

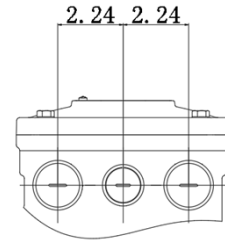
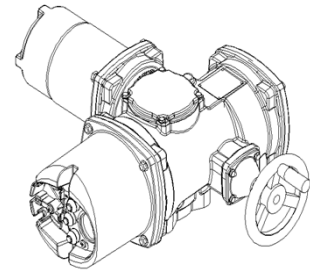
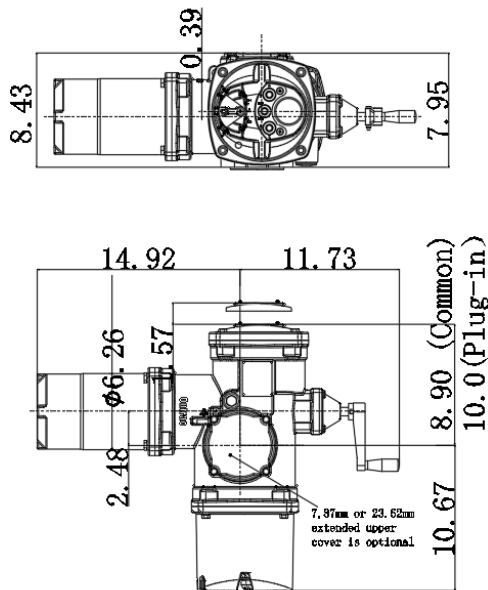


Technical data

Model	Tripping torque (ft-lb)	Switch-off torque* (ft-lb)	Motor type	Speed (RPM)	Rising valve stem dia. (inch)	Flange (MSS SP-102)	Rated power* (KW)	Rated current* (A)	Fuse (A)	Weight (lb)
MME850	221	177-443	S4	14-35	2.17	FA14	2.72	4.59	3x16A	53

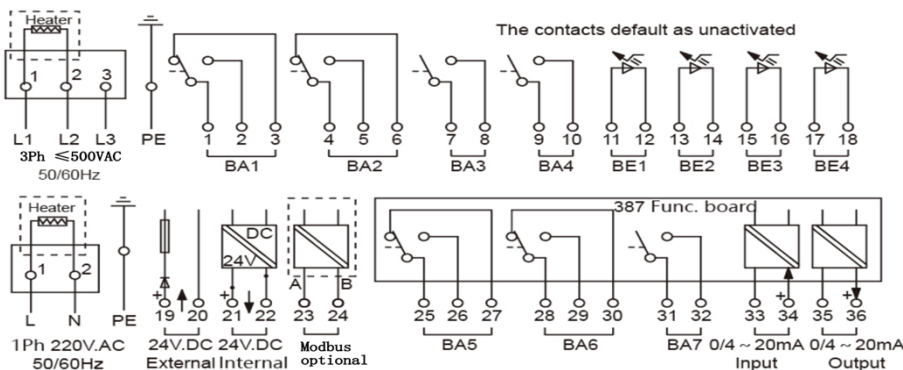
Note: *1.) It is the reference for 380VAC 50Hz 3PH power supply; 2.) Rated power/current 100% load;3.) Tripping torque is recommended modulation torque rated S4-25%.

Mechanical Dimensions-Integrated type (inch)



Default Hole Size: 1-3/8"-6

Analog Signal Input Wiring Diagram



The status contact in the figure is in an unrigged state (default setting)

- Optional 387 board is required to use the function in dotted line closed part.
- BA contact is for output status. BE contact is for digital input.
- Pin 19, 20 are external 24V power supply plug-in terminals. If use, when 380V main power supply is out, actuator's output signals remain, analog output terminal (387 board required) will remain its own status, the LED screen of actuator displays normally.
- 3 phase 550/660VAC are optional

Input port factory default function settings:

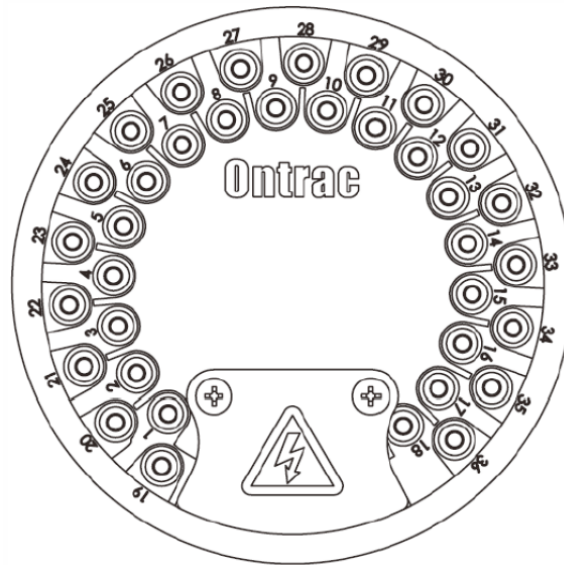
- BE1 01 Operation command in "OPEN" direction
- BE2 02 Operation command in "CLOSE" direction
- BE3 03 Shutdown command
- BE4 04 Fault alarm reset command

Output port factory default function settings:

- BA1 01 Ready to run
- BA2 02 Fault alarm
- BA3 03 Open to the end position
- BA4 04 Close to the end position
- BA5 05 Exceeded torque in "OPEN" direction
- BA6 06 Exceeded torque in "CLOSE" direction
- BA7 07 Intermediate valve position indication 1

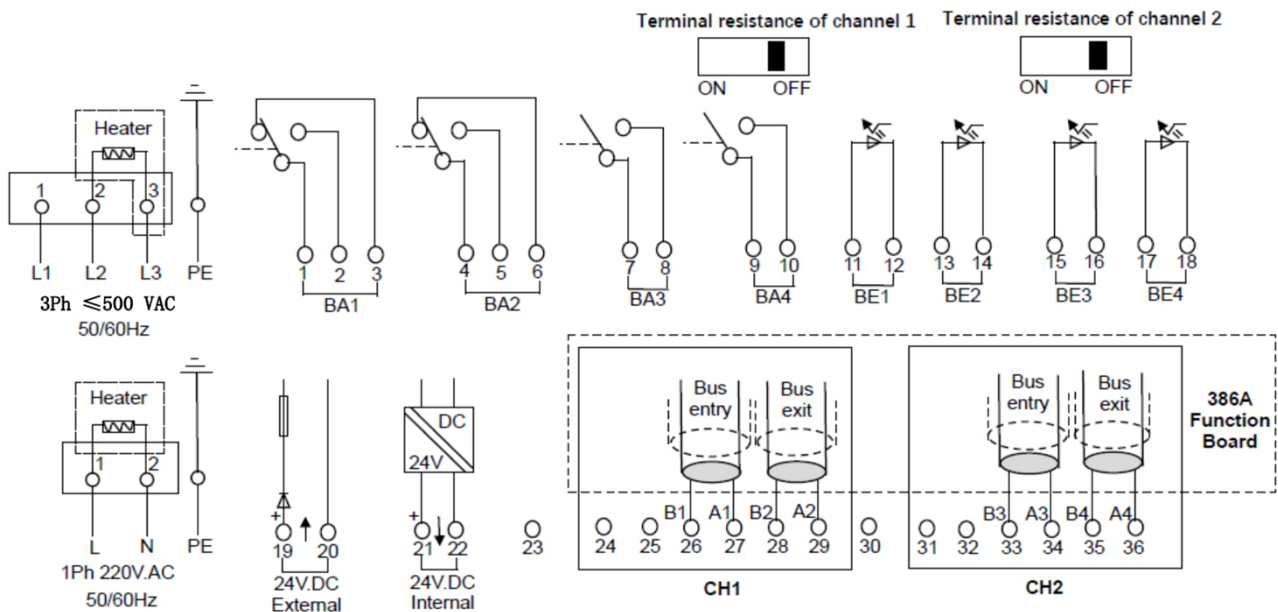


Explosion Proof Wiring Board



Schematic Diagram of Terminal Block

Profibus-DP Wiring Diagram, 386A board

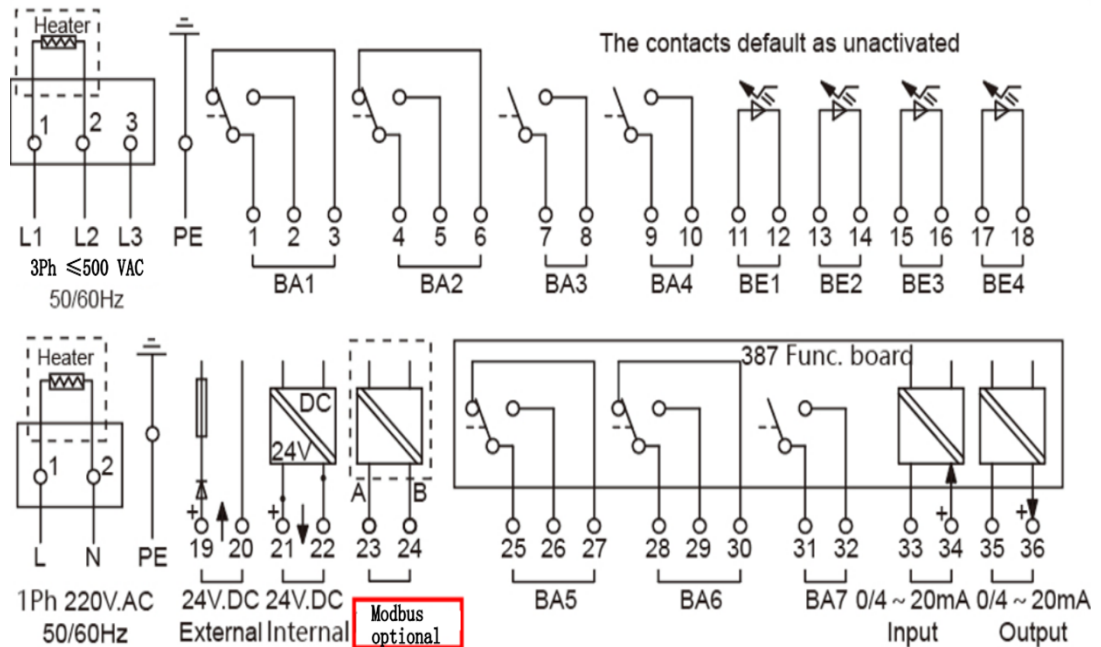


The status contact in the figure is in an unriggerd state (default setting)

1. Optional Profibus-DP 386 board is required to use the function in dotted line closed part, with channel 1&2 redundancy
2. BA contact is for output status. BE contact is for digital input.
3. Pin 19, 20 are external 24V power supply plug-in terminals. If use, when 380V main power supply is out, actuator's output signals remain, analog output terminal (386A board required) will remain its own status, the LED screen of actuator displays normally.
4. 3 phase 550/660VAC are optional
5. Profibus DP (Decentralized Peripherals) up to a baud rate of 1.5Mbit/s. Our actuators are supplied with active bus termination. The electrical connections are via RS485 type A. Double channel Profibus to give redundancy available as option.



Modbus Wiring Diagram, 388 board

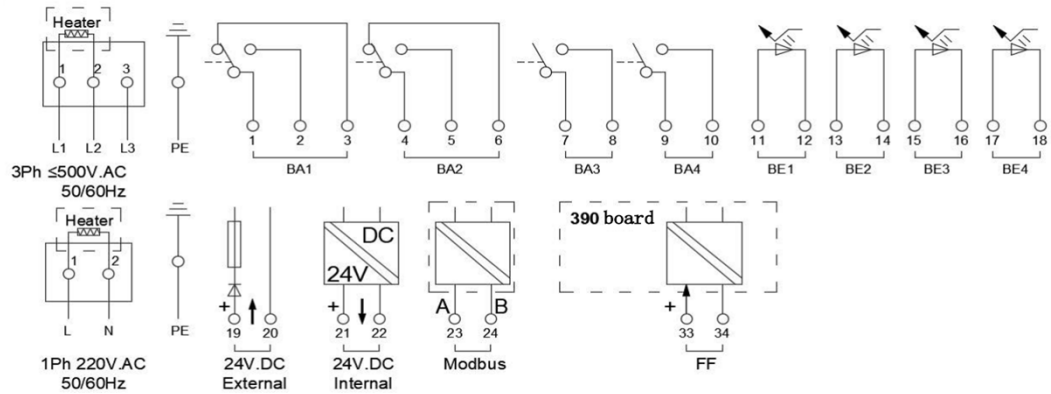


1. The status contact in the figure is in an unrigged state (default setting), 3 phase 550/660VAC are optional
2. Optional 388 board is required to use the function in dotted line closed part.
3. BA contact is for output status. BE contact is for digital input.
4. Pin 19, 20 are external 24V power supply plug-in terminals. If use, when 380V main power supply is out, actuator's output signals remain, analog output terminal (390&384 board required) will remain its own status, the LED screen of actuator displays normally.
5. Pin 21, 22 are internal 24V power terminals, can be used to power customer's input signal, limit to 30mA.
6. Modbus: Ontrac offers RTU protocol communications at a baud rate up to 38.4kbits/s. Our factory default speed is 9.6kbits/s giving a 0.932-mile maximum distance between nodes. We use a master / slave query response polling cycle with CRC (Cyclic Redundancy Check).

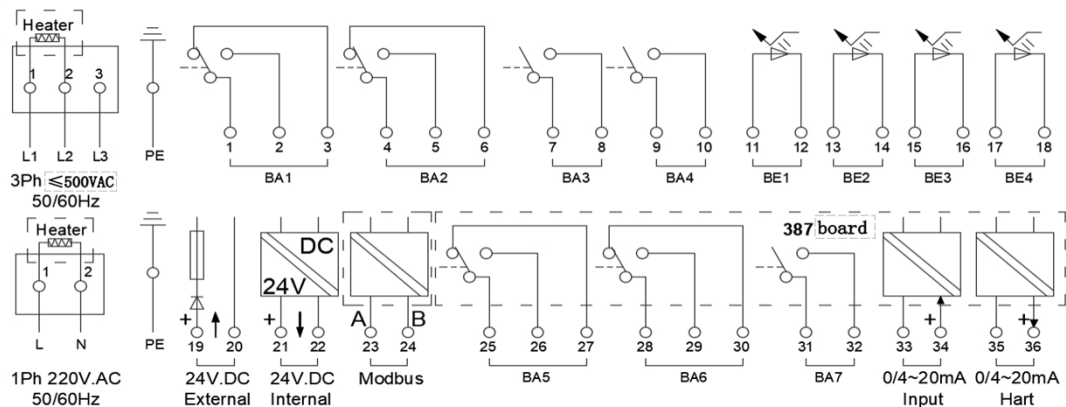


Foundation Field bus/ Hart Wiring Diagram,390 384 board

Foundation Fieldbus 390 board



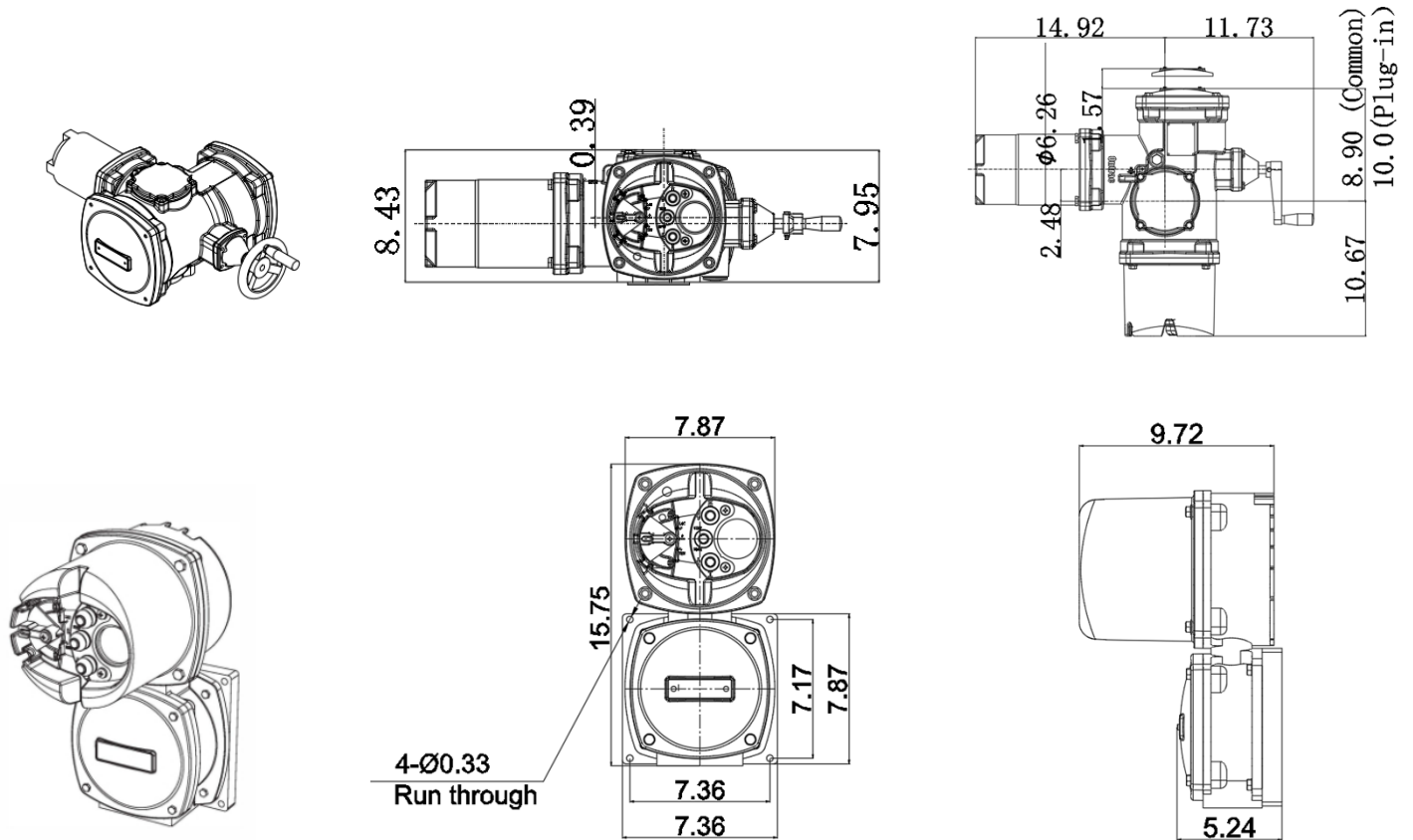
Hart 384 board



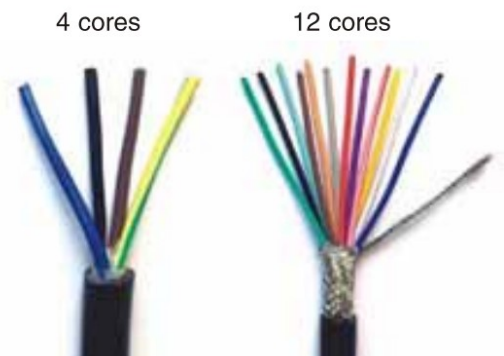
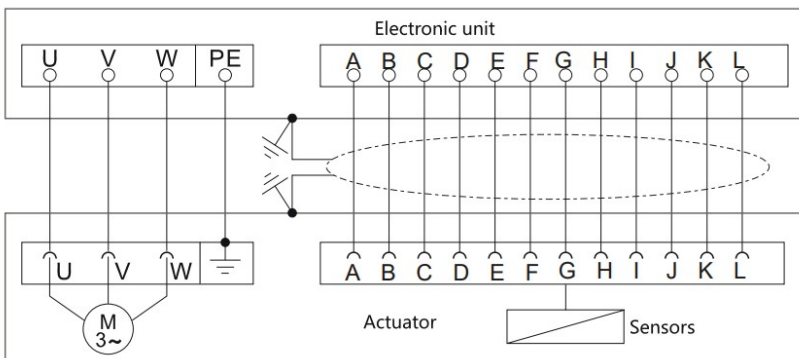
1. The status contact in the figure is in an unrigged state (default setting), 3 phase 550/660VAC are optional
2. Optional 390&388&384 board is required to use the function in dotted line closed part.
3. BA contact is for output status. BE contact is for digital input.
4. Pin 19, 20 are external 24V power supply plug-in terminals. If use, when 380V main power supply is out, actuator's output signals remain, analog output terminal (390&384 board required) will remain its own status, the LED screen of actuator displays normally.
5. Pin 21, 22 are internal 24V power terminals, can be used to power customer's input signal, limit to 30mA.
6. Foundation Fieldbus: Ontrac offers Foundation Fieldbus card designed for use on a communications bus operating at 31.25 Kbit/s
7. Hart: Ontrac can provide HART Communication Protocol (Highway Addressable Remote Transducer) connectivity. HART allows the use of conventional 4 – 20 mA wiring



Mechanical Dimensions-Split type (inch)



Connection Diagram-Split type



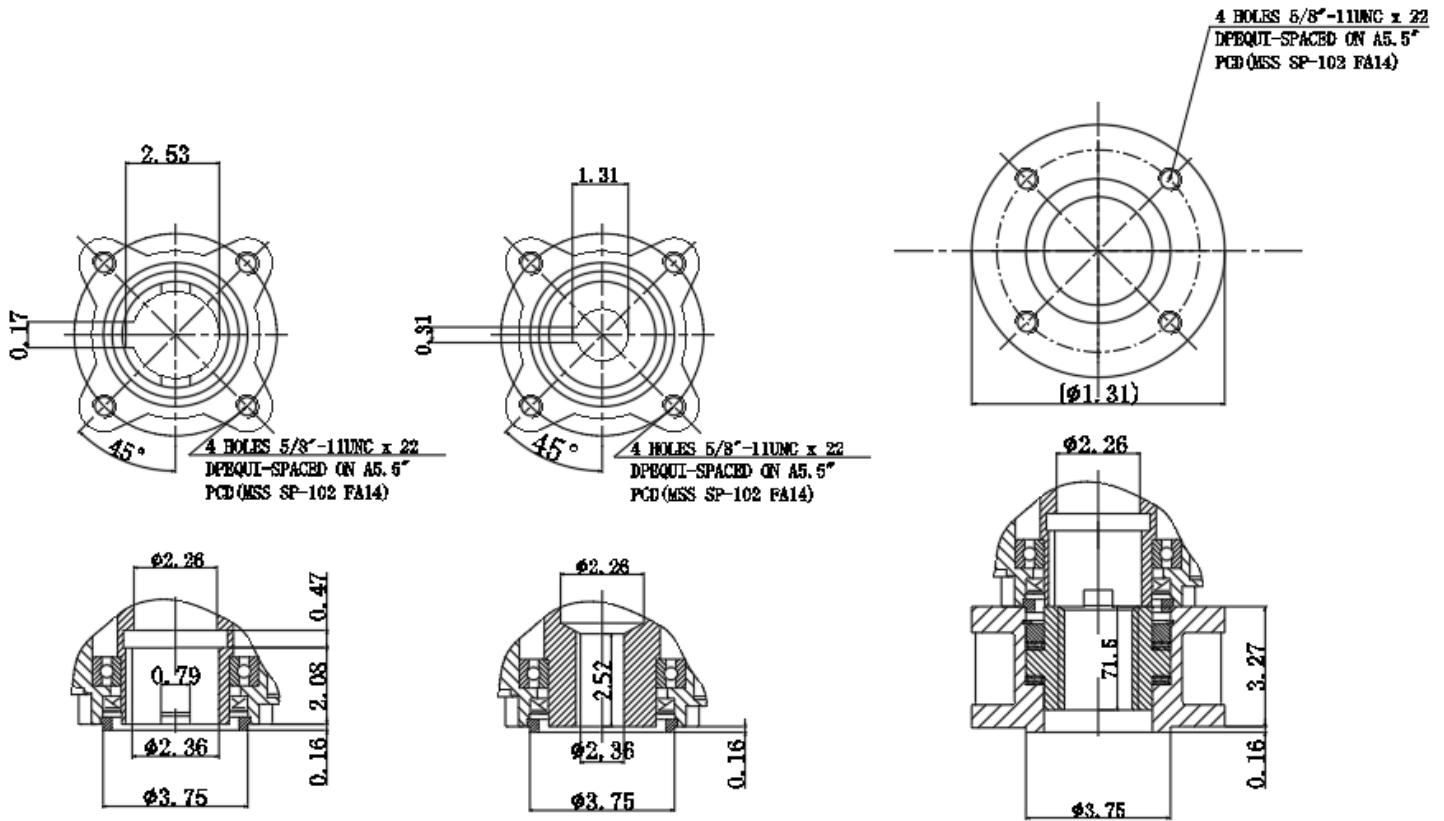
1. The sensor signal cable shall be a shielded 12 core cable; The cross-sectional area of the line shall not be less than 2.5mm², and the length of the line shall not exceed 10m;
2. The motor connecting wire shall be a shielded wire with a cross-sectional area of not less than 4mm², and attention shall be paid to the connection between the electric unit and the actuator part; **(Note: The motor terminal of the electric unit is yellow green terminal, and the three-phase power input terminal is gray terminal);**
3. In high-temperature environments, please use high-temperature cables, incoming line fittings (connectors), cable protection shell, etc. that meet the onsite requirements;
4. The figure above is only the wiring diagram between the electric unit and the actuator. Please refer to the wiring diagram of conventional products for control wiring on multitrack operation manual



Output shaft

MME 850	Non-thrust		With-thrust
Mechanical Interface type	B1	B3	A1
Flange size (MSS SP-102)	FA14	FA14	FA14
Shaft Φ (inch)	2.36	1.18	2.17
Maximum thread diameter (inch)			

Flange structure and valve connection size (inch)



FA14 flange B1 interface

FA14 flange B3 interface

FA14 flange mounted A2 output shaft



Specifications

Voltage supply	3-phase 4-wire: $\leq 500V \pm 10\%$, 50/60Hz $\pm 5\%$, 550/660VAC are optional 1-phase 3-wire: 110/220V $\pm 10\%$, 50/60Hz $\pm 5\%$
Duty mode	S4 - 25% - 1200 c/h
Motor control	Variable frequency control technology
Add. control supply	24V.DC, max 40mA, 24V.DC (18~33V), max 500mA, with short-circuit protection function
Digital output switch capacity	30VDC.5A or 220/110VAC 5A 250VAC 8A (optional)
Input Signal	1) 4~20mA; 250 Ω inherent resistance 2) Profibus-DP, MODBUS, Hart, Ethernet, Foundation Fieldbus (all optional) 3) 120VAC (optional)
Output Signal	1) 4~20 mA; load impedance $\leq 750\Omega$; temperature effect $\leq 0.1\%/10K$ 2) Profibus-DP, MODBUS, Hart, Ethernet, Foundation Fieldbus (optional)
Strokes range	Minimum 1 circle for Multi-turn, maximum number of turns is unlimited
Torque tripping	40% ~ 100% adjustable, step 5%
Output speed	40% ~ 100% adjustable, step 5%
Accuracy	$\leq \pm 0.5\%$
Dead zone	1% (0.5 ~ 10% adjustable)
Intermediate position Setting	Standard
Enclosure protection	IP67 (IP68 optional)
Explosive protection	Exd II CT4
Safety Integrity level	SIL2&3
Ambient conditions	1) Temperature: Modulating duty, MME series, -25°C ~ +60°C Split type, MME series, -40°C ~ +85°C 2) Humidity: The Multitrac actuator can operate in up to 100% humidity 3) Air media: corrosive, flammable and explosive gas optional coating
Heater	Optional
Anticondensation	Anticondensation heater included
Coating	Double layer powder coating, C5-M (ISO12944 Marine Optional)
Color	RAL9005 for standard, available colors on request
CE standard  and others	1) EN 61000-6-4: 2007, EN 61000-6-2: 2005 2) EN 61000-3-2: 2006 +A1:2009+A2: 2009, EN 61000-3-3: 2008 3) EN 60204-1: 2006+A1: 2009 4) ATEX: CML 14ATEX1108
Installation direction	4 different orientations
Fatigue strength	0.75g sine wave within 5 ~ 200Hz or 2g sine wave within 5 ~ 150Hz
Cable connection	1*M32x1.5 for $\Phi 13 \sim \Phi 18$, 2*M25x1.5 for $\Phi 10 \sim \Phi 16$,
Cable size	Ontrac power cable cross-section area are: flexible cable $\leq 6mm^2$, non-flexible cable $\leq 4mm^2$; cable cross-section area of signal terminals is $\leq 2.5mm^2$.