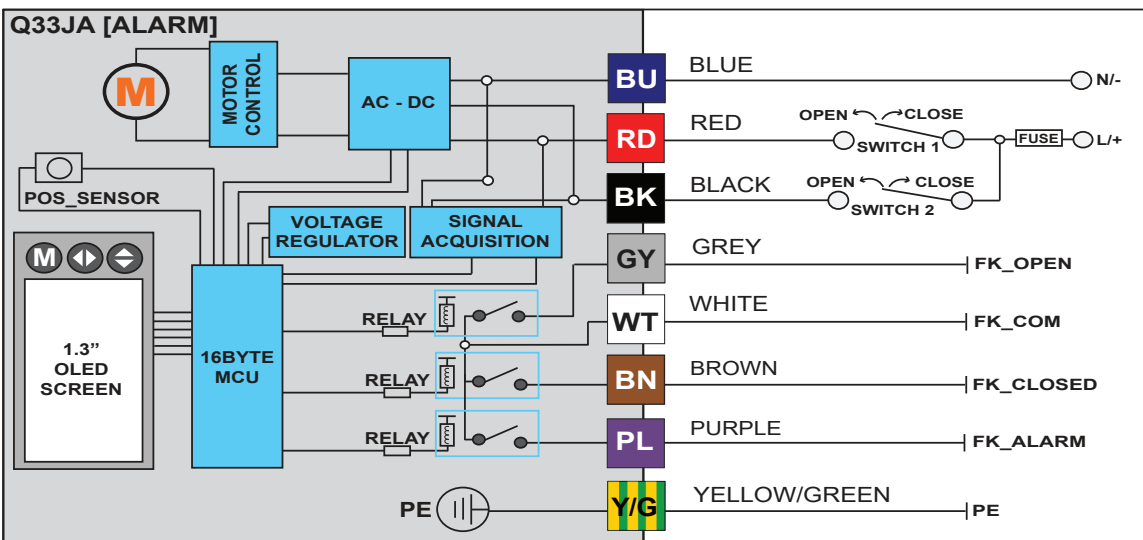


SWITCH 1	SWITCH 2	FLOW DIRECTION	FEEDBACK SIGNAL
CONNECTED	DISCONNECTED	0°	WT CONNECTED WITH BN
DISCONNECTED	CONNECTED	90°	WT CONNECTED WITH GY
CONNECTED	CONNECTED	THE THIRD POSITION (SET BY MENU)	WT CONNECTED WITH GY & BN

NOTICE

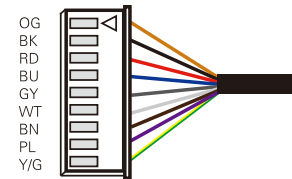
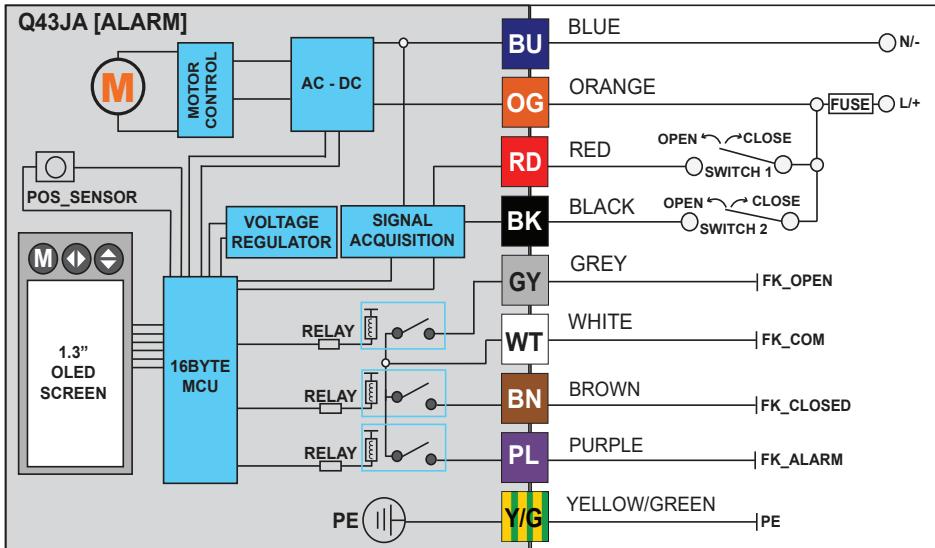
WT IS NOT CONNECTED WITH GY & BN, WHEN THE ACTUATOR IS OPERATING.

AFTER POWER CUT, THE FEEDBACK AND FAULT SIGNAL WILL DISAPPEAR. WT DISCONNECTS WITH GY & BN



SWITCH 1	SWITCH 2	FLOW DIRECTION	FEEDBACK SIGNAL
CONNECTED	DISCONNECTED	0°	WT CONNECTED WITH BN
DISCONNECTED	CONNECTED	90°	WT CONNECTED WITH GY
CONNECTED	CONNECTED	THE THIRD POSITION (SET BY MENU)	WT CONNECTED WITH GY & BN

SCHEMATIC		Q43JA[ALARM][9 CORE]		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



JST CONNECTOR (9 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH 1		SWITCH 2		FLOW DIRECTION
CONNECTED	↶	DISCONNECTED	↷	0°
DISCONNECTED	↷	CONNECTED	↶	90°
CONNECTED	↶	CONNECTED	↶	THE THIRD POSITION (SET BY MENU)
DISCONNECTED	↷	DISCONNECTED	↷	BRAKE/KEEP/THE FOURTH POSITION (SET BY MENU)

NOTICE

WT IS NOT CONNECTED WITH GY BN & PL, WHEN THE ACTUATOR IS OPERATING.

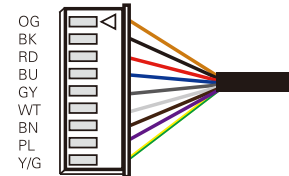
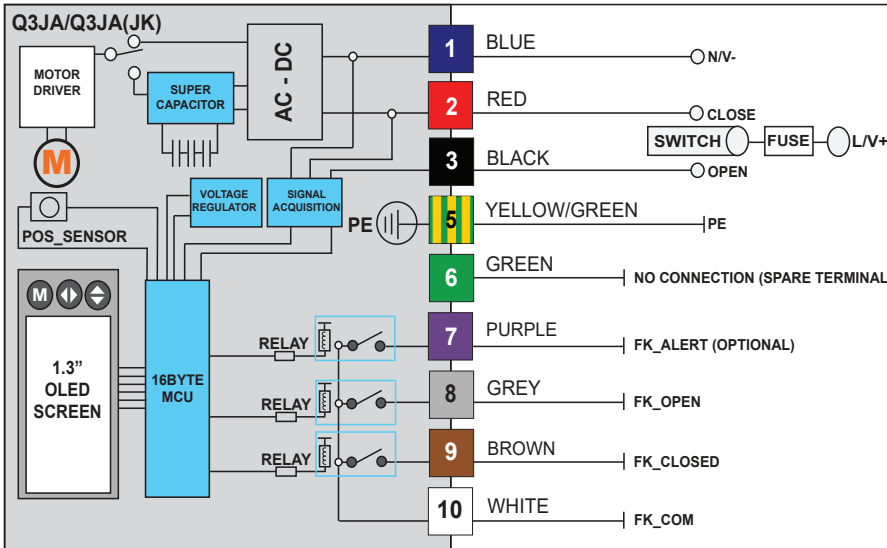
WHEN ACTUATOR ISS STUCK (JAM) OR NOT OPERATABLE DUE TO ANY FAULT IT WILL LEAD VALVE TO FULL-OPEN OR FULL-CLOSE.
WT CONNECTS WITH PL. WILL SEND ALARM SIGNAL.

AFTER POWER CUT, THE FEEDBACK AND FAULT SIGNAL WILL DISAPPEAR. WT DISCONNECTS WITH GY, BN & PL

45° IS THE THIRD POSITION, WHOSE VALUE (10%-90%) COULD BE SET BY MENU.

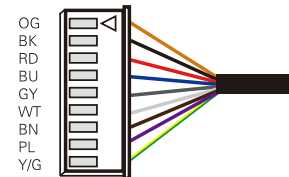
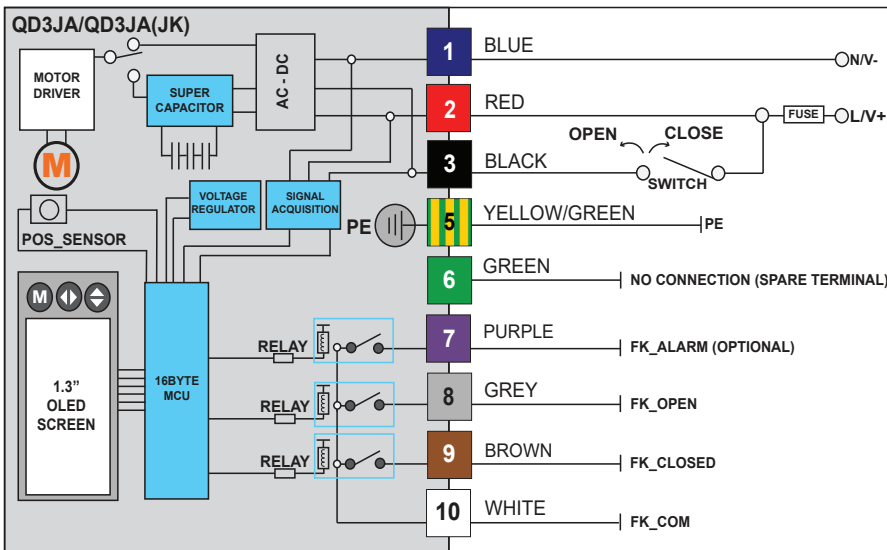
WHEN SW1, SW2 BOTH ARE DISCONNECTED, IT INDICATES NO CONTROL SIGNAL, FACTORY DEFAULT IS VALVE-OFF COMMAND.

SCHEMATIC		Q3JA / Q3JA(JK), QD3JA / QD3JA(JK)			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



JST CONNECTOR (9 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED TO CLOSE	CLOCKWISE	CLOSE	10 CONNECTED WITH 9	TO CLOSE
SWITCH CONNECTED TO OPEN	ANTICLOCKWISE	OPEN	10 CONNECTED WITH 8	TO OPEN



JST CONNECTOR (9 PIN)
(PROVIDED FOR FACTORY TEST)

SWITCH CONNECTION	ACTUATOR ROTATION	TO ACHIEVE POSITION OF VALVE	CONNECTION	SIGNAL
SWITCH CONNECTED TO CLOSE	CLOCKWISE	CLOSE	10 CONNECTED WITH 9	TO CLOSE
SWITCH CONNECTED TO OPEN	ANTICLOCKWISE	OPEN	10 CONNECTED WITH 8	TO OPEN

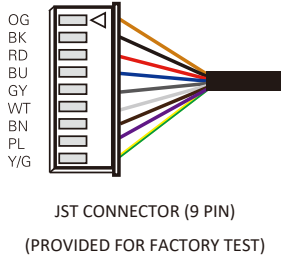
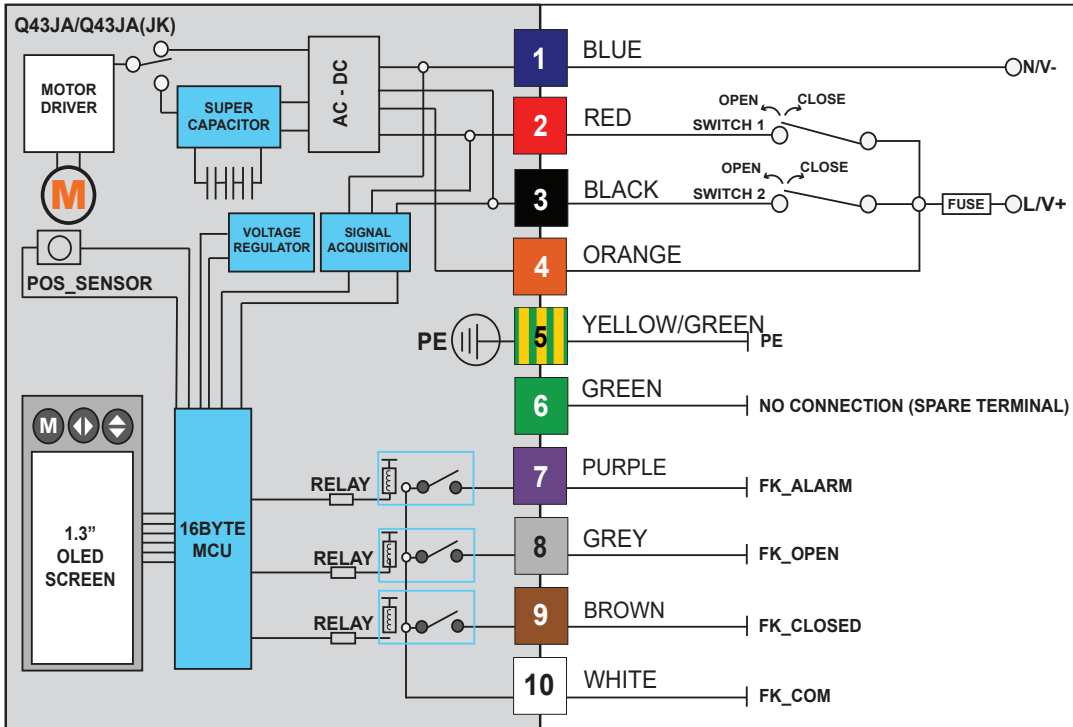
NOTICE

10 IS NOT CONNECTED WITH 9 & 8 WHEN THE ACTUATOR IS OPERATING.

AFTER POWER CUT, THE FEEDBACK AND FAULT SIGNAL WILL DISAPPEAR. 10 DISCONNECTS WITH 9 & 8.

IN CASE OF POWER FAILURE, FAILSAFE ACTUATOR WILL AUTOMATICALLY ROTATE TO THE SET POSTION (OPEN / CLOSE). (ONLY FOR QD3JA/ QD3JA(JK))

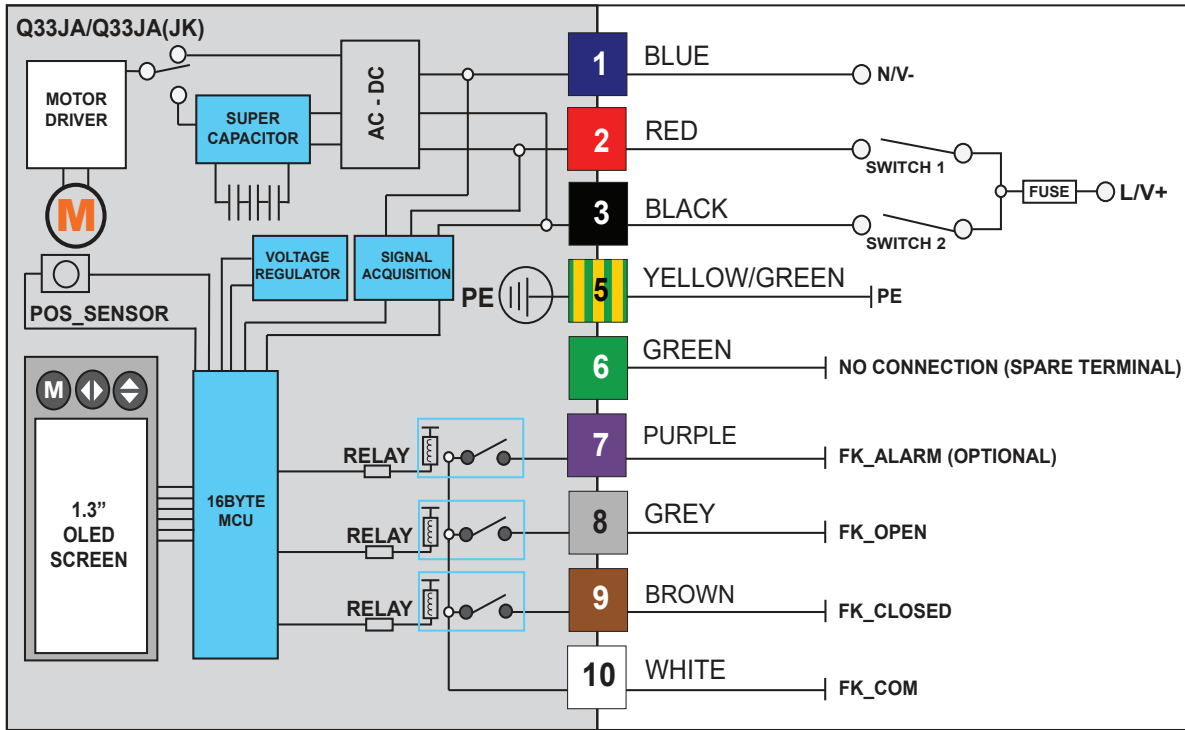
SCHEMATIC		Q43JA / Q43JA(JK)			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



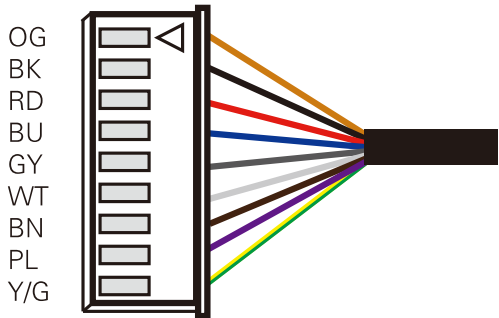
SWITCH 1		SWITCH 2		FLOW DIRECTION
CONNECTED	↶	DISCONNECTED	↷	0°
DISCONNECTED	↷	CONNECTED	↶	90°
CONNECTED	↶	CONNECTED	↶	THE THIRD POSITION (SET BY MENU)
DISCONNECTED	↷	DISCONNECTED	↷	BRAKE/KEEP/THE FOURTH POSITION (SET BY MENU)

NOTICE
10 IS NOT CONNECTED WITH 7 8 & 9 WHEN THE ACTUATOR IS OPERATING.
WHEN ACTUATOR IS STUCK (JAM) OR NOT OPERATABLE DUE TO ANY FAULT, IT WILL LEAD VALVE TO FULL-OPEN OR FULL-CLOSE, 10 CONNECTS WITH 7. WILL SEND ALARM SIGNAL.
AFTER POWER CUT, THE FEEDBACK AND FAULT SIGNAL WILL DISAPPEAR, 10 IS NOT CONNECTED WITH 7, 8 & 9.
45° IS THE THIRD POSITION, WHOSE VALUE (10%-90%) COULD BE SET BY MENU.
WHEN SW1, SW2 BOTH ARE DISCONNECTED, IT INDICATES NO CONTROL SIGNAL. FACTORY DEFAULT IS VALVE-OFF COMMAND.

SCHEMATIC		Q33JA / Q33JA(JK)			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



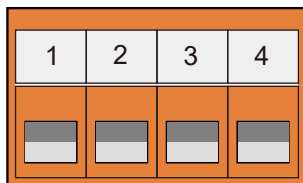
SWITCH 1	SWITCH 2	FLOW DIRECTION	FEEDBACK SIGNAL
CONNECTED	DISCONNECTED	0°	10 CONNECTED WITH 9
DISCONNECTED	CONNECTED	90°	10 CONNECTED WITH 8
CONNECTED	CONNECTED	THE THIRD POSITION (SET BY MENU)	10 CONNECTED WITH 9 & 8
ALARM SIGNAL (OPTIONAL)			10 CONNECTED WITH 7



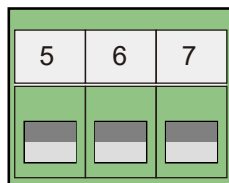
JST CONNECTOR (9 PIN)
(PROVIDED FOR FACTORY TEST)

TERMINAL BLOCK FOR PRODUCT WITHOUT CABLE _ WIRING INSTRUCTION

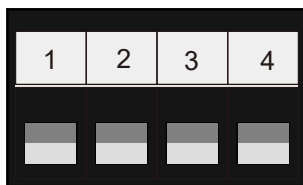
1. FUSE: PLEASE REFER TO MANUAL FOR MORE PARAMETERS.
2. SW SWITCHING CAPABILITY: PLEASE REFER TO MANUAL FOR MORE PARAMETERS.
3. FEEDBACK SIGNAL CONTACT LOAD CAPACITY: 0.1A / 250V AC, 0.5A / 30V DC.
4. PLEASE ENSURE ACTUATOR CONNECTIVITY TO GROUND.
5. ORANGE TERMINAL IS FOR 95-265V (INCLUDE 220V). BLACK TERMINAL IS FOR 12V DC / 24V DC
6. SOME PRODUCTS ADOPT WIRING BOX, USER COULD WIRE ACCORDING TO THE ORDER OF NUMBER.



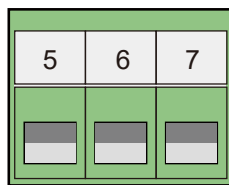
80/110Nm - 95-265 V TERMINAL BLOCK



200/400Nm - 95-265 V TERMINAL BLOCK



80/110Nm - 12-24 V TERMINAL BLOCK

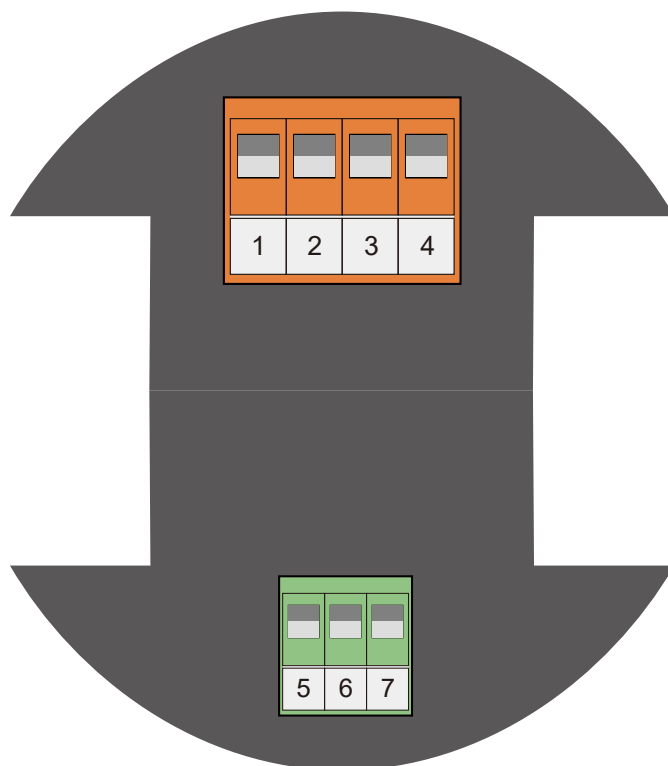


200/400Nm - 12-24 V TERMINAL BLOCK

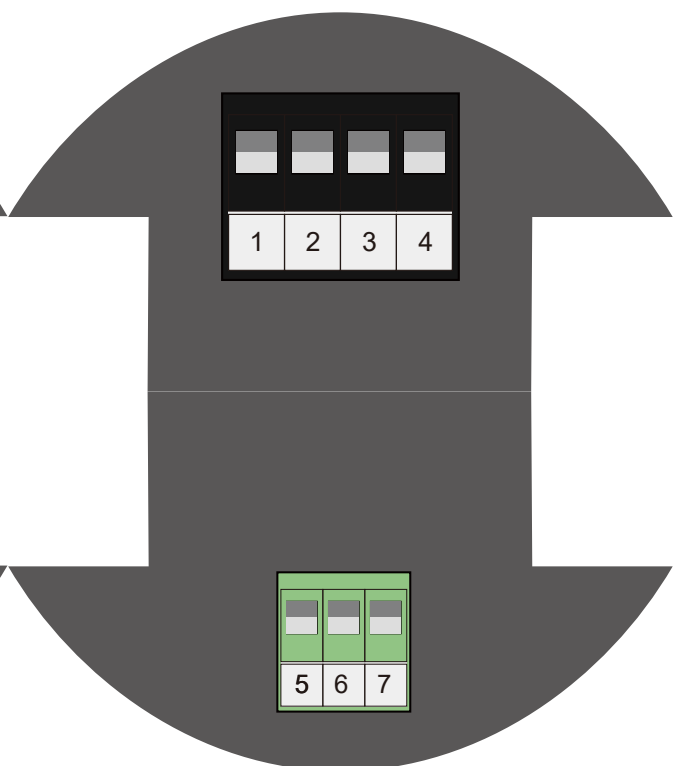
TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE

TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE.

FOR EXPLOSION PROOF



80/110Nm - 95-265 V TERMINAL BLOCK



80/110Nm - 12-24 V TERMINAL BLOCK

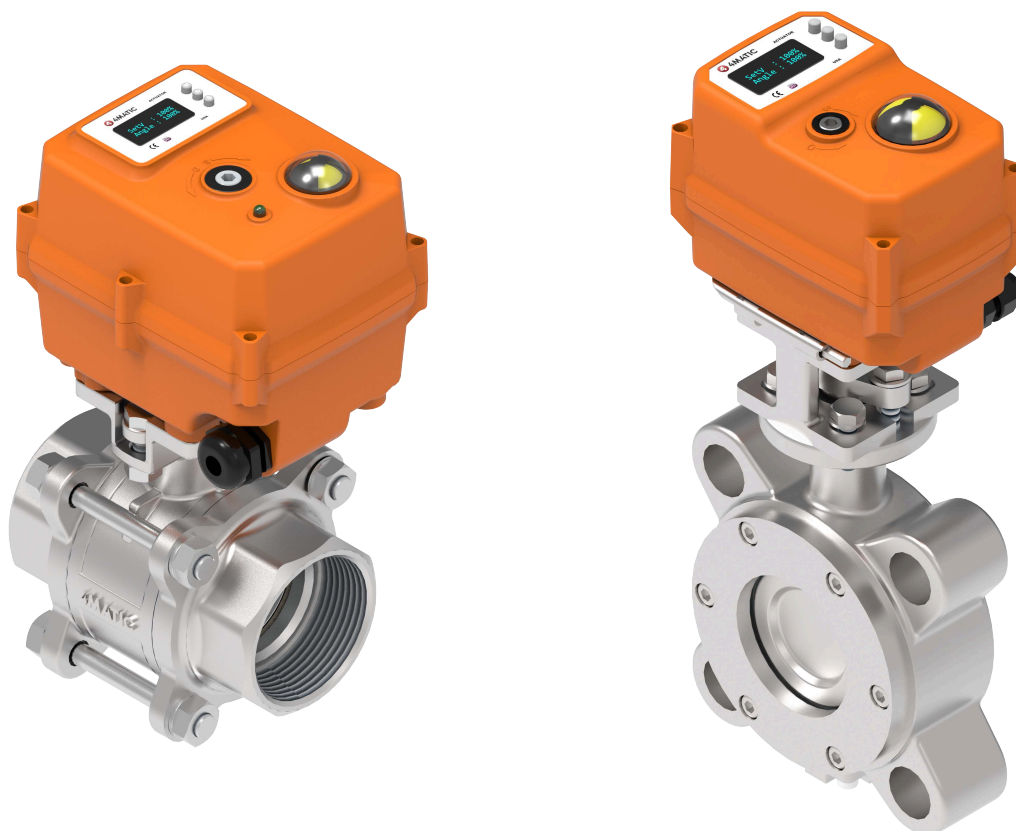
FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
ALARM OUTPUT	A (RELAY CONTACT FEEDBACK)
PROTECTION	IP67 / F TYPE
FEEDBACK	4~20mA, 0~20mA, 0~5V, 1~5V, 0~10V, 2~10V
POSITION ACCURACY	±1%
POSITION INDICATOR	MECHANICAL INDICATOR OR OLED INDICATOR
SPEED REGULATION	PWM*
MOTOR	HEAVY DUTY BRUSHLESS, OVERLOAD OR OVERHEAT PROTECTION
	ANTI CONDESAION HEATER, ELECTRONIC TORQUE LIMITOR
	SELF-LOCKING MECHANISM
CYCLE TIME	UPTO 20,000 TIMES (DEPEND ON TEST CONDITION*)



MODULATING – BASIC							
TORQUE (lbf-ft)	8	11 15 (V7)	37	59	81	148	295
TORQUE (Nm)	10	20 15 (V7)	50	80	110	200	400
VOLTAGE*	V3					V5	
POWER	12W	15W	25W	60W	100W	50W	80W
WIRING	4~20mA, 0~40mA, 0~5V, 1~5V, 0~10V, 2~10V						
TIME	5s	10s 15s (V7)	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 X 11 F 12 X 12 M	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

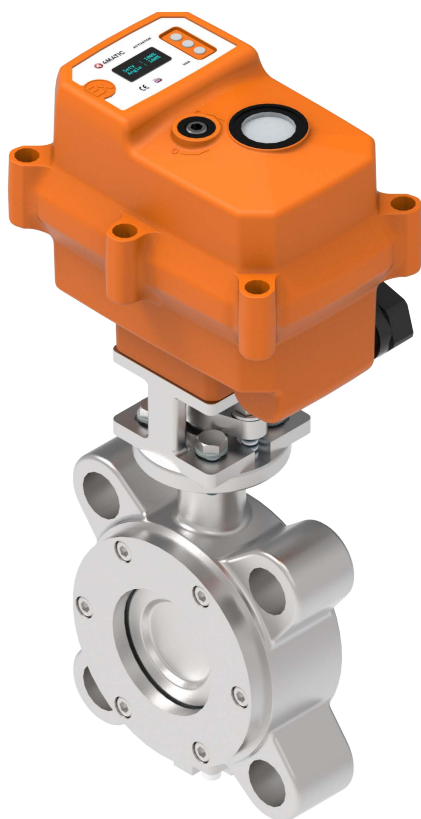
*REFER TO PAGE 1

MODULATING – HIGH SPEED							
TORQUE (lbf-ft)	5	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	6	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V6	V4		V5			
POWER	24W	25W 85W (V8)	40W 100W (V8)	60W	100W	100W	120W
WIRING	4~20mA, 0~40mA, 0~5V, 1~5V, 0~10V, 2~10V						
TIME	2s	6s 1s (V8)	5s 1s (V8)	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 X 11 F 12 X 12 M	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / ☐ M	☼ F / ☐ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



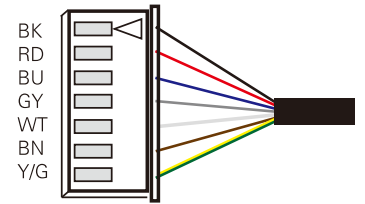
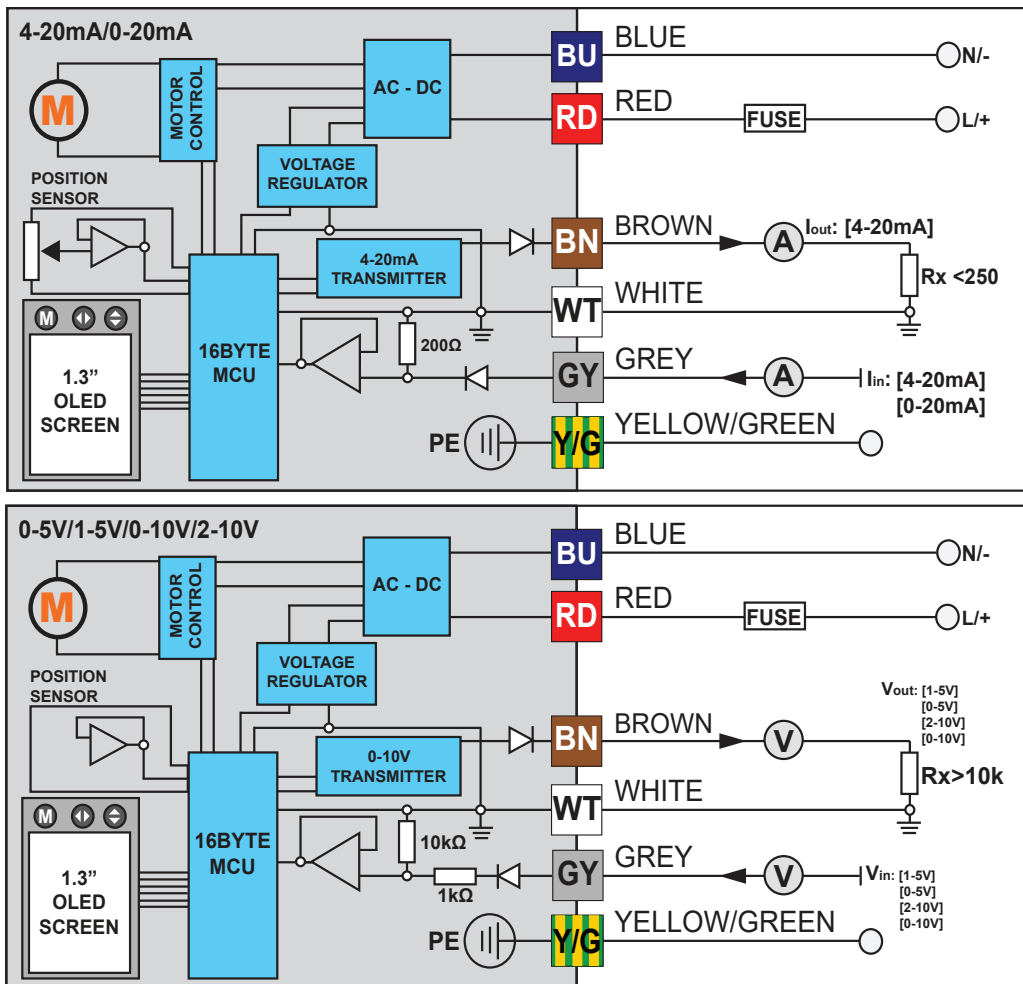
*REFER TO PAGE 1

MODULATING – FAILSAFE							
TORQUE (lbf-ft)	5	15	37	59	81	148	295
TORQUE (Nm)	6	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	18W	36W	40W	60W	100W	50W	80W
WIRING	4~20mA, 0~40mA, 0~5V, 1~5V, 0~10V, 2~10V						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



*REFER TO PAGE 1

SCHEMATIC		4~20mA / 0~20mA, 0~5V / 1~5V / 0~10V / 2~10V		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50

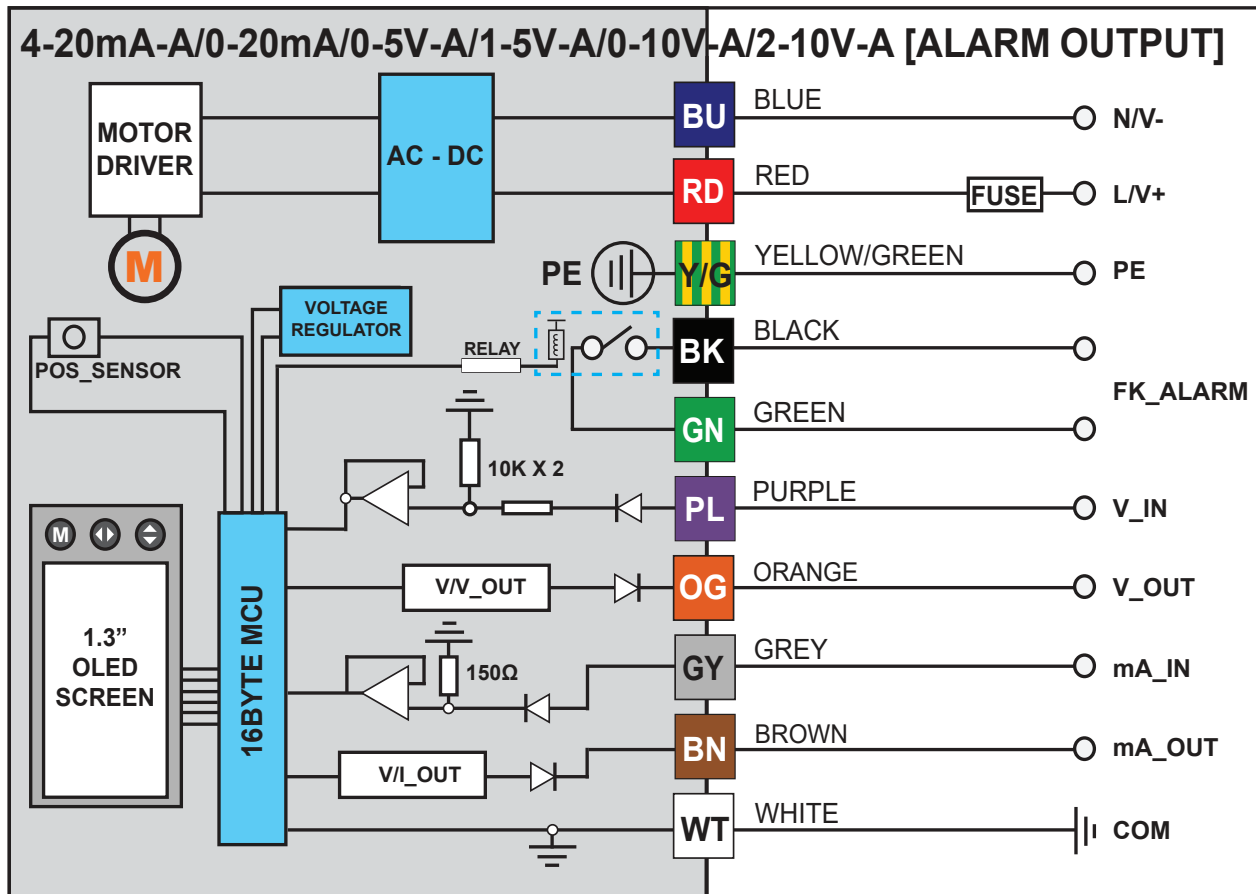


JST CONNECTOR (7 PIN)
(PROVIDED FOR FACTORY TEST)

CONTROL INSTRUCTIONS: [NO ALERT / 7-CORE]:

- RD & BU TO CONNECT POWER SUPPLY. PLEASE CHECK THE VOLTAGE PRIOR TO CONNECTION.
⚠️ WRONG VOLTAGE WILL DAMAGE THE CONTROL MODULE.
- Y/G TO CONNECT PE. PLEASE ENSURE ACTUATOR CONNECTIVITY TO GROUND.
- GY BN WT IS THE INPUT AND OUTPUT END. THESE THREE CABLES CAN NOT BE SHORT-CIRCUITED WITH THE POWER SUPPLY.
⚠️ GY IS 0~20mA, 4~20mA, 0~5V, 0~10V, 2~10V, THE SIGNAL INPUT IMPEDENCE REFERS TO THE CORRESPONDING WIRING DIAGRAM.
⚠️ BN IS 0~20mA, 4~20mA, 0~5V, 0~10V, 2~10V. USER MAY SET THE OUTPUT CURRENT/VOLTAGE RANGE FOR THE FEEDBACK OUTPUT SIGNAL FROM MENU.
- CURRENT OUTPUT LOAD R_x:
 △ $V_{OUT} = I_{OUT} \cdot R_x$
 △ R_x: IT IS RECOMMENDED TO USE RESISTOR WITH LOW TCR
 △ $V_{OUT} \leq 8V$, SO $R_x \leq 400\Omega$ (RECOMMENDED $V_{OUT} = 5V$, $R_x = 250\Omega / 0.25W$)
- USER MAY SET THE CONTROL MODE (0~20mA / 4~20mA / 0~10V / 2~10V) BY 'CONTROL MODE' IN MENU.
- FOR THE ACTUATOR WITH FAILSAFE FUNCTION, USER MAY SET THE ACTION OF THE ACTUATOR FROM MENU WHEN THE POWER FAILS. THE AVAILABLE OPTIONS ARE ON, OFF, KEEP, Q33. THE DEFAULT OPTION IS OFF.
- OUTPUT SIGNAL AVAILABLE OPTIONS: 0~10V / 2~10V / 0~5V / 1~5V IS $\geq 10k\Omega$. PLEASE USE RESISTOR WIRE OF REQUIRED LENGTH AS EXTRA LENGTH OF RESISTOR WIRE WILL AFFECT THE ACCURACY.

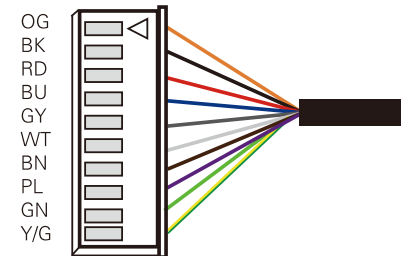
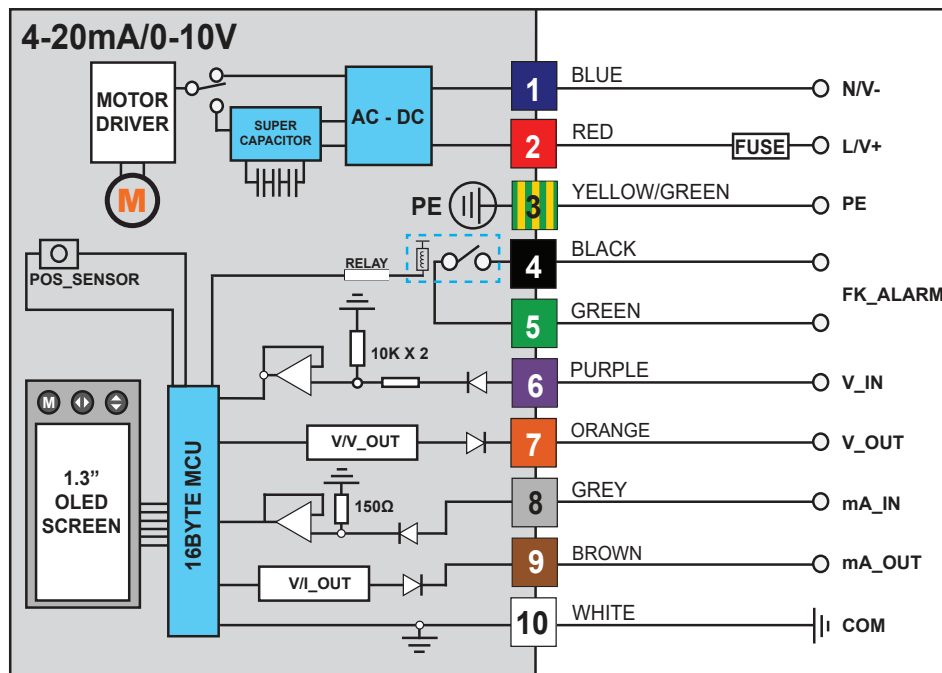
SCHEMATIC		4~20mA-A / 0~20mA / 0~5V-A / 1~5V-A / 0~10V-A / 2~10V-A [ALARM OUTPUT]		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



ALARM OUTPUT - WIRING INSTRUCTIONS

- RD & BU TO CONNECT POWER SUPPLY. PLEASE CHECK THE VOLTAGE PRIOR TO CONNECTION.
⚠️ WRONG VOLTAGE WILL DAMAGE THE CONTROL MODULE.
- Y/G TO CONNECT PE. PLEASE ENSURE ACTUATOR CONNECTIVITY TO GROUND.
- BK & GN CONNECTIONS ARE FROM ALARM SIGNALS.
- PL OG GY BN WT IS THE INPUT AND OUTPUT END. THESE 5 CABLES CANNOT BE SHORT-CIRCUITED WITH POWER SUPPLY.
⚠️ PL IS 1~5V, 2~10V, 0~5V, 0~10V INPUT SIGNAL. IMPEDENCE REFERS TO THE CORRESPONDING WIRING DIAGRAM.
⚠️ OG IS 1~5V, 2~10V, 0~5V, 0~10V FEEDBACK OUTPUT SIGNAL. USER MAY SET THE OUTPUT VOLTAGE RANGE THROUGH MENU.
⚠️ GY IS 0~20mA, 4~20mA. THE SIGNAL INPUT IMPEDENCE REFERS TO THE CORRESPONDING WIRING DIAGRAM.
⚠️ BN IS 0~20 mA, 4~20mA. USER MAY SET THE OUTPUT CURRENT RANGE FOR FEEDBACK OUTPUT SIGNAL THROUGH MENU.
- CURRENT OUTPUT LOAD R_X :
 $\Delta V_{OUT} = I_{OUT} \cdot R_X$
 ΔR_X : IT IS RECOMMENDED TO USE RESISTOR WITH LOW TCR
 $\Delta V_{OUT} \leq 8V$, SO $R_X \leq 400\Omega$ (RECOMMENDED $V_{OUT} = 5V$, $R_X = 250\Omega / 0.25W$)
- USER MAY SET THE CONTROL MODE (0~20mA / 4~20mA / 0~10V / 2~10V) BY 'CONTROL MODE' IN MENU.
- IN CASE OF ANY ERRORS OR OPERATIONAL FAILURES SCREEN WILL DISPLAY THE CODE OF ERROR WITHOUT ANY ALARM SIGNAL.
NOTICE THE CONTACTOR LOADING CAPACITY IS: 0.1A / 24VDC, 50mA / 230V
- OUTPUT SIGNAL AVAILABLE OPTIONS: 0~10V / 2~10V / 0~5V / 1~5V IS $\geq 10k\Omega$. PLEASE USE RESISTOR WIRE OF REQUIRED LENGTH AS EXTRA LENGTH OF RESISTOR WIRE WILL AFFECT THE ACCURACY.

SCHEMATIC		4~20mA / 0~10V			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



JST CONNECTOR (10 PIN)
(PROVIDED FOR FACTORY TEST)

WIRING INSTRUCTIONS:

- 1 & 2 TO CONNECT POWER SUPPLY. ORANGE TERMINAL IS FOR THE PRODUCT IN 95-265V (INCLUDE 220V). BLACK TERMINAL IS FOR THE PRODUCT 12VDC / 24VDC. PLEASE CHECK VOLTAGE PRIOR TO CONNECTION.
⚠️ WRONG VOLTAGE WILL DAMAGE THE CONTROL MODULE
- 3 TO CONNECT PE. PLEASE ENSURE ACTUATOR CONNECTIVITY TO GROUND.
- 4 & 5 ARE FOR ALARM SIGNAL. THIS IS AN OPTIONAL FUNCTION. CUSTOMER SHOULD MARK THIS FUNCTION ON PURCHASE ORDER IF NEEDED.
- 6, 7, 8, 9 & 10 IS THE INPUT AND OUTPUT END. THESE 5 CABLES CANNOT BE SHORT CIRCUITED WITH POWER SUPPLY.
⚠️ 6 IS 1~5V, 2~10V, 0~5V, 0~10V INPUT SIGNAL. IMPEDENCE REFERS TO THE CORRESPONDING WIRING DIAGRAM.
⚠️ 7 IS 1~5V, 2~10V, 0~5V, 0~10V FEEDBACK OUTPUT SIGNAL. USER MAY SET THE OUTPUT VOLTAGE RANGE THROUGH MENU.
⚠️ 8 IS 0~20mA, 4~20mA. THE SIGNAL INPUT IMPEDENCE REFERS TO THE CORRESPONDING WIRING DIAGRAM.
⚠️ 9 IS 0~20mA, 4~20mA. USER MAY SET THE OUTPUT CURRENT RANGE FOR FEEDBACK OUTPUT SIGNAL THROUGH MENU.
- CURRENT OUTPUT LOAD R_X :

$$\Delta V_{OUT} = I_{OUT} \cdot R_X$$

$$\Delta R_X: \text{IT IS RECOMMENDED TO USE RESISTOR WITH LOW TCR.}$$

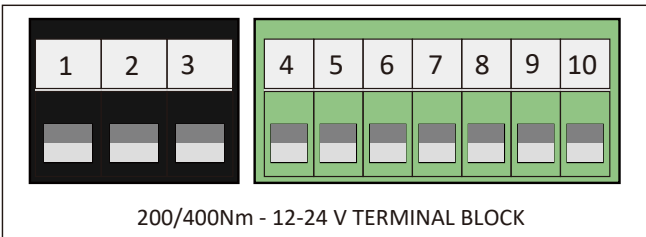
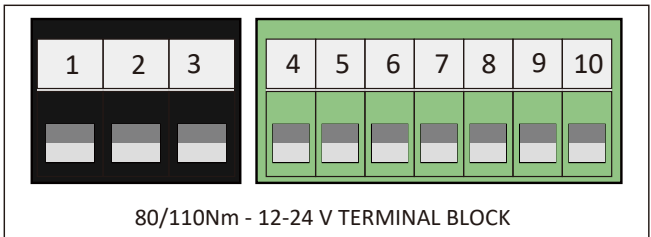
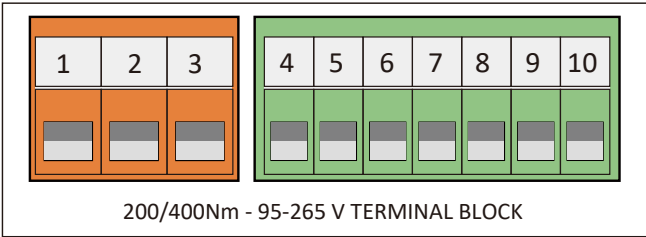
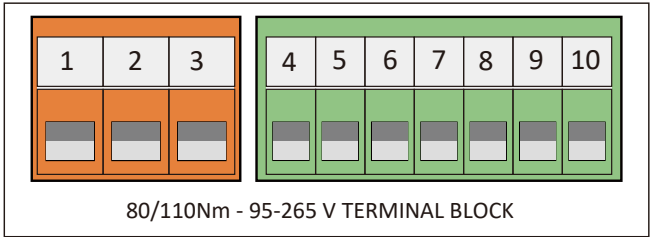
$$\Delta V_{OUT} \leq 8V, \text{ SO } R_X \leq 400\Omega \text{ (RECOMMENDED } V_{OUT} = 5V, R_X = 250\Omega / 0.25W)$$
- USER MAY SET THE CONTROL MODE (0~20mA / 4~20mA / 0~10V / 2~10V) BY 'CONTROL MODE' IN MENU.
- IN CASE OF ANY ERRORS OR OPERATIONAL FAILURES SCREEN WILL DISPLAY THE CODE OF ERROR WITHOUT ANY ALARM SIGNAL. NOTICE THE CONTACTOR LOADING CAPACITY IS: 0.1A / 24VDC, 50mA / 230V.
- OUTPUT SIGNAL AVAILABLE OPTIONS: 0~10V / 2~10V / 0~5V / 1~5V IS $\geq 10k\Omega$. PLEASE USE RESISTOR WIRE OF REQUIRED LENGTH AS EXTRA LENGTH OF RESISTOR WIRE WILL AFFECT THE ACCURACY.

FOR USER:

- THE OPTIONS AVAILABLE FOR CONTROL SIGNAL ARE 0~5V, 0~10V, 2~10V, 1~5V, 0~20 mA, 4~20mA.
- BY DEFAULT, ALARM SIGNAL IS A STANDARD FEATURE IN 4MATIC ACTUATORS.

TERMINAL BLOCK FOR PRODUCT WITHOUT CABLE _ WIRING INSTRUCTION

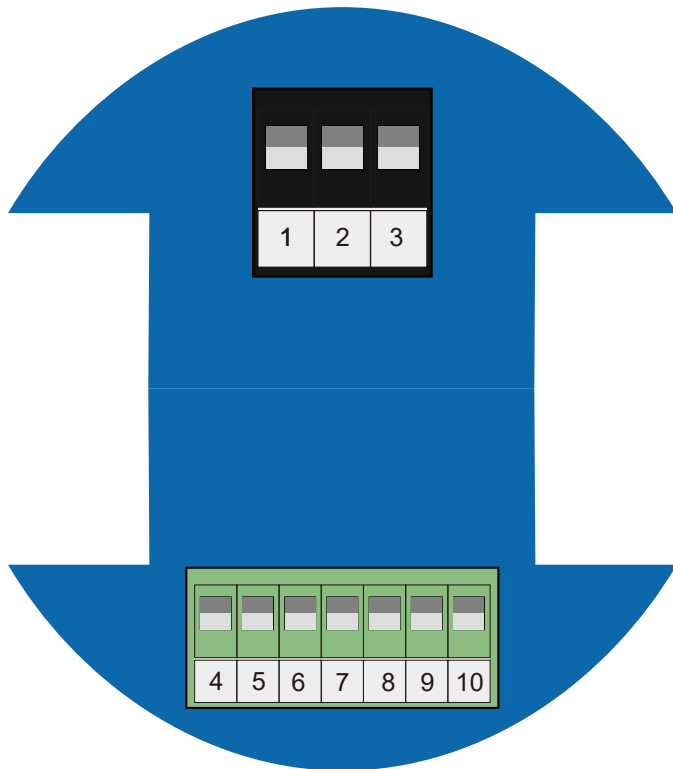
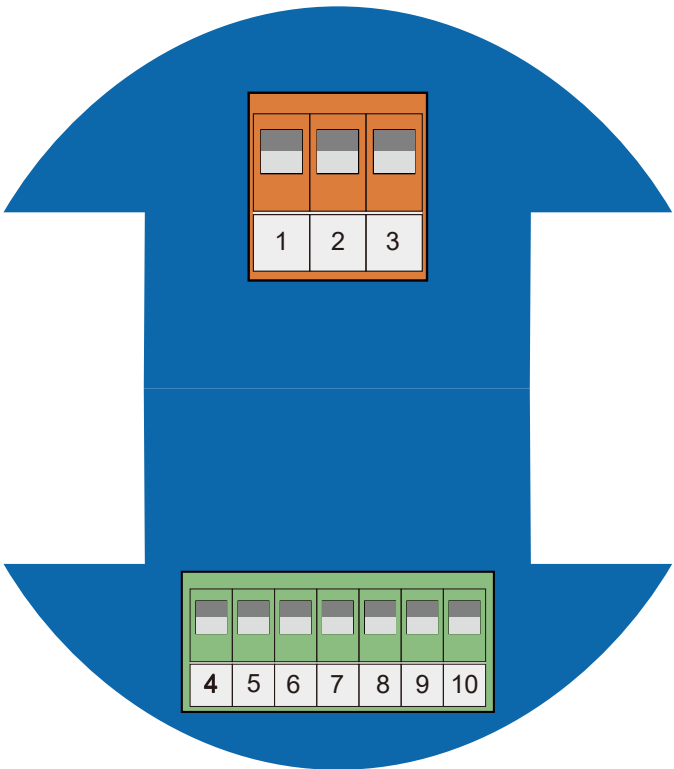
1. FUSE: REFER TO DETAIL CORRESPONDING INSTRUCTIONS.
2. ORANGE TERMINAL IS FOR 95-265 V (INCLUDE 220V). BLACK TERMINAL IS FOR 12VDC/24VDC
3. SOME PRODUCTS ADOPT WIRING BOX, USER COULD WIRE ACCORDING TO THE ORDER OF NUMBER.



TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE.

TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE.

FOR EXPLOSION PROOF



80/110Nm - 95-265 V TERMINAL BLOCK

80/110Nm - 12-24 V TERMINAL BLOCK

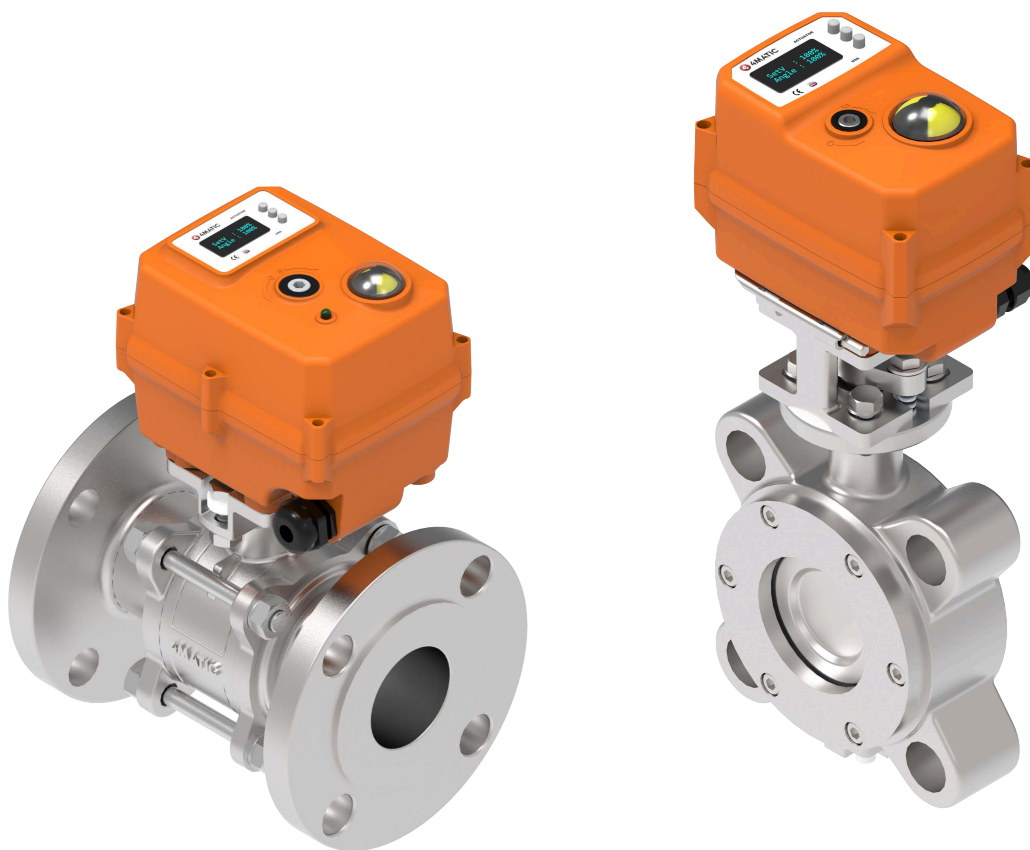
FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
PROTECTION	IP67 / F TYPE
FEEDBACK	RS485 (MODBUS), CANBUS2.0B / MBUS (CUSTOM)
ACHIEVABLE MODE	2 WAY / 3 WAY
POSITION INDICATOR	MECHANICAL INDICATOR OR OLED INDICATOR
SPEED REGULATION	PWM*
MOTOR	BRUSHLESS HEAVY DUTY, OVERLOAD OR OVERHEATED PROTECTION
	SELF-LOCKING MECHANISM
CYCLE TIME	UPTO 20,000 TIMES (DEPEND ON TEST CONDITION*)
ACTUATOR NETWORK	RS485 – 32/64/256
	CANBUS – UPTO 110



BUS – BASIC							
TORQUE (lbf-ft)	8	15	37	59	81	148	295
TORQUE (Nm)	10	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	12W	15W	25W	60W	100W	50W	80W
WIRING	RS485, CANBUS 2.0B						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

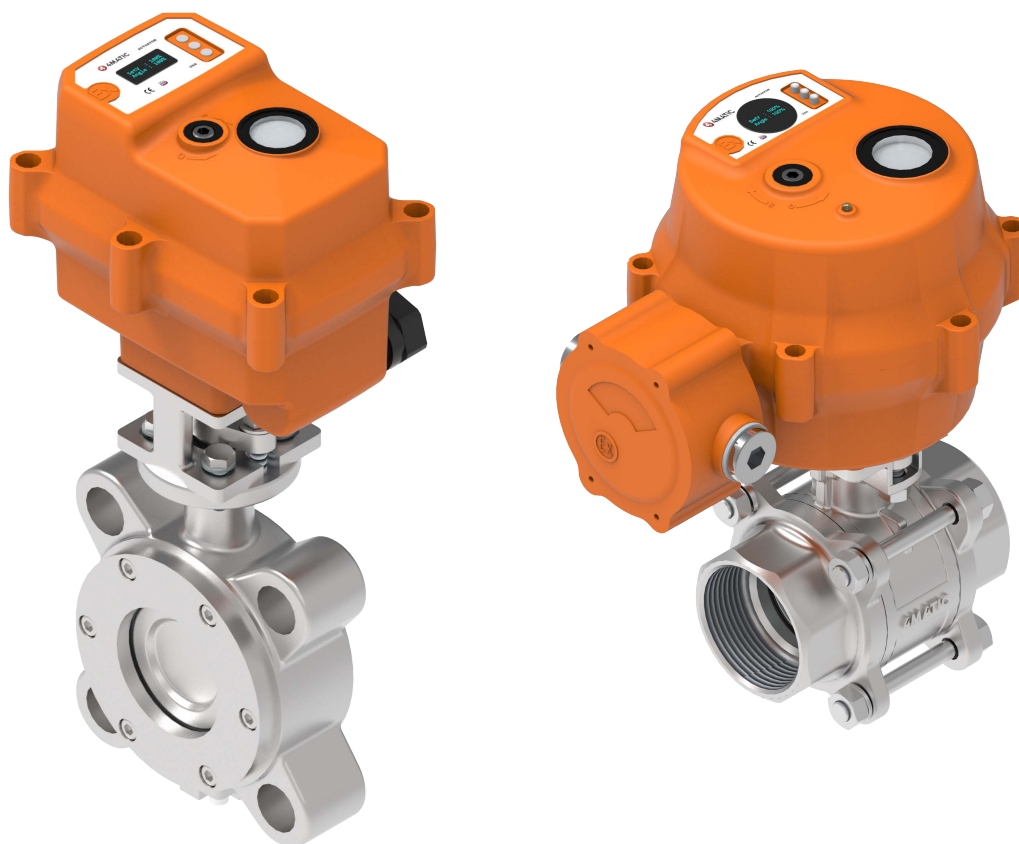
*REFER TO PAGE 1

BUS – HIGH SPEED							
TORQUE (lbf-ft)	5	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	6	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V6	V4	V5				
POWER	24W	25W 85W (V8)	40W	60W	100W	100W	120W
WIRING	RS485, CANBUS 2.0B						
TIME	2s	6s 1s (V8)	5s	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 X 11 F 12 X 12 M	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



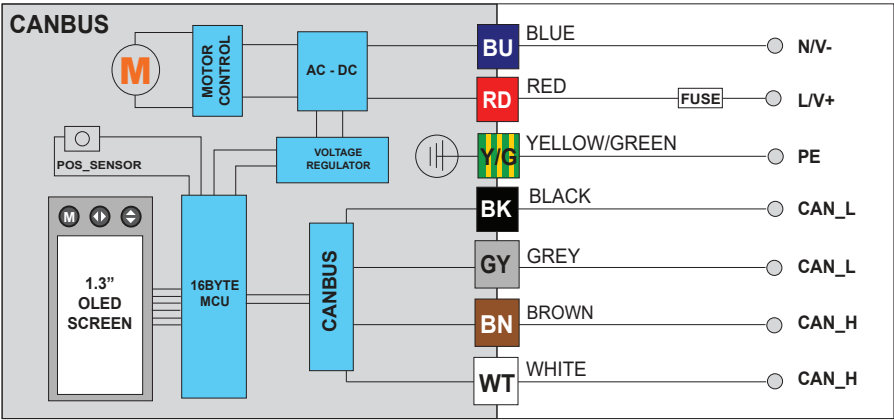
*REFER TO PAGE 1

BUS – FAILSAFE							
TORQUE (lbf-ft)	5	15	37	59	81	148	295
TORQUE (Nm)	6	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	18W	36W	40W	60W	100W	50W	80W
WIRING	RS485, CANBUS 2.0B						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

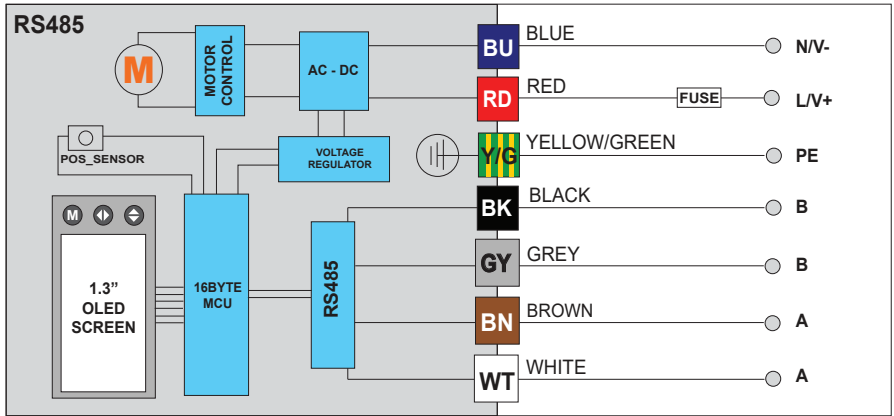
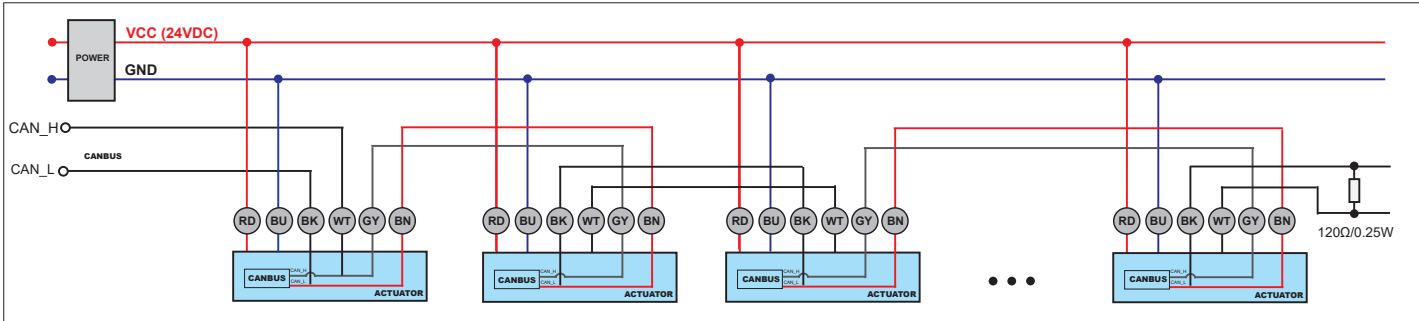


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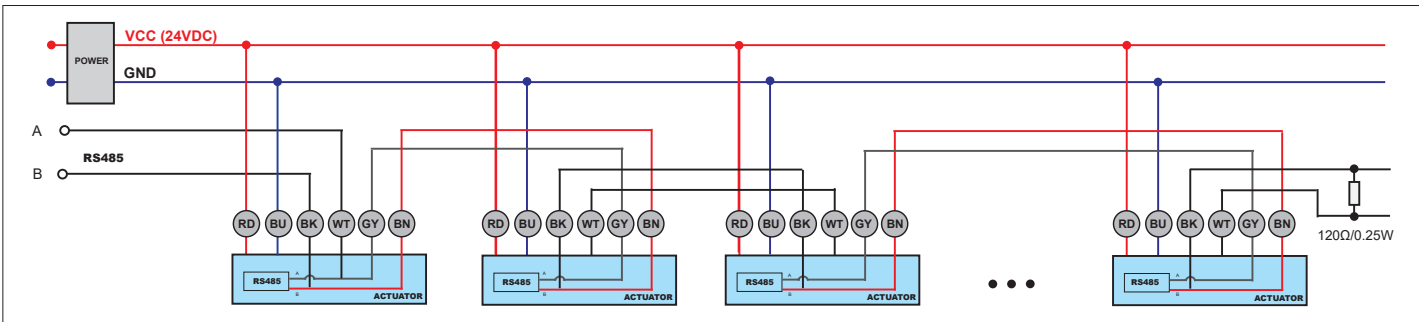
SCHEMATIC		CANBUS, RS485		
TORQUE	lbf-ft	8	15	37
	Nm	10	20	50



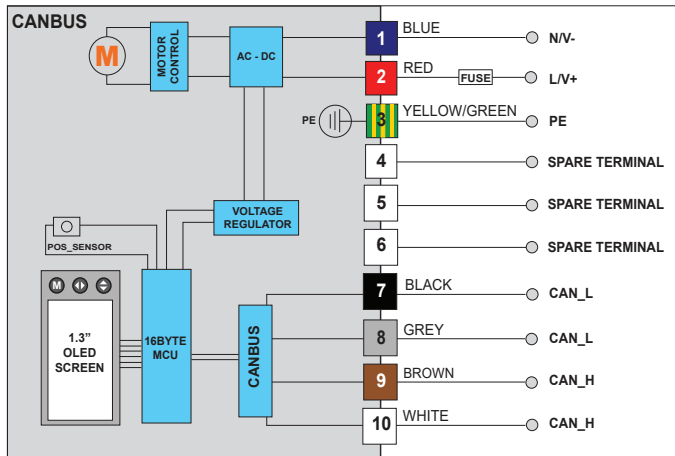
RECOMMENED CIRCUIT OF SEVERAL ACTUATORS COMMUNICATES IN PARALLEL



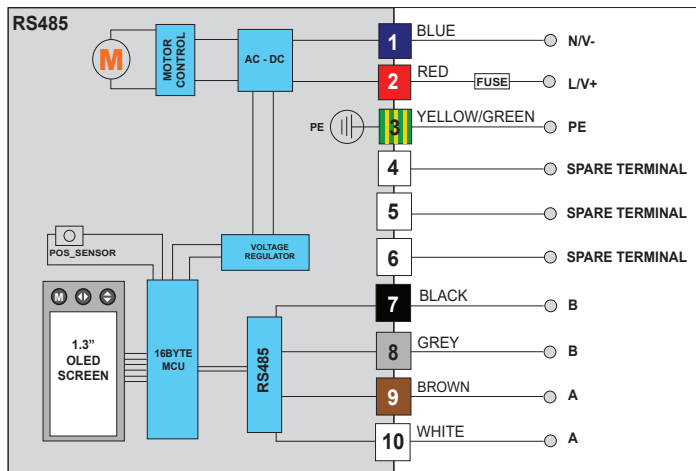
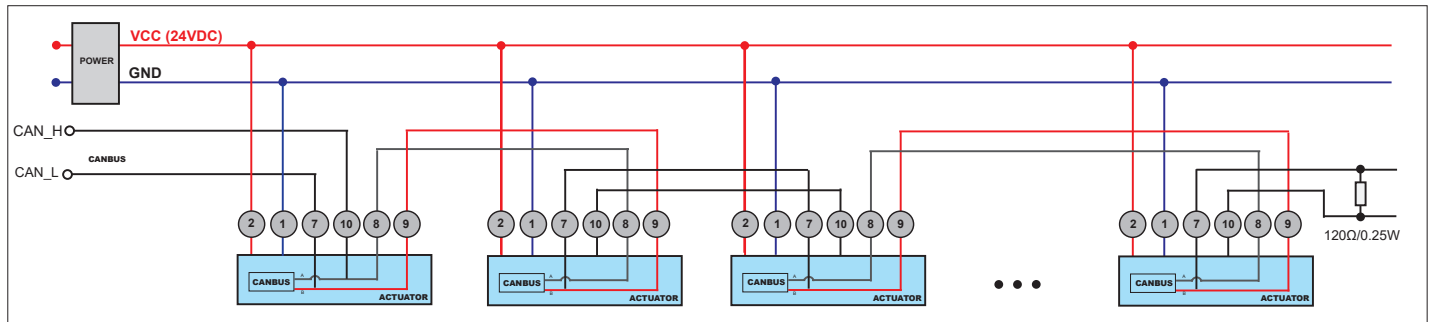
RECOMMENED CIRCUIT OF SEVERAL ACTUATORS COMMUNICATES IN PARALLEL



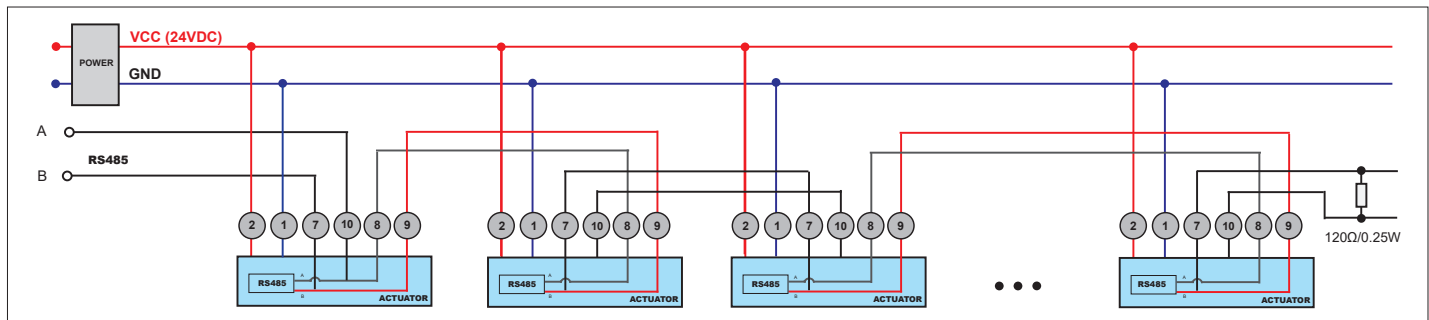
SCHEMATIC		CANBUS, RS485			
TORQUE	lbf-ft	59	81	148	295
	Nm	80	110	200	400



RECOMMENED CIRCUIT OF SEVERAL ACTUATORS COMMUNICATES IN PARALLEL

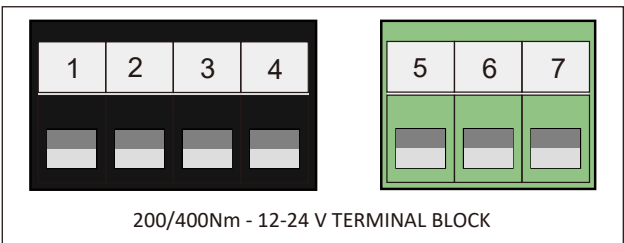
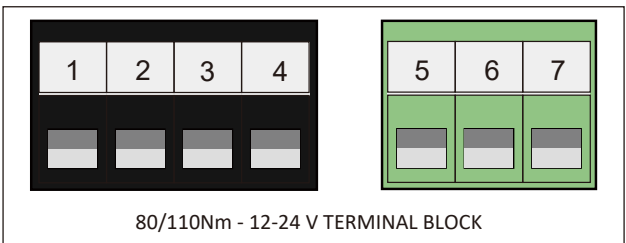
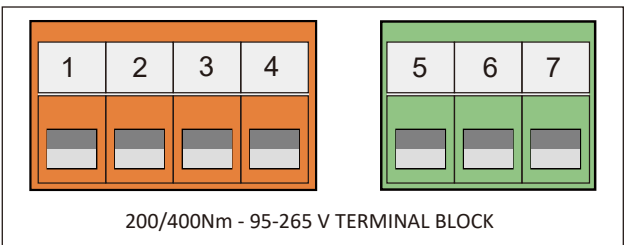
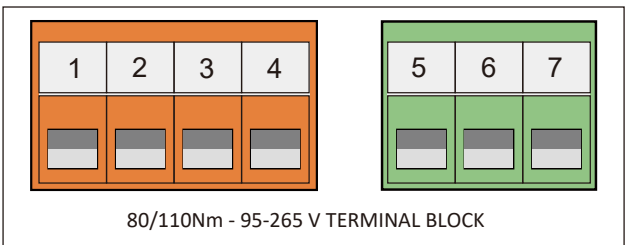


RECOMMENED CIRCUIT OF SEVERAL ACTUATORS COMMUNICATES IN PARALLEL



TERMINAL BLOCK FOR PRODUCT WITHOUT CABLE _ WIRING INSTRUCTION

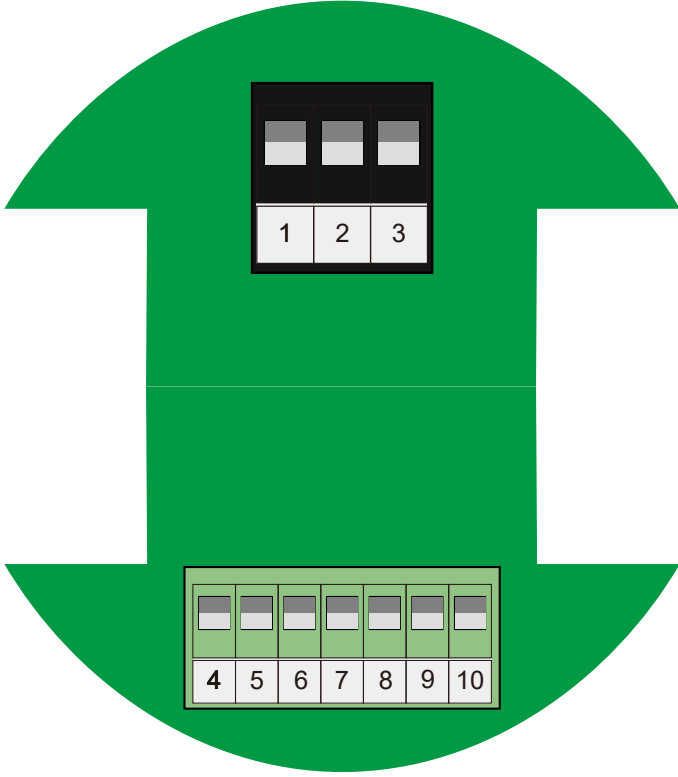
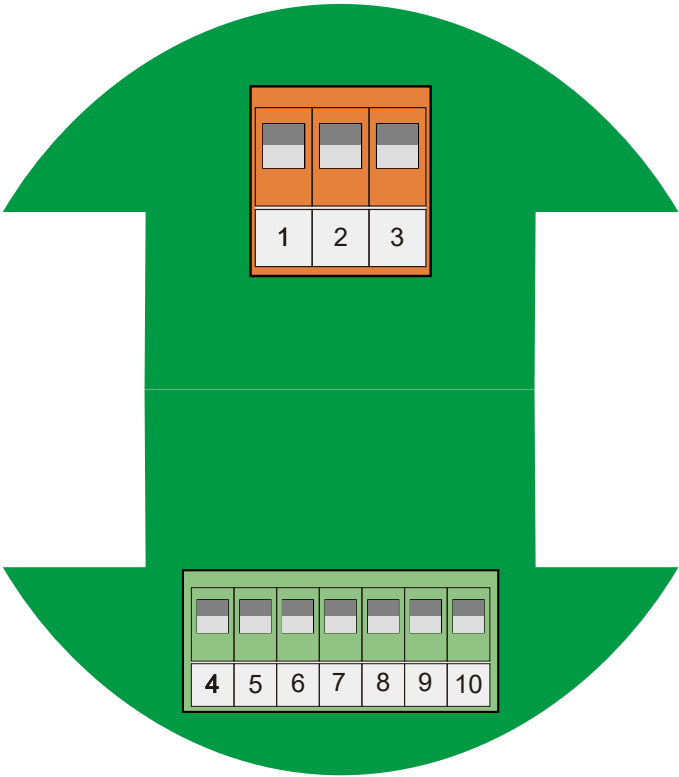
- 1. FUSE: PLEASE REFER TO MANUAL FOR MORE PARAMETERS.
- 2. SW SWITCHING CAPABILITY: PLEASE REFER TO MANUAL FOR MORE PARAMETERS.
- 3. FEEDBACK SIGNAL CONTACT LOAD CAPACITY:0.1A / 250V AC, 0.5A / 30VDC.
- 4. PLEASE ENSURE ACTUATOR CONNECTIVITY TO GROUND.
- 5. ORANGE TERMINAL IS FOR 95-265 V (INCLUDE 220V). BLACK TERMINAL IS FOR 12V DC / 24V DC.
- 6. SOME PRODUCTS ADOPT WIRING BOX, USER COULD WIRE ACCORDING TO THE ORDER OF NUMBER.



TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE

TERMINAL BLOCK OF THE PRODUCT WITHOUT CABLE

FOR EXPLOSION PROOF



80/110Nm - 95-265 V TERMINAL BLOCK

80/110Nm - 12-24 V TERMINAL BLOCK

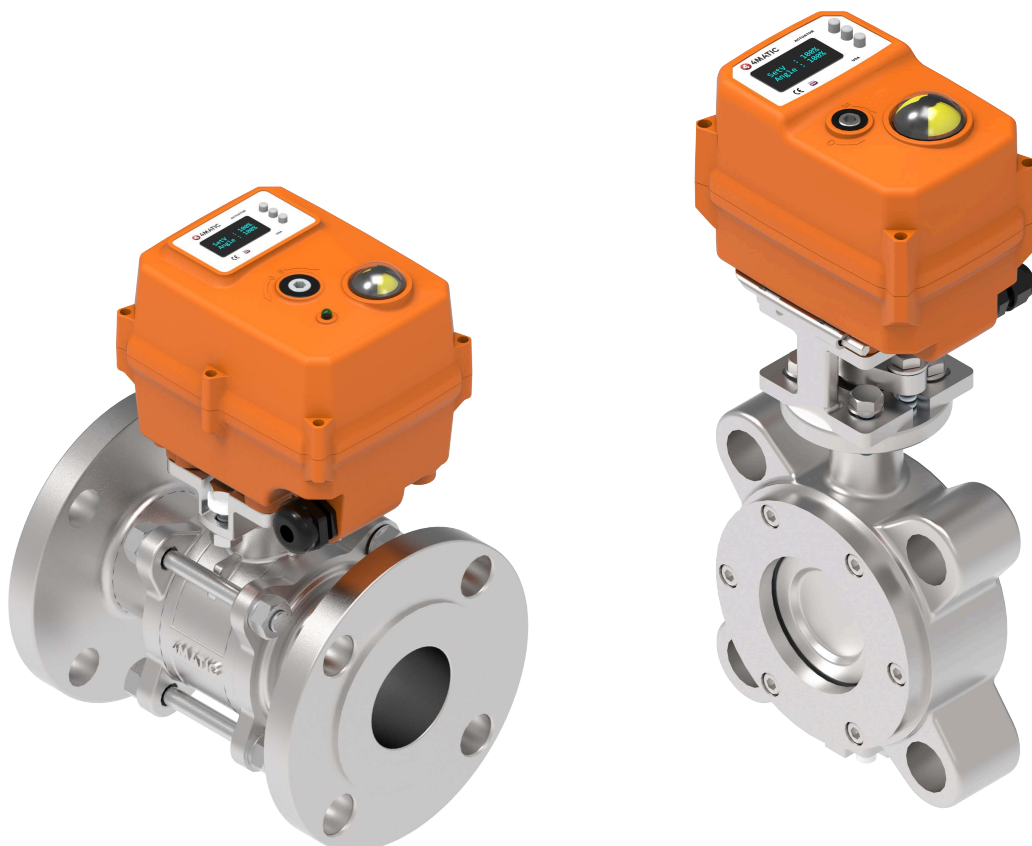
FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
TIMER MODE	PULSE, TIME
LOOP MODE	LOOP BY DAYS, LOOP BY WEEKS
PROTECTION	IP67 / F TYPE
POSITION INDICATOR	MECHANICAL INDICATOR OR OLED INDICATOR
SPEED REGULATION	PWM*
MOTOR	HEAVY DUTY BRUSHLESS, OVERLOAD OR OVERHEAT PROTECTION
	SELF-LOCKING MECHANISM
CYCLE TIME	UPTO 20,000 TIMES (DEPEND ON TEST CONDITION*)



TIMER – BASIC							
TORQUE (lbf-ft)	8	15	37	59	81	148	295
TORQUE (Nm)	10	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	12W	15W	25W	60W	100W	50W	80W
WIRING	TIMER / BLUETOOTH						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		

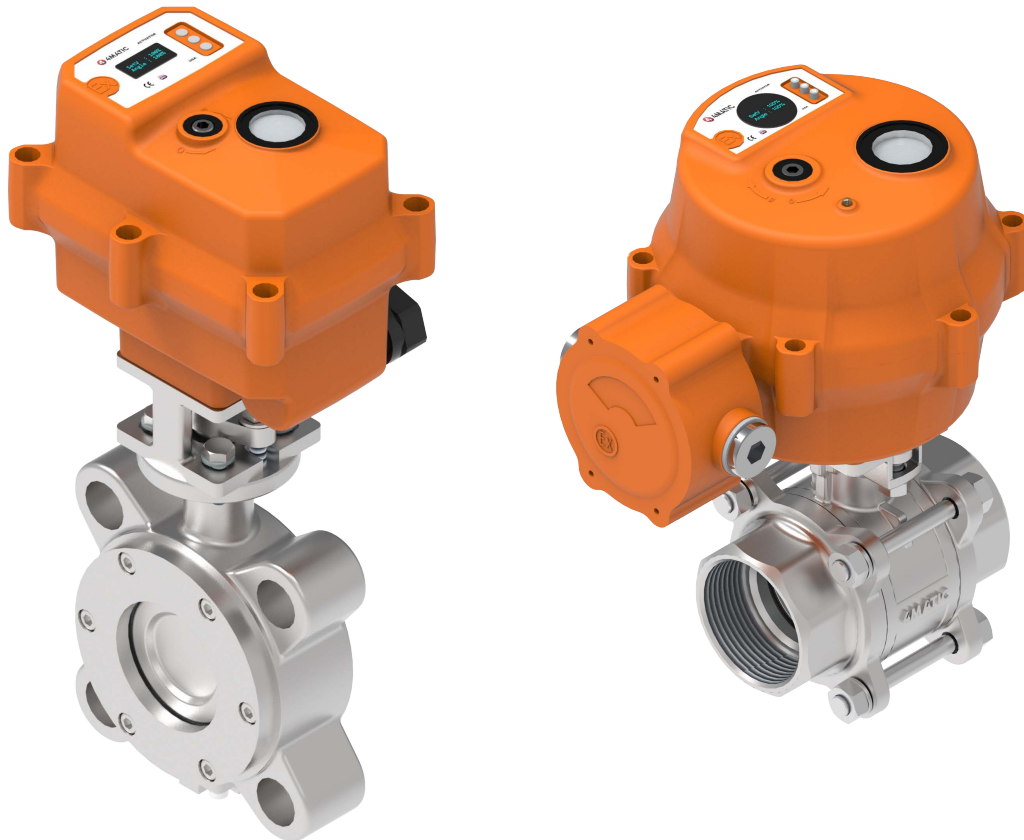
*REFER TO PAGE 1

TIMER – HIGH SPEED							
TORQUE (lbf-ft)	5	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	6	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V6	V4	V5				
POWER	24W	25W 85W (V8)	40W	60W	100W	100W	120W
WIRING	TIMER / BLUETOOTH						
TIME	2s	6s 1s (V8)	5s	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 X 11 F 12 X 12 M	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



*REFER TO PAGE 1

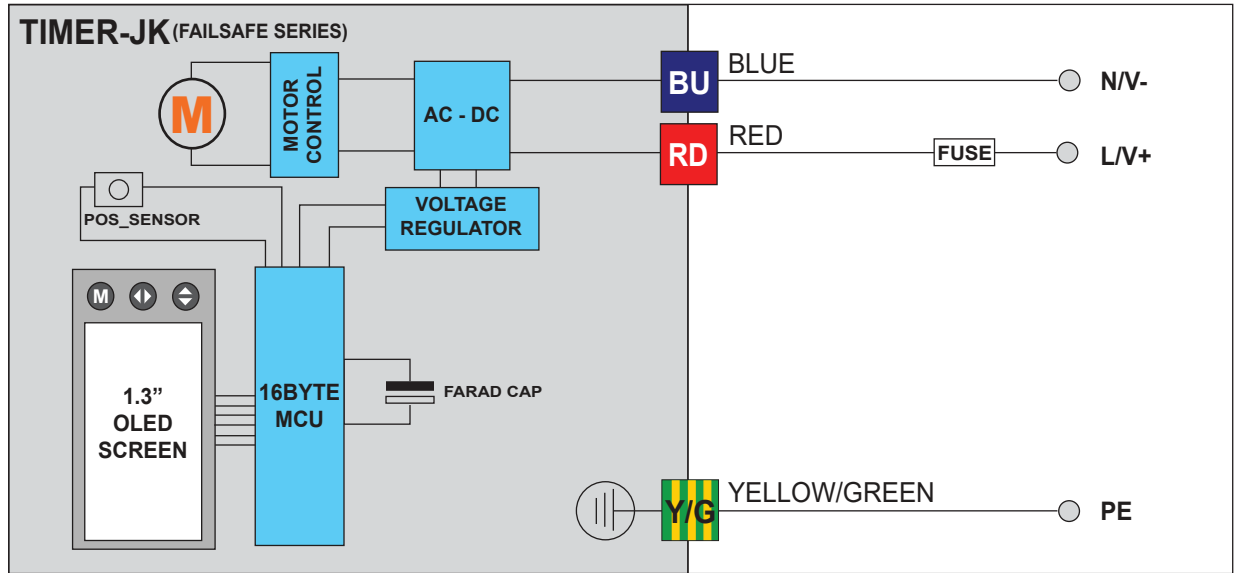
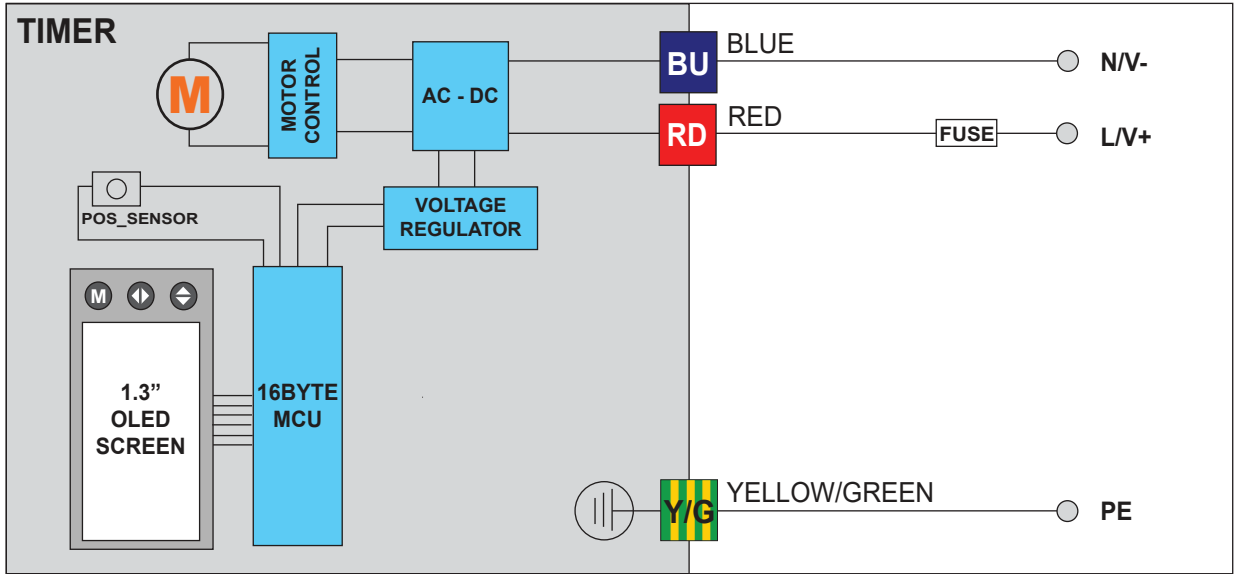
TIMER – FAILSAFE							
TORQUE (lbf-ft)	5	15	37	59	81	148	295
TORQUE (Nm)	6	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	18W	36W	40W	60W	100W	50W	80W
WIRING	TIMER / BLUETOOTH						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	
EXPLOSION* PROOF		✓		✓	✓		



*REFER TO PAGE 1

TR SERIES

SCHEMATIC		TIMER, TIMER-JK						
TORQUE	lbf-ft	8	15	37	59	81	148	295
	Nm	10	20	50	80	110	200	400



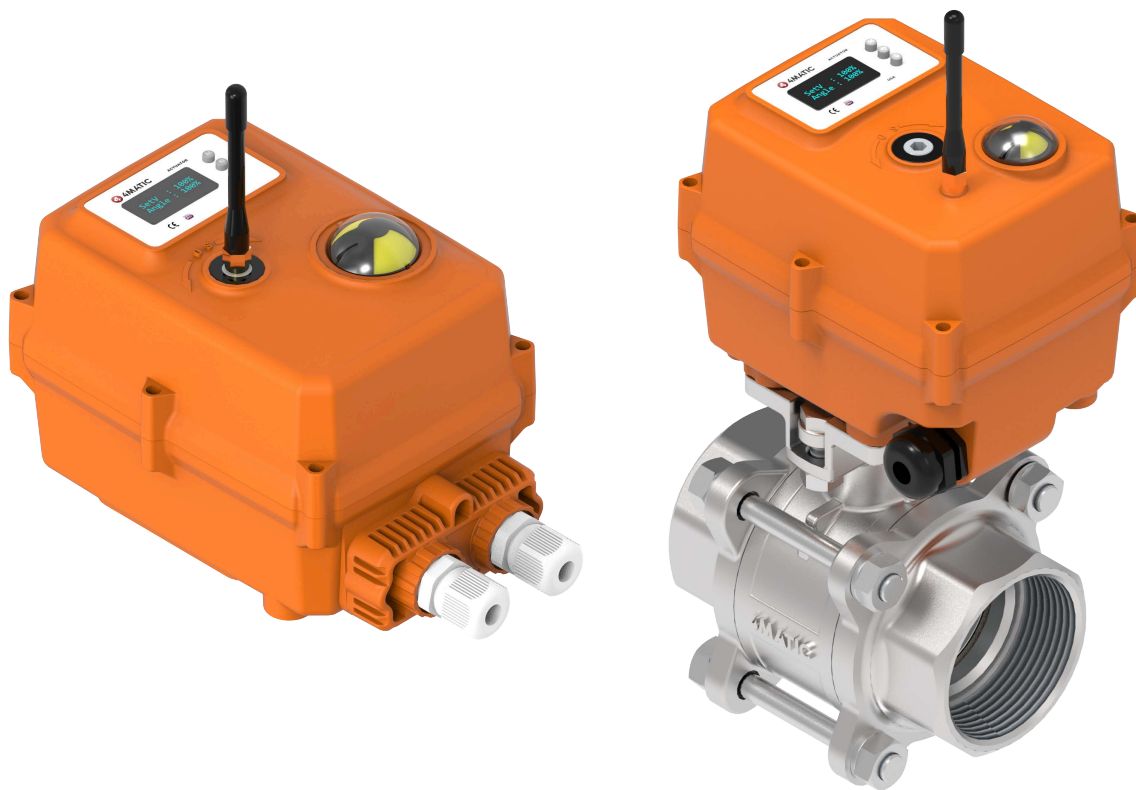
FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
MODE	RF 433 / 868 / 915 MHZ, FSK, LORA, RF OCEAN (SINGLE CONTROL) WIFI, BLUETOOTH, OTA
PROTOCOL	MODBUS
WIRELESS MODULE	SX1278 / SX1276 / A7108
RANGE	1.86 MILES / 3 km
PROTECTION*	IP67 / F TYPE
SPEED REGULATION	PWM*
POSITION INDICATOR	MECHANICAL INDICATOR OR OLED INDICATOR
ACHIEVABLE MODE	2 WAY / 3 WAY
MOTOR	BRUSHLESS HEAVY DUTY, OVERLOAD OR OVERHEATED PROTECTION SELF-LOCKING MECHANISM
CYCLE TIME	UPTO 20,000 TIMES (DEPEND ON TEST CONDITION*)



WIRELESS – BASIC							
TORQUE (lbf-ft)	8	15	37	59	81	148	295
TORQUE (Nm)	10	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	12W	15W	25W	60W	100W	50W	80W
WIRING	FSK / LORA (MODBUS), RF 433 / 868M / 915M, RF OCEAN (SINGLE CONTROL)						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	

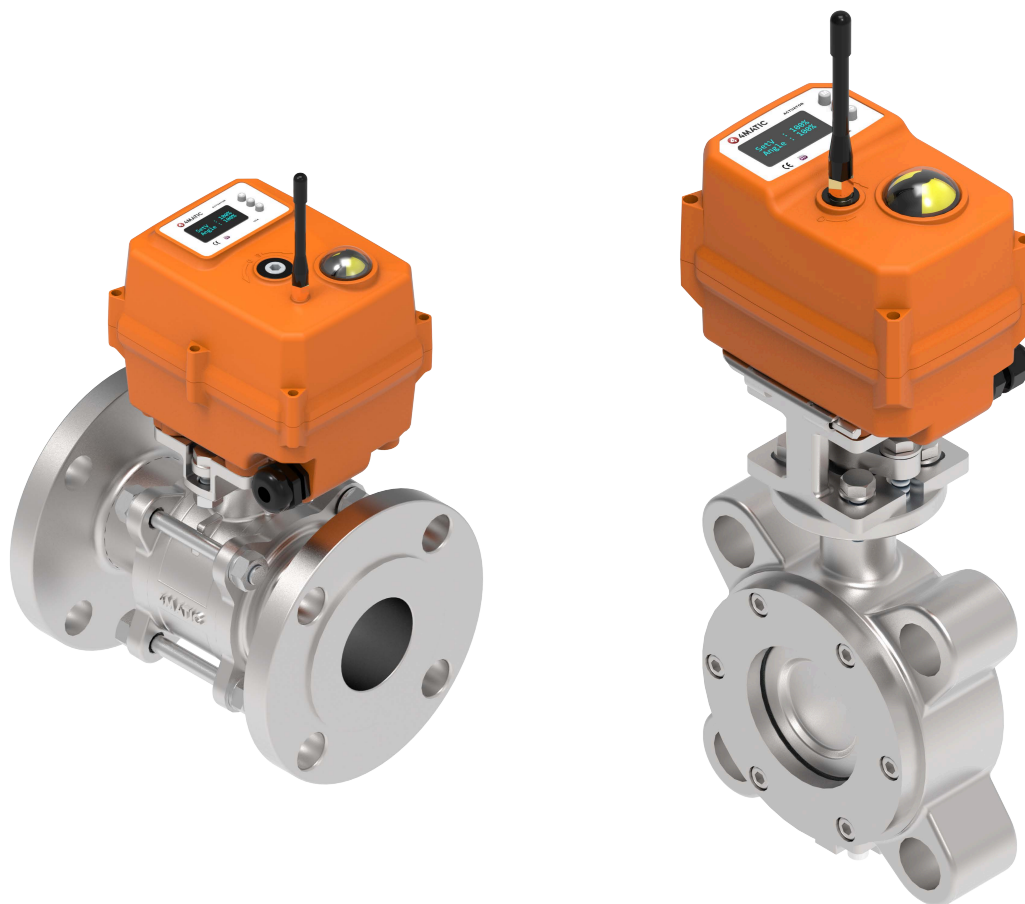
*REFER TO PAGE 1

WIRELESS – HIGH SPEED							
TORQUE (lbf-ft)	5	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	6	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V6	V4	V5				
POWER	24W	25W 85W (V8)	40W	60W	100W	100W	120W
WIRING	FSK / LORA (MODBUS), RF 433 / 868M / 915M, RF OCEAN (SINGLE CONTROL)						
TIME	2s	6s 1s (V8)	5s	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	



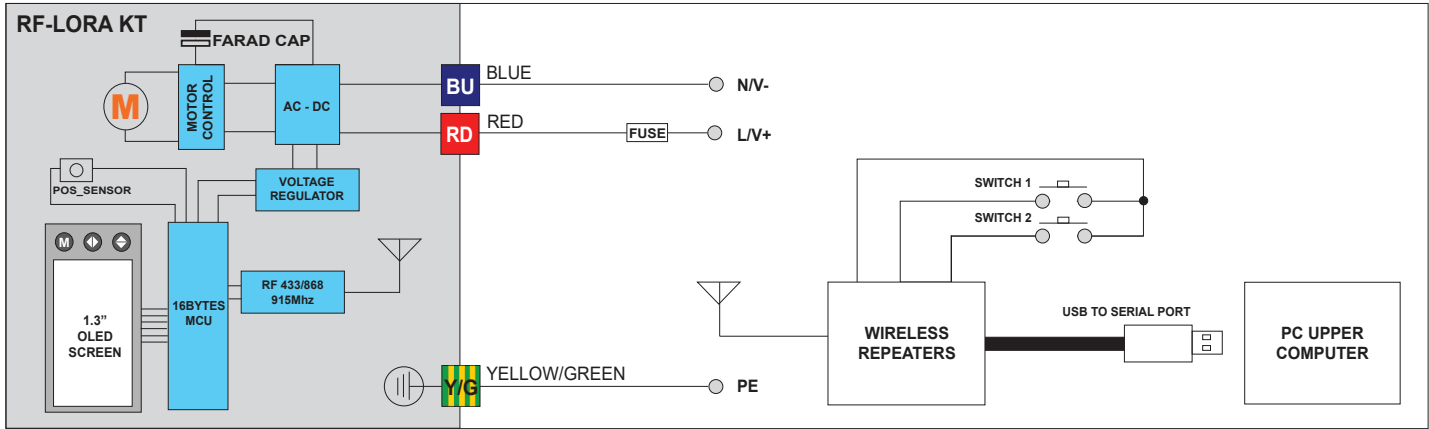
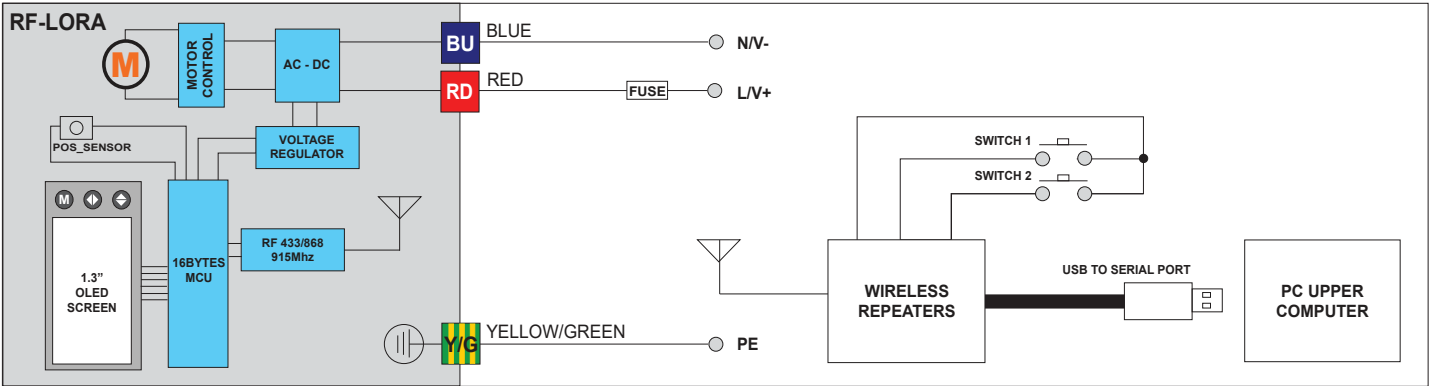
*REFER TO PAGE 1

WIRELESS – FAILSAFE							
TORQUE (lbf-ft)	5	15	37	59	81	148	295
TORQUE (Nm)	6	20	50	80	110	200	400
VOLTAGE*	V5						
POWER	18W	36W	40W	60W	100W	50W	80W
WIRING	FSK / LORA (MODBUS), RF 433 / 868M / 915M, RF OCEAN (SINGLE CONTROL)						
TIME	5s	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON					CLUTCH HEX KEY	
ENCLOSURE	PC + PET	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	11 x 11 F 12 x 12 M	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F05	F03, F04, F05	F05, F07			F07, F10	



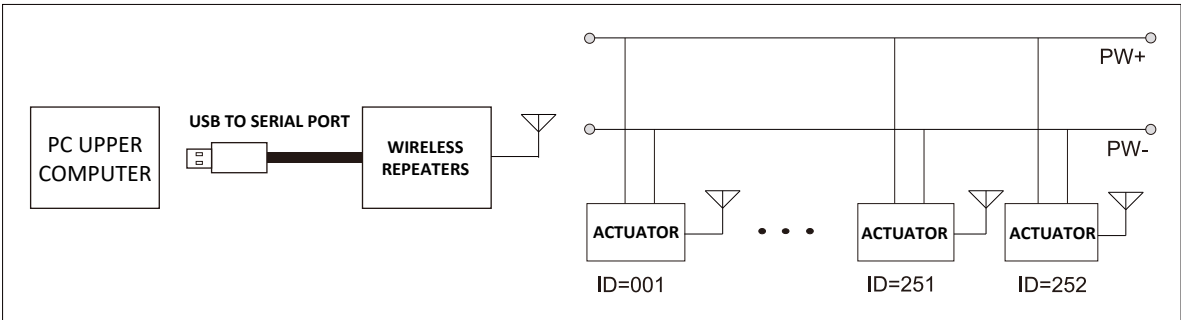
*REFER TO PAGE 1

SCHEMATIC		RF-LORA , RF-LORA-JK						
TORQUE	lbf-ft	8	15	37	59	81	148	295
	Nm	10	20	50	80	110	200	400

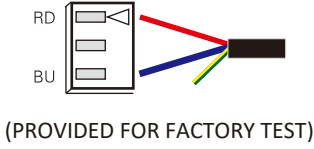
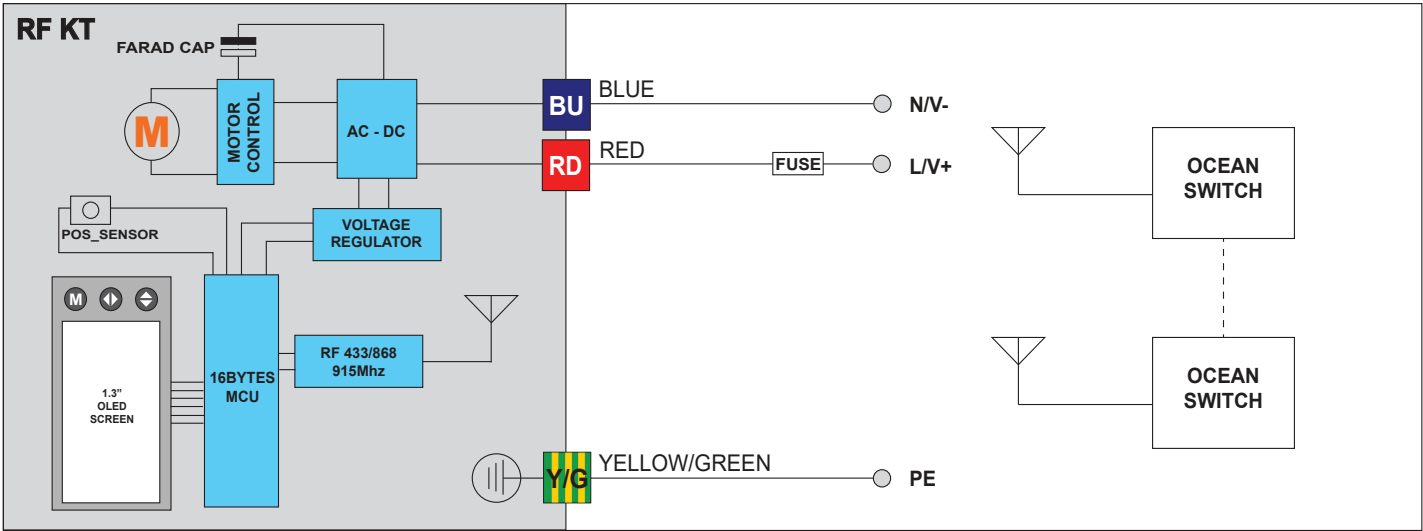
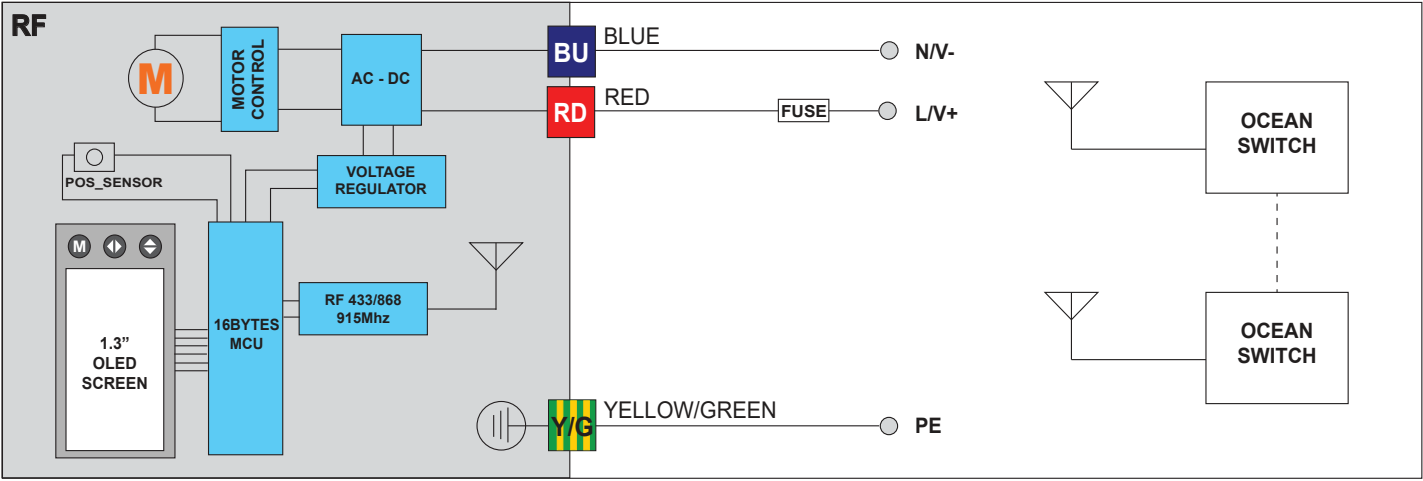


CONTROL INSTRUCTIONS		
PRESSED	CONTROLLER COMMAND FOR VALVE	CONTROLLER DISPLAY
SWITCH 1	ON	SENDING COMMAND & RECEIVING MESSAGES
SWITCH 2	OFF	SENDING COMMAND & RECEIVING MESSAGES

NOTICE
IT IS MORE SUITABLE TO FIRST SET THE CONTROLLED ACTUATOR ID BY OLED MENU FOR SIGNAL CONTROL OF ACTUATOR .
SEVERAL ACTUATORS CAN BE CONTROLLED BY PC SERIAL PORT. THE CONTROLLER INTERIOR COMES WITH USB-TO-SERIAL BREAK. THE CONTROLLER SHOULD BE CONNECTED TO PC TO INSTALL DRIVER.
ONCE THE DRIVER IS INSTALLED THE COMMAND CODE CAN BE SENT BY THE SERIAL BREAK ON PC. PC SHOULD BE COMPATIBLE WITH MODBUS. FOR DETAILS PLEASE REFER TO MODBUS PROTOCOL.



SCHEMATIC		RF, RF-JK						
TORQUE	lbf-ft	8	15	37	59	81	148	295
	Nm	10	20	50	80	110	200	400



FEATURES	
APPLICATION	BALL AND BUTTERFLY VALVE 2 WAY, 3 WAY
FEEDBACK	4~20mA, 0~20mA, 0~10V, 2~10V
MODE	RS485, MODBUS TCP/IP, NBIOT, 4G (CAT1), LORAWAN, BLE, 4~20mA, 0~20mA, 0~10V, 2~10V
PROTECTION	IP67 / F TYPE
SPEED REGULATION	PWM*
MOTOR	HEAVY DUTY BRUSHLESS, OVERLOAD OR OVERHEAT PROTECTION
	SELF-LOCKING MECHANISM
CYCLE TIME	UPTO 20,000 TIMES (DEPEND ON TEST CONDITION*)
ACTUATOR NETWORK	RS485 – 32/64/256
	CANBUS – UPTO 110

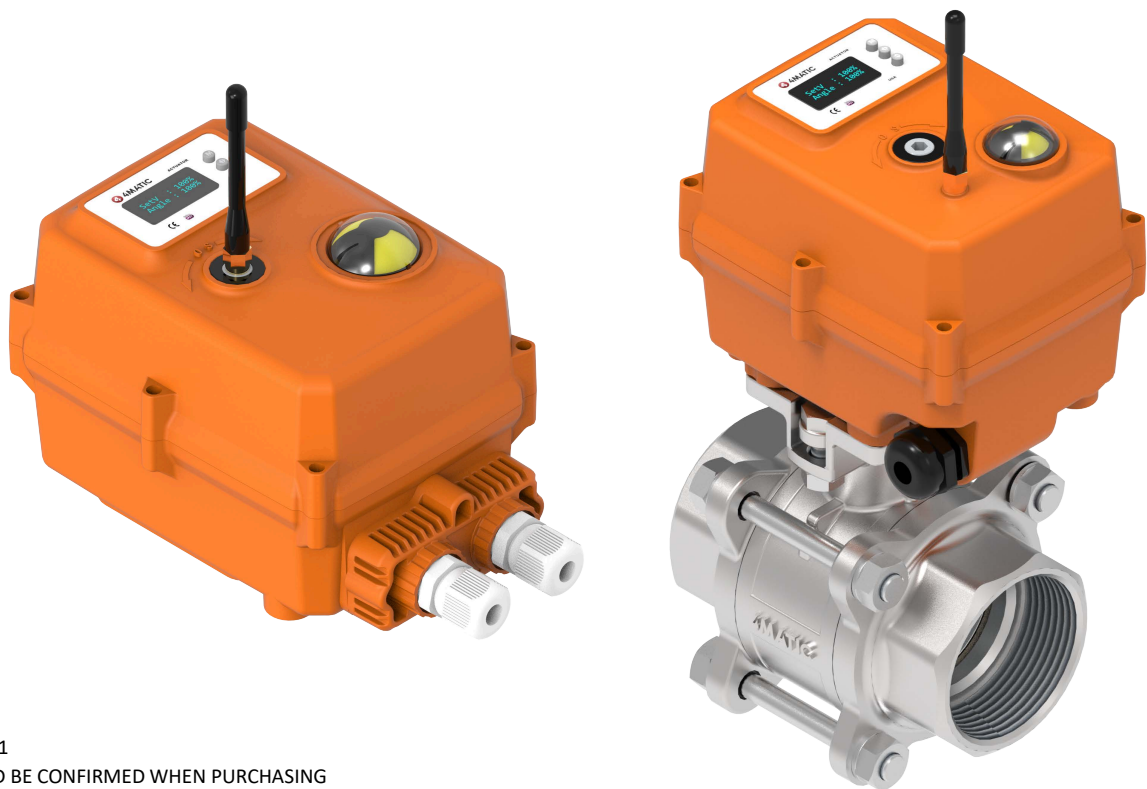


PID – BASIC						
TORQUE (lbf-ft)	15	37	59	81	148	295
TORQUE (Nm)	20	50	80	110	200	400
VOLTAGE*	V5					
POWER	15W	25W	60W	100W	50W	80W
TIME	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON				CLUTCH HEX KEY	
ENCLOSURE	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F04, F05	F05, F07			F07, F10	

*REFER TO PAGE 1

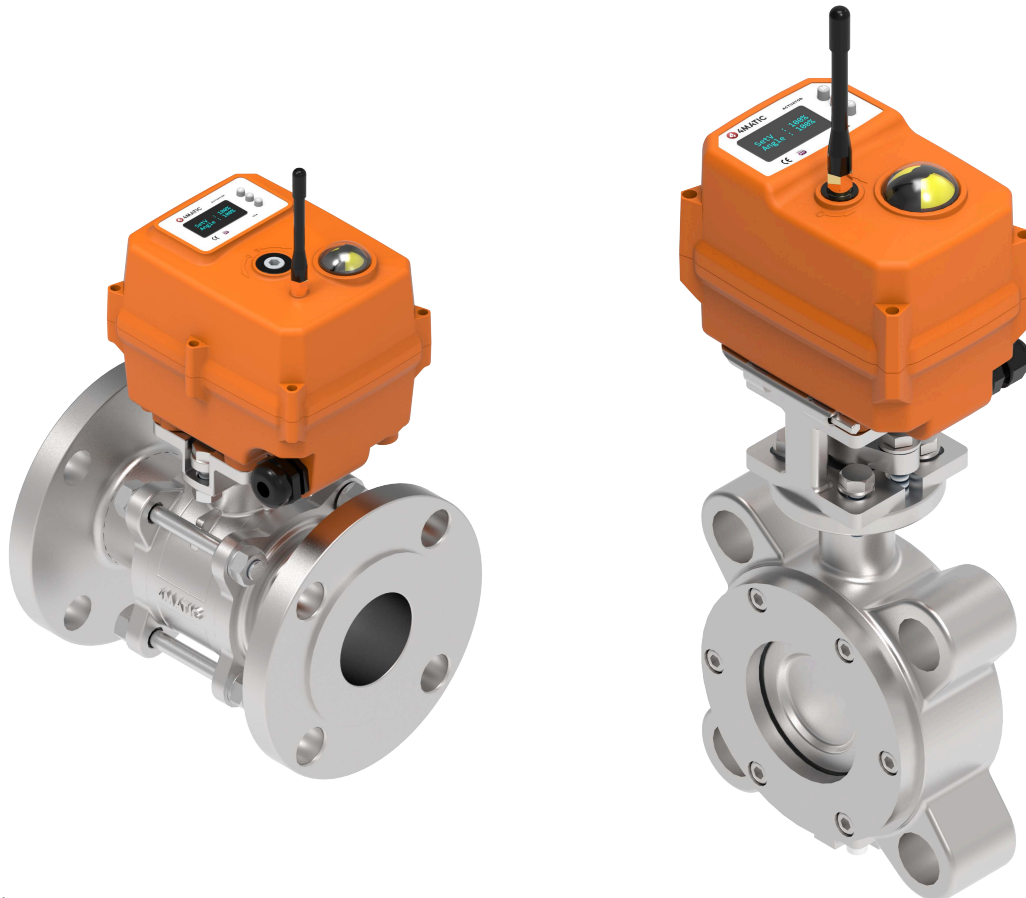
*WIRING SHOULD BE CONFIRMED WHEN PURCHASING

PID – HIGH SPEED						
TORQUE (lbf-ft)	11 15 (V8)	37	59	81	148	295
TORQUE (Nm)	15 20 (V8)	50	80	110	200	400
VOLTAGE*	V4	V5				
POWER	25W 85W (V8)	40W	60W	100W	100W	120W
TIME	6s 1s (V8)	5s	5s	5s	15s	15s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON				CLUTCH HEX KEY	
ENCLOSURE	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	8 X 8 F 11 X 11 F 14 X 14 F 12 X 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	⚙ F / □ M	⚙ F	⚙ F	⚙ F	⚙ F	⚙ F
ISO MOUNT	F03, F04, F05	F05, F07			F07, F10	



*REFER TO PAGE 1
 *WIRING SHOULD BE CONFIRMED WHEN PURCHASING

PID – FAILSAFE						
TORQUE (lbf-ft)	15	37	59	81	148	295
TORQUE (Nm)	20	50	80	110	200	400
VOLTAGE*	V5					
POWER	36W	40W	60W	100W	50W	80W
TIME	10s	12s	10s	10s	25s	25s
MANUAL* OVERRIDE	HEX KEY / PUSH BUTTON				CLUTCH HEX KEY	
ENCLOSURE	ABS / ALUMINIUM				PC + PET	
OUTPUT SHAFT (mm)	8 x 8 F 11 x 11 F 14 x 14 F 12 x 12 M	14 x 14 HEIGHT: 15	17 x 17 HEIGHT: 20		22 x 22 HEIGHT: 30	
	☼ F / □ M	☼ F	☼ F	☼ F	☼ F	☼ F
ISO MOUNT	F03, F04, F05	F05, F07			F07, F10	

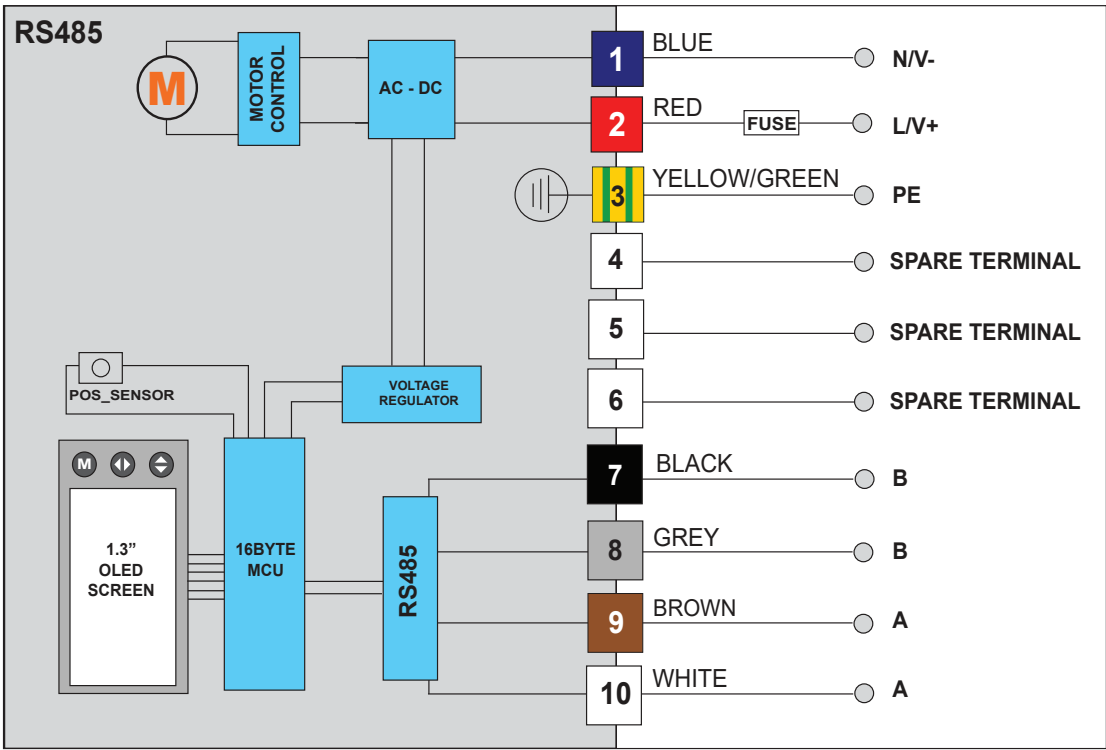


*REFER TO PAGE 1

*WIRING SHOULD BE CONFIRMED WHEN PURCHASING

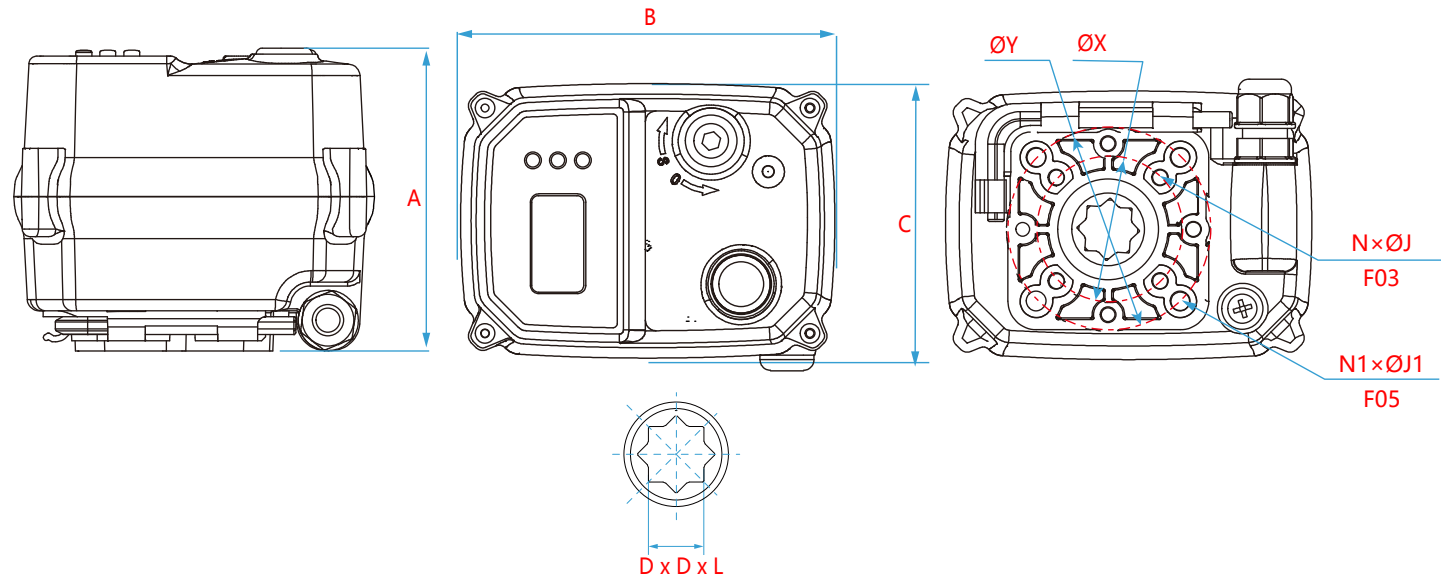
PD SERIES

SCHEMATIC		RS485						
TORQUE	lbf-ft	8	15	37	59	81	148	295
	Nm	10	20	50	80	110	200	400



TORQUE: 5 lbf-ft (6 Nm) / 8 lbf-ft (10 Nm)

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



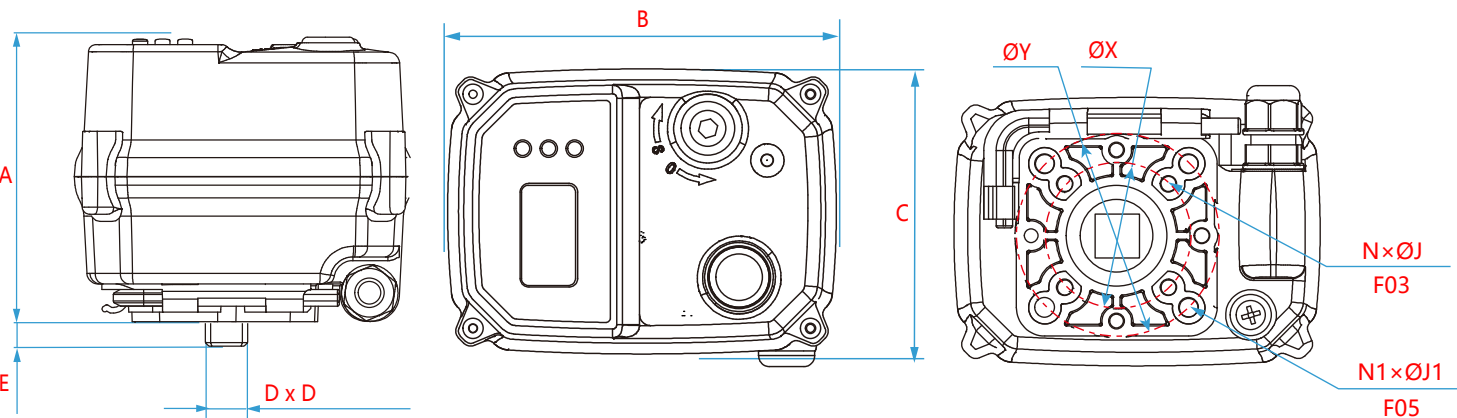
DIMENSIONS

UNIT	A	B	C	D x D x L
INCH	2.99"	3.54"	2.60"	0.43" x 0.43" x 0.43"
MM	76	90	66	11 x 11 x 11

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	N	N1	ØJ	ØJ1
F03 - F05	INCH	1.42"	1.97"	4	4	M5	M6
F03 - F05	MM	36	50				

WITH BRACKET [MALE OCTAGON OUTPUT SHAFT]



DIMENSIONS

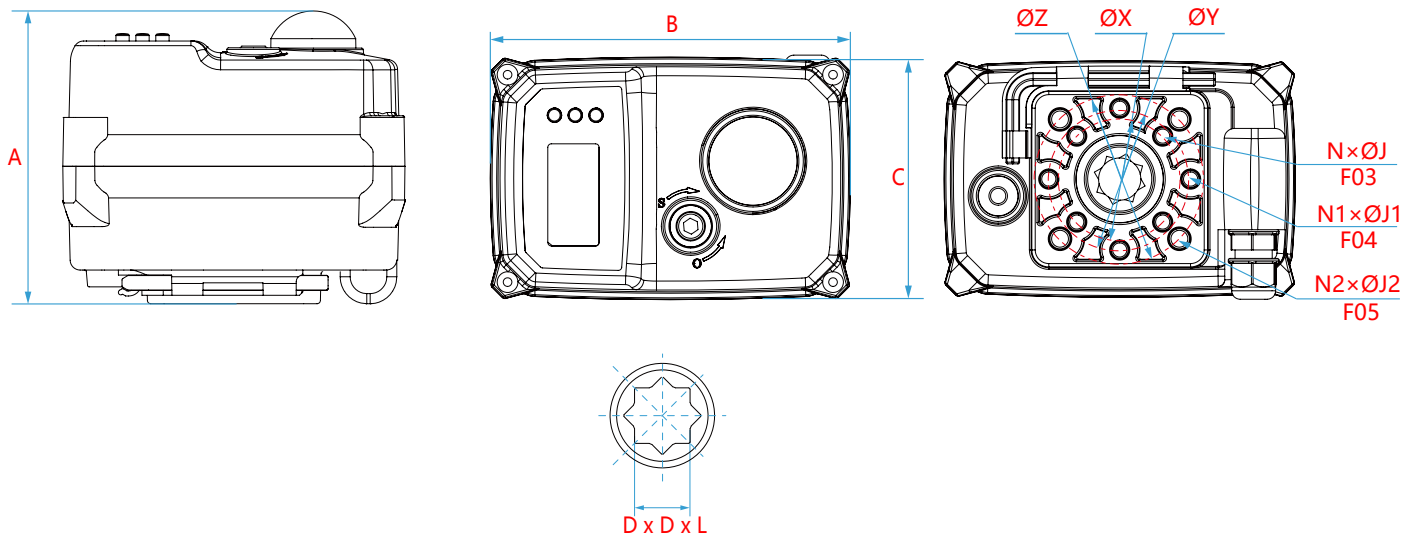
UNIT	A	B	C	D x D	E
INCH	2.99"	3.54"	2.60"	0.47" x 0.47"	0.37"
MM	76	90	66	12 x 12	9.5

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	N	N1	ØJ	ØJ1
F03 - F05	INCH	1.42"	1.97"	4	4	M5	M6
F03 - F05	MM	36	50				

TORQUE: 15 lbf-ft (20 Nm)

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



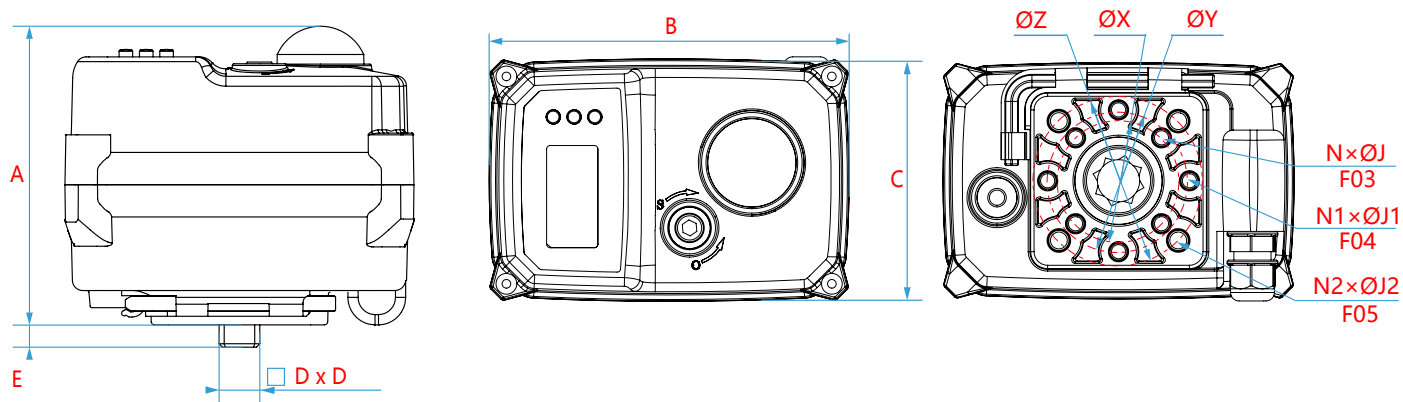
DIMENSION

UNIT	A	B	C	D x D x L
INCH	3.54"	4.09"	2.76"	0.31" x 0.31" x 0.59" 0.43" x 0.43" x 0.59" 0.55" x 0.55" x 0.59"
MM	90	104	70	8 x 8 x 15 11 x 11 x 15 14 x 14 x 15

TOP MOUNT

ISO 5211	UNIT	$\varnothing X$	$\varnothing Y$	$\varnothing Z$	N	N1	N2	$\varnothing J$	$\varnothing J1$	$\varnothing J2$
F03 F04 F05	INCH	1.42"	1.65"	1.97"	4	4	4	M5	M5	M6
F03 F04 F05	MM	36	42	50						

WITH BRACKET [MALE OCTAGON OUTPUT SHAFT]



DIMENSION

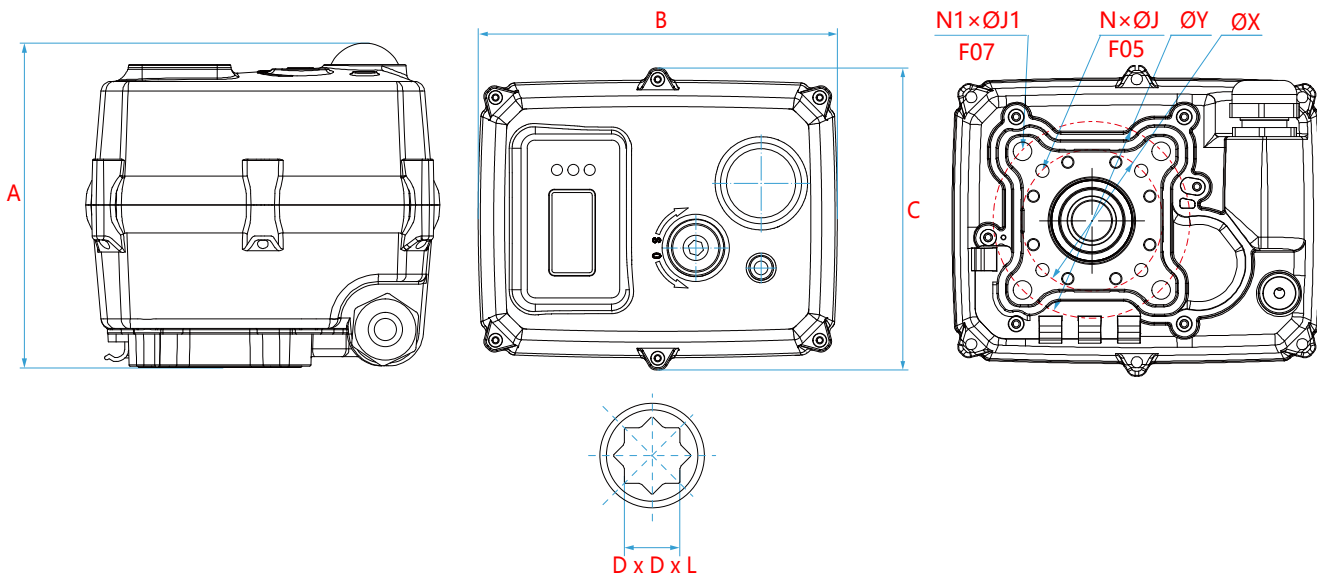
UNIT	A	B	C	D x D	E
INCH	3.54"	4.09"	2.76"	0.47" x 0.47"	0.26"
MM	90	104	70	12 x 12	6.5

TOP MOUNT

ISO 5211	UNIT	$\varnothing X$	$\varnothing Y$	$\varnothing Z$	N	N1	N2	$\varnothing J$	$\varnothing J1$	$\varnothing J2$
F03 F04 F05	INCH	1.42"	1.65"	1.97"	4	4	4	M5	M5	M6
F03 F04 F05	MM	36	42	50						

TORQUE: 37 lbf-ft (50 Nm)

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



DIMENSION

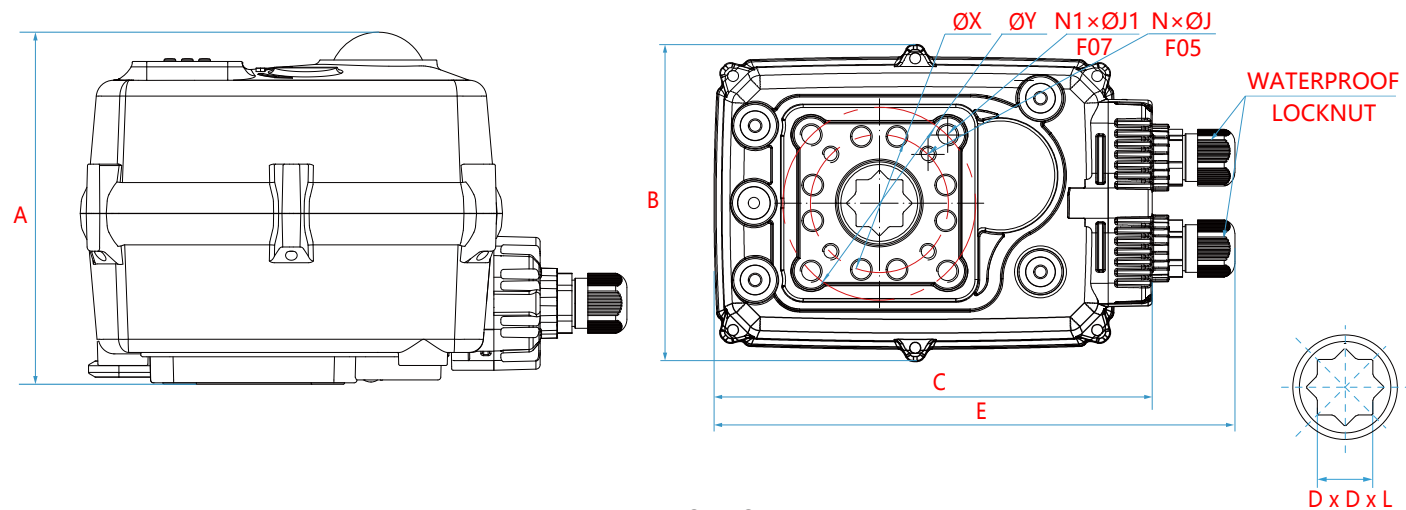
UNIT	A	B	C	D x D x L
INCH	4.76"	5.20"	4.37"	0.55" x 0.55" x 0.59"
MM	121	132	111	14 x 14 x 15

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	N	N1	ØJ	ØJ1
F05 - F07	INCH	1.97"	2.76"	4	4	M6	M8
F05 - F07	MM	50	70				

TORQUE: 59 lbf-ft (80 Nm) / 81 lbf-ft (110 Nm)

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



DIMENSION

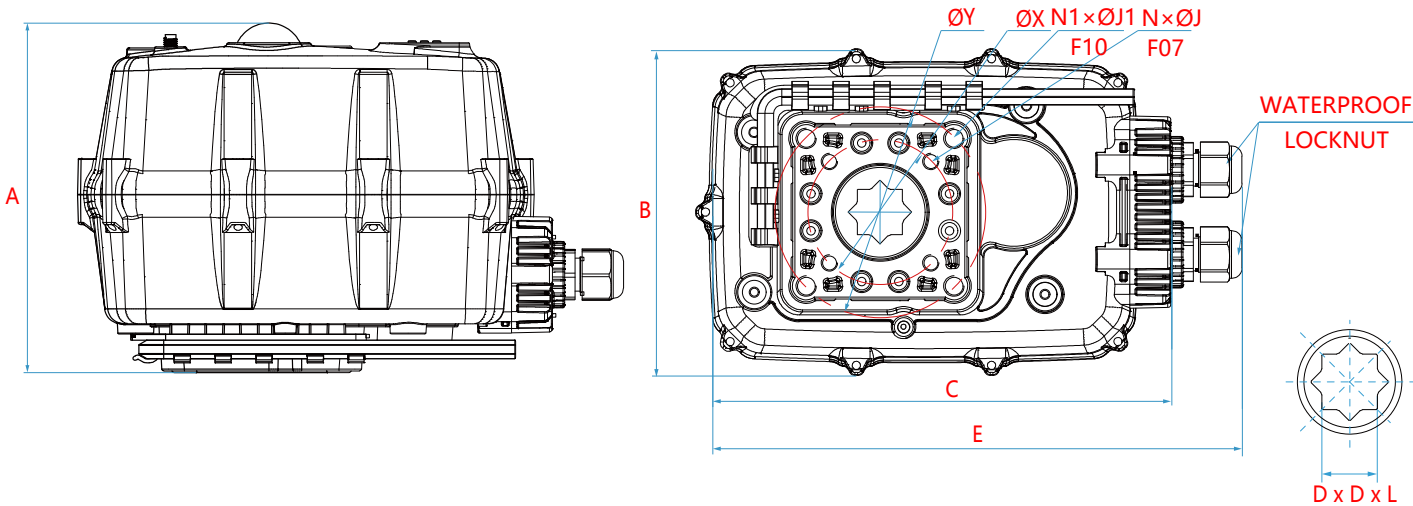
UNIT	A	B	C	D x D x L	E
INCH	4.80"	4.53"	6.26"	0.67" X 0.67" x 0.79"	7.44"
MM	122	115	159	17 x 17 x 20	189

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	N	N1	ØJ	ØJ1	LOCKNUT
F05 - F07	INCH	1.97"	2.76"	4	4	M6	M8	M14 x 1.5
F05 - F07	MM	50	70					

TORQUE: 148 lbf-ft (200 Nm) / 295 lbf-ft (400 Nm)

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



DIMENSION

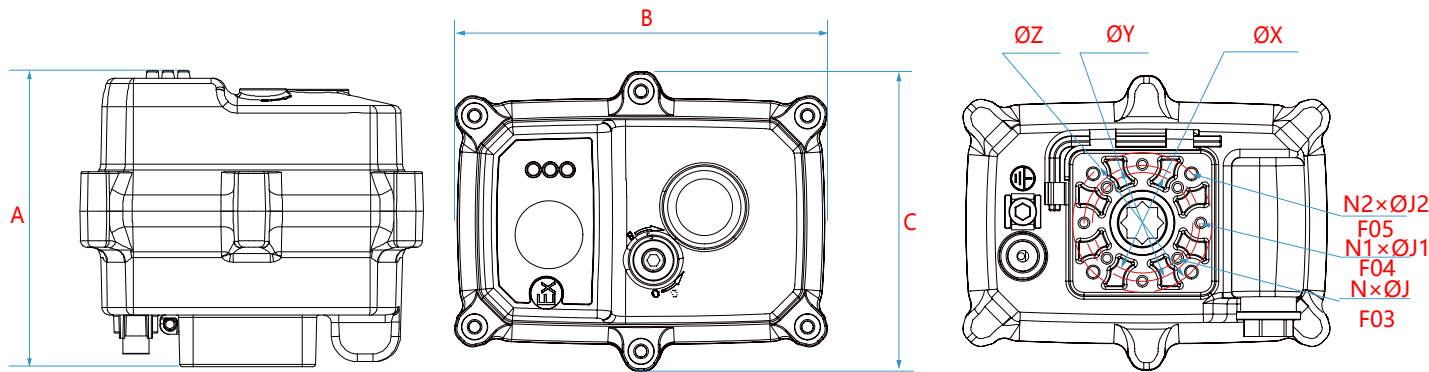
UNIT	A	B	C	D x D x L	E
INCH	6.73"	6.30"	9.13"	0.87" X 0.87" x 1.18"	10.51"
MM	171	160	232	22 x 22 x 30	267

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	N	N1	ØJ	ØJ1	LOCKNUT
F07 - F10	INCH	2.76"	4.02"	4	4	M8	M10	M20 x 1.5
F07 - F10	MM	70	102					

TORQUE: 15 lbf-ft (20 Nm) - EXPLOSION PROOF

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



DIMENSION

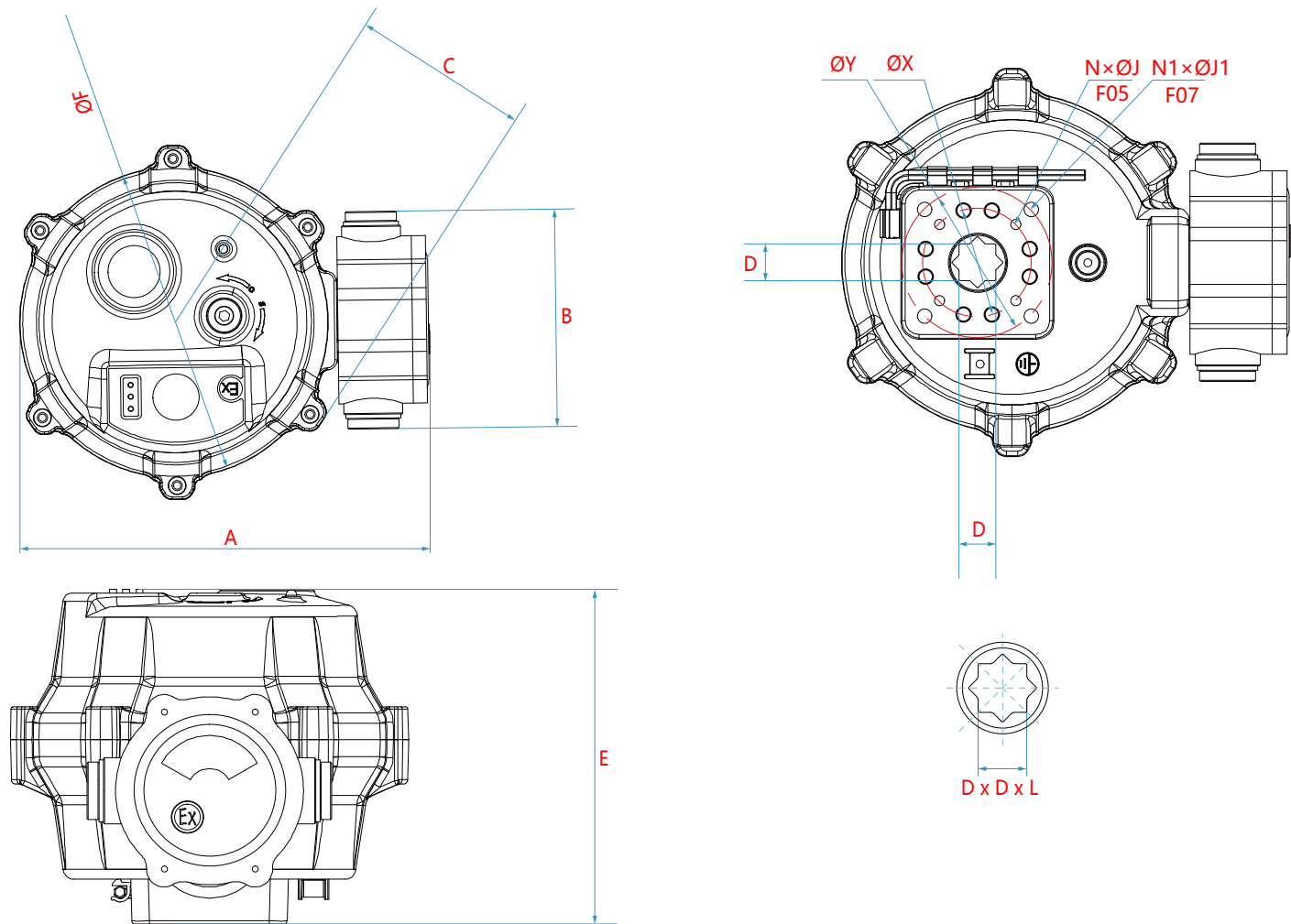
UNIT	A	B	C	D x D x L
INCH	4.49"	5.20"	4.17"	0.43" x 0.43" x 0.59"
MM	114	132	106	11 x 11 x 15

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	ØZ	N	N1	N2	ØJ	ØJ1	ØJ2
F03-F04 F05	INCH	1.42"	1.65"	1.97"	4	4	4	M5	M5	M6
F03-F04 F05	MM	36	42	50						

TORQUE: 59 lbf-ft (80 Nm) / 81 lbf-ft (110 Nm) - EXPLOSION PROOF

DIRECT MOUNT [FEMALE OCTAGON OUTPUT SHAFT]



DIMENSION

UNIT	A	B	C	D x D x L	E	ØF
INCH	8.19"	4.29"	3.54"	0.67" x 0.67" x 0.79"	5.95"	6.22"
MM	208	109	90	17 x 17 x 20	151.1	158

TOP MOUNT

ISO 5211	UNIT	ØX	ØY	N	N1	ØJ	ØJ1
F05 - F07	INCH	1.97"	2.76"	4	4	M6	M8
F05 - F07	MM	50	70				

ELECTRIC ACTUATOR – ORANGE SERIES

1	1	2	2	-	3	4	5	6	-	7	8	9	10	-	11
---	---	---	---	---	---	---	---	---	---	---	---	---	----	---	----

1. ACTUATOR TYPE	CODE	6. FEEDBACK	CODE	10. TORQUE SHAFT	CODE
SMART	SM	POSITIVE	S	OCTAGON (F)	1
INTELLIGENT	IT	ACTIVE	P	SQUARE (M)	2
MODULATING	MD	POTENTIOMETER	R		
BUS	BS	RELAY	J		
TIMER	TR	4-20 mA	A		
WIRELESS	WL	0-40 mA	O		
PID	PD	0-20 mA	D		
		0-5 V	W		
		1-5 V	X		
		0-10 V	Y		
		2-10 V	Z		
		RS485	H		
		CANBUS 2.0B	C		
		TIMER	T		
		FSK/LORA (MODBUS)	F		
		RF 433/868M/915M	M		
		RF OCEAN	E		
		BLUETOOTH	B		
2. TORQUE		7. CONTROL		11. FEATURE	
5 lbf-ft / 6 Nm	0F	POSITIVE	S	EXPLOSION PROOF	E
8 lbf-ft / 10 Nm	01	ACTIVE	P	NONE	-
15 lbf-ft / 20 Nm OR 11 LBF-FT / 15 Nm	02	POTENTIOMETER	R		
37 lbf-ft / 50 Nm	05	RELAY	J		
59 lbf-ft / 80 Nm	08	4-20 mA	A		
81 lbf-ft / 110 Nm	11	0-40 mA	O		
148 lbf-ft / 200 Nm	20	0-20 MA	D		
295 lbf-ft / 400 Nm	40	0-5 V	W		
		1-5 V	X		
		0-10 V	Y		
		2-10 V	Z		
		RS485	H		
		CANBUS 2.0B	C		
		TIMER	T		
		FSK/LORA (MODBUS)	F		
		RF 433/868M/915M	M		
		RF OCEAN	E		
		BLUETOOTH	B		
3. OPTION		8. PROTECTION			
BASIC	B	IP67	7		
HIGHSPEED	H	F TYPE	F		
FAILSAFE	F				
4. VOLTAGE		9. ENCLOSURE			
12V DC	A	ABS	A		
24V AC	B	ALUMINIUM	D		
24V DC	C	PC+PET	P		
110V AC	1				
230V AC	2				
95-265V AC	M				
95-265V DC	N				
5. WIRING					
Q2	1				
Q3	2				
QD3	3				
Q33	4				
Q43	5				
Q44	6				
JK32	K				
4-20 mA	A				
0-40 mA	O				
0-5 V	W				
1-5 V	X				
0-10 V	Y				
2-10 V	Z				
RS485	H				
CANBUS2.0B	C				
TIMER	T				
BLUETOOTH	B				
FSK/LORA (MODBUS)	F				
RADIO FREQUENCY 433/868M/915M	M				
RADIO FREQUENCY OCEAN	E				



8 lbf-ft (10 Nm)



15 lbf-ft (20 Nm)



37 lbf-ft (50 Nm)



59 lbf-ft (80 Nm)
81 lbf-ft (110 Nm)



148 lbf-ft (200 Nm)
295 lbf-ft (400 Nm)

EXPLOSION PROOF 



15 lbf-ft (20 Nm)



59 lbf-ft (80 Nm)
81 lbf-ft (110 Nm)



MANUFACTURER



4MATIC

176 DETROIT ST # 1
CARY IL 60013 USA

business@4matic.com
4matic.com

P: 1 773 856 3555

