

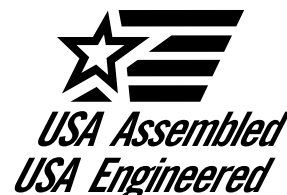


CAFE NITRO model shown / final appearance may vary

With engineering, manufacturing, assembly and programming all provided by Plast-O-Matic, CAFE actuators are available with a wide range of voltage and performance options, as well as mounting and connections for virtually any valve requiring torque up to 20 Nm.

Minimum quantities may apply, depending on level of customization.

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## CAFE ACTUATOR

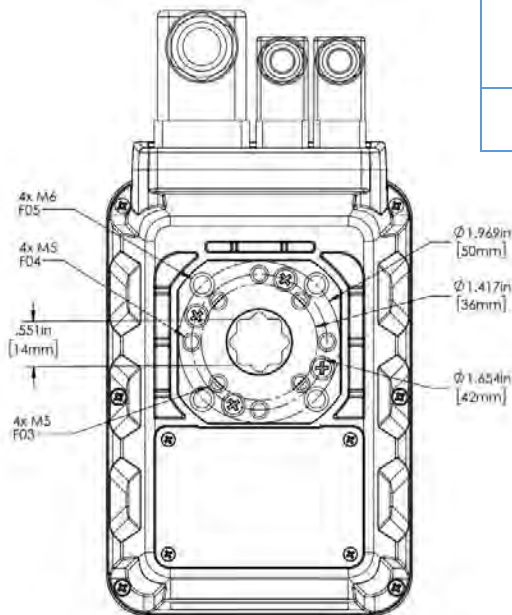
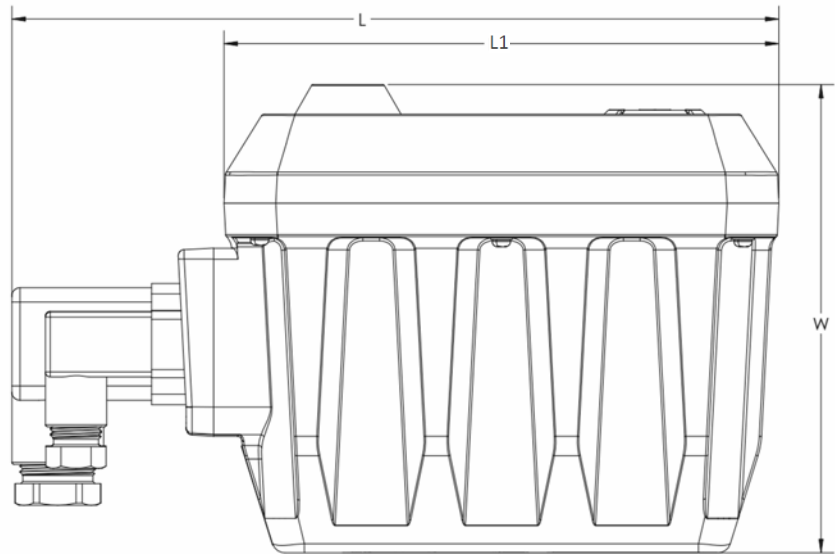
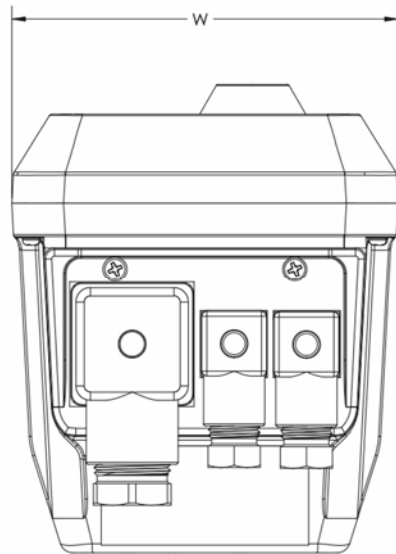
### STANDARD CAFE FEATURES

- Multi-Voltage 24-240V AC/DC, 50-60 Hz Input Power with auto-voltage sensing and resettable fuse
- LED status light to indicate operational status of actuator
- Multi-Mode Electronic over-torque protection against valve jam
- Brushless motor with ICP protection
- Thermostatic anti-condensation heater
- Remote position indicator via Programmable relays
- Barrel style visual position indicator
- Weatherproof anti-corrosive and UV protected glass filled polypropylene housing
- Easy mounting with ISO 5211
- All external electrical connections via DIN plugs
- Soft Reset via DIN plugs
- CE marked, IP67 ingress protection
- Plast-O-Matic engineered & assembled in USA

### CAFE NITRO FEATURES

- OLED screen
- Over-torque & over-temperature alarms
- (0-20, 4-20) mA or (0-10, 2-10) V DC proportional closed loop control options
- Differential input/output proportional closed loop control options
- Proportional Control Loop with over voltage and overcurrent protection
- Modbus RS485 proportional control option with 13 registers
- Fail-safe option w/battery backup
- Stand alone control option via asynchronous calendar
- Three different drive mode options: Auto, keypad, manual
- Alarm log option
- Run time diagnostic option
- Range of 90° working time from 1 - 30 seconds

### DIMENSIONS



Model	L		L1		W		H	
	IN	MM	IN	MM	IN	MM	IN	MM
Café	7.40	187.85	5.35	135.89	3.73	94.62	4.51	114.49

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### SPECIFICATIONS

Sizes	3/8"-2" Ball Valves	
Actuator	CAFE	CAFE NITRO
Voltage (AC (1ph) or DC)	24-240	24-240
Working Time 0-90° (No Load) ±10%	5 seconds	5 seconds preset 1-30 programmable
*Multi-voltage Maximum Run Torque (Nm/in./lbs.)	10 / 88.5	10 / 88.5
Maximum Break Torque (Nm / in./lbs.)	20 / 177	20 / 177
On/Off Duty Rating %	75	75
Modulating Duty Rating%	100	100
IP Rating—IEC 60529	IP67	IP67
Working Angle Standard	90°/180°	90°/180°
Temperature Range (°F)	-4° - 158°	-4° - 158°
Anti-Condensation Heater (W)	5	5
Input Power (@24VDC) max.	50 W	50 W
Current Full Load		
24VDC	0.8 A	0.8 A
24V/1ph	0.8 A	0.8 A
110V/1ph	0.8 A	0.8 A
240V/1ph	0.8 A	0.8 A
Weight (kg/lbs)	1.25kg / 2.75 lbs.	1.25kg / 2.75 lbs.
Drive	14mm Double Square	14mm Double Square

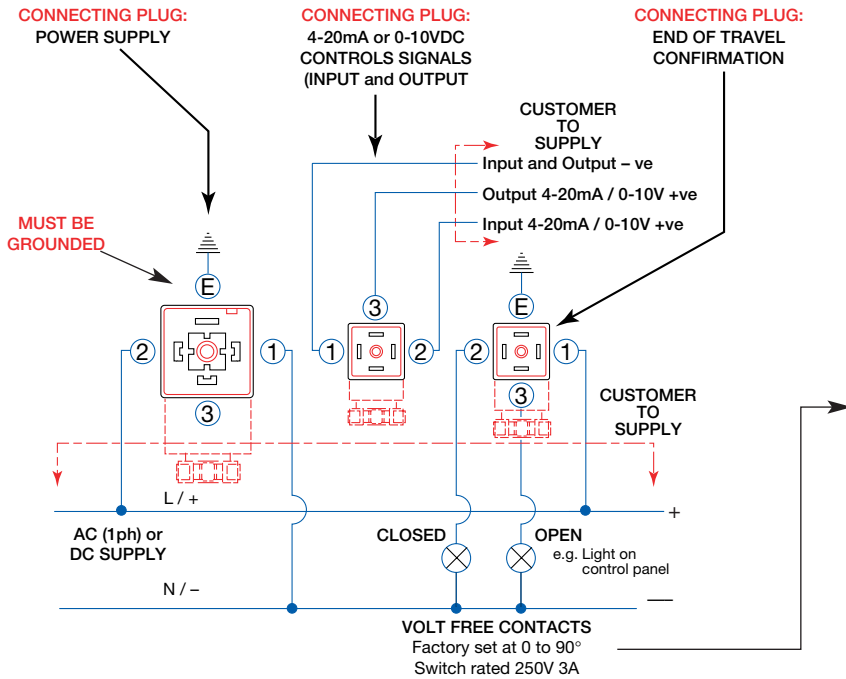
\*20 Nm/in./lbs. available with voltage specific motors with extended cycle times; consult factory

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### AC (1ph) or DC SUPPLY –

#### WIRING FOR MODULATING ACTUATORS



#### FUNCTION: MODULATING VERSION

- Power open, power close – Actuator movement controlled by input signal (4-20mA or 0-10VDC)
- Standard Operation:
  - 4mA or 0V = Actuator Closed, 20mA or 10V = Actuator Open (can be reversed)
- Standard Operation: Actuator closes on loss of control signal, stays put if loss of main power.
- Output signal provided as standard (in same format as supply signal)

**NOTE:** Wiring showing same supply as motor is only a suggestion, Read "Installation, Operation and Maintenance Instructions" before connecting.

**NOTE:** Fail-safe option is also available for modulating version.



Actuator power supply must be on a dedicated circuit and must be grounded.

#### WIRING ON/OFF FOR FAIL SAFE ACTUATORS

#### FUNCTION: ON/OFF VERSION

- Power open. power close
- Stays in place during power failure

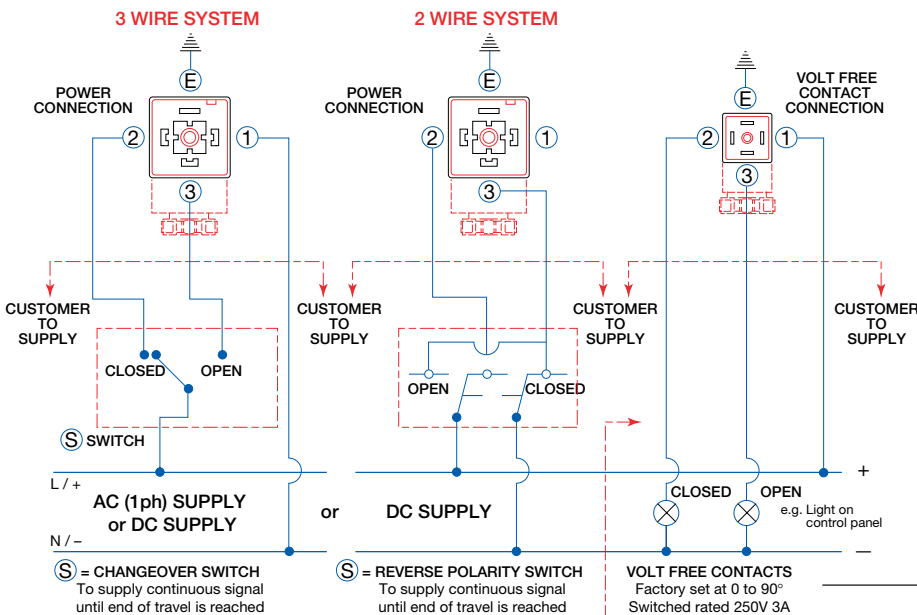
#### FUNCTION: FAIL-SAFE VERSION

- Power open, power close – Trickle charges battery in either open or closed position
- Actuator sent by battery power to preset fail safe position on power failure
- Actuator returns to pre-failure position on power resumption
- Fail-safe can be either NC (normally closed) or NO (normally open)

**NOTE:** Wiring showing same supply as motor is only a suggestion, Read "Installation, Operation and Maintenance Instructions" before connecting.



Volt free switches are set approximately 5° ahead of the final motor stop position. Do not use the signal from the volt free switches to cut the power to the motor, otherwise the actuator will not reach the full open or full closed position. The actuator is designed to have continuously energized power.



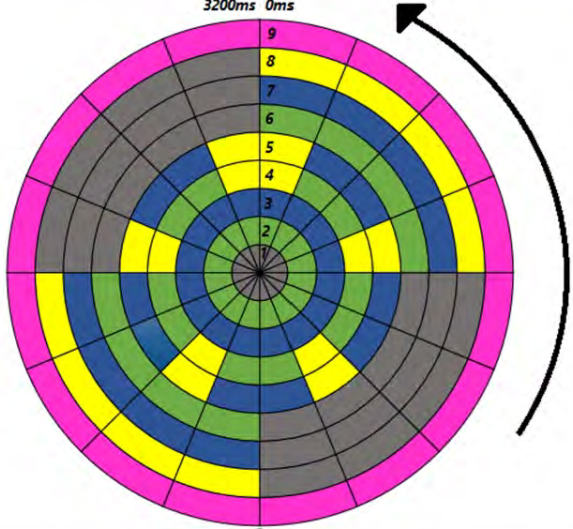
**ANTI-CONDENSATION HEATER**  
Operates only when power is on.  
Power can be left on permanently.

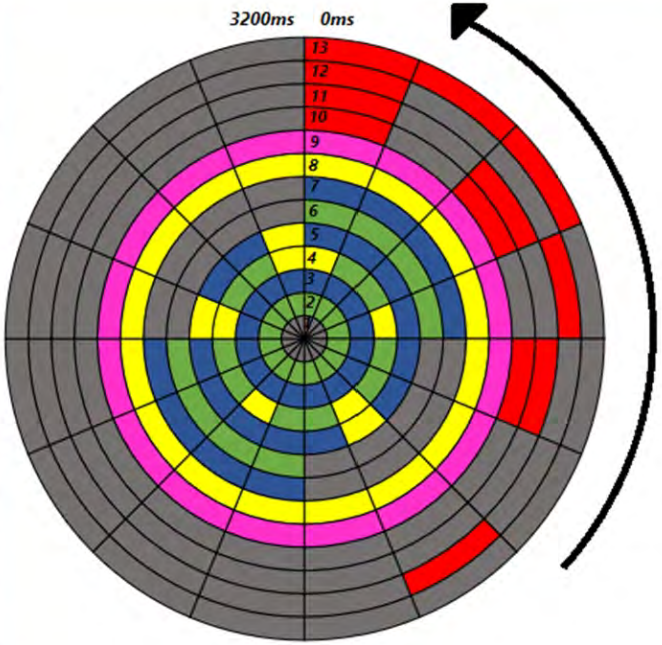


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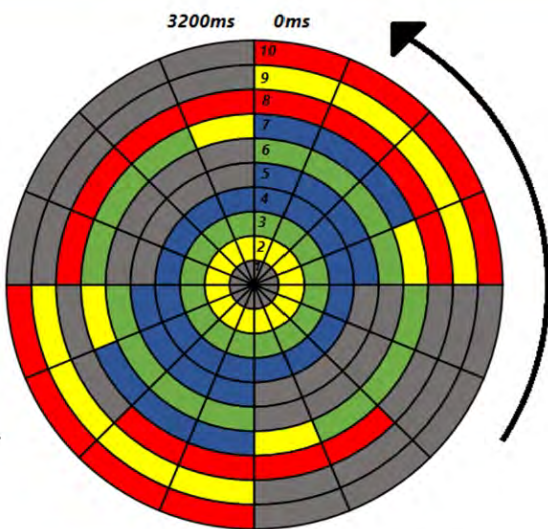
## LED DISPLAY

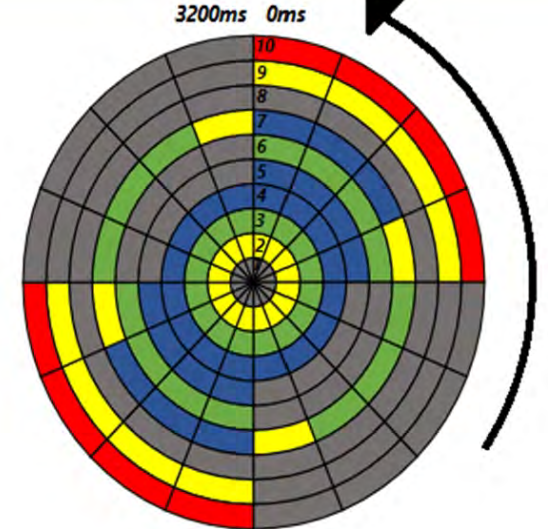
ON/OFF ACTUATOR	ACTUATOR OPERATIONAL STATUS (200 msec/block)
1. No power detected	
2. In position open	
3. In position close	
4. Opening	
5. Closing	
6. Torque limit engaged, moving from close to open	
7. Torque limit engaged, moving from open to close	
8. Actuator in MANUAL mode	
9. Multiple concurrent signals	

FAIL SAFE ACTUATOR	ACTUATOR OPERATIONAL STATUS
1.No power detected	
2.In position open	
3.In position close	
4.Opening	
5.Closing	
6.Torque limit engaged, moving from close to open	
7.Torque limit engaged, moving from open to close	
8.Actuator in MANUAL mode	
9.Multiple concurrent signals	
10.Actuator without power, working with the NO system, Max 3 min, led off	
11.Actuator without power, working with the NC system, Max 3 min, led off	
12.Battery protection. Danger, the battery needs recharging fail safe blocked	
13.Torque limit fail	

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## LED DISPLAY

MODULATING ACTUATOR	ACTUATOR OPERATIONAL STATUS
1.No power detected	
2.Actuation feedback complete	
3.Opening	
4.Closing	
5.Auto adjusting configuration/ reset	
6.Torque limit engaged, moving from close to open	
7.Torque limit engaged, moving from open to close	
8.Unrecognized modulation signal. Actuator stopped	
9.Actuator in MANUAL mode	
10.Waiting for modulation signal	

MODBUS ACTUATOR	ACTUATOR OPERATIONAL STATUS
1.No power detected	
2.Actuation feedback complete	
3.Opening	
4.Closing	
5.Auto adjusting configuration/ reset	
6.Torque limit engaged, moving from close to open	
7.Torque limit engaged, moving from open to close	
8.Unrecognized modulation signal. Actuator stopped (N/A)	
9.Actuator in MANUAL mode	
10.Waiting for modulation signal	

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## OLED DISPLAY

### FEATURES:

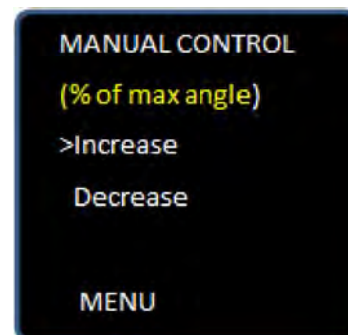
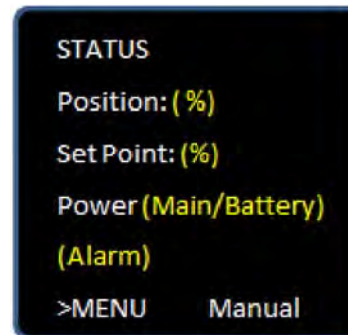
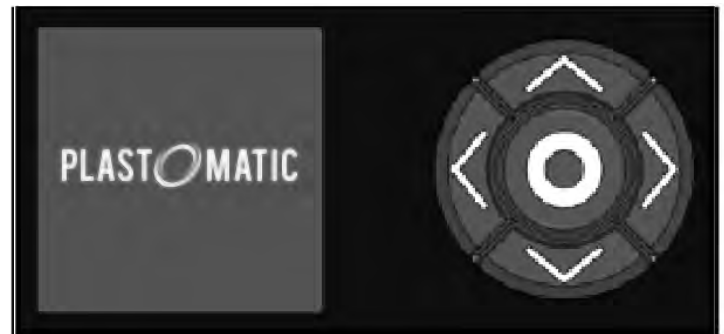
Each CAFE NITRO Actuator comes equipped with an OLED display and a full directional keypad, allowing the user to change actuator parameters and to manually control the actuator. Each specific model has its own software relating to its functionality distributed in four universal sub-menus. Alarms, Control, Language and Maintenance. Please refer to your model specific Menu Manual for more information.

### STANDARD PARAMETERS INCLUDE:

- Reset Alarms
- Speed
- Dead Band
- Anticondensation
- Language English/Spanish
- Overload
- Drive
- Factory Settings
- Operation
- Power Loss
- Hardware Monitor
- Password
- Calibration
- Hysteresis
- Relay Output

### MODEL SPECIFIC OPTIONS INCLUDE:

- Communication Loss
- Analog OUT
- Network
- Third Angle
- Analog IN
- Compensation
- Calendar



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