

# MA 02 A Series - Adv | Open/Close/Jog

Overview, Specifications, Dimensional Data, Materials of Construction, Wiring Diagrams

Max Electric™

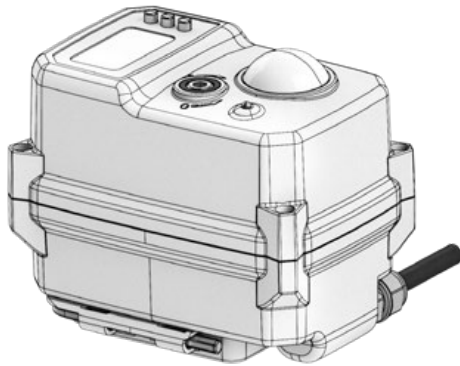
Max-Air  
TECHNOLOGY

Rev: 12/7/23



Website

## MA 02 A Series - Aluminum Advanced - Open/Close/Jog Control



## Overview

The MA 02 Advanced Series are quarter-turn electric industrial service actuators delivering up to 177"lbs torque in 12vdc, 24vac/vdc, or 92~265vac models, and available in 2 position (Open/Close), Floating (Open/Close/Jog) or Modulating (4-20mA default or 2-10vdc) control schemes. The Advanced model eliminates the need to remove the cover to set travel stops, which are soft-set through the OLED Menu function. Other parameters are also accessible thru the same Menu program. (2) Form A (NO) auxiliary switches and an internal anti-condensate heater are standard. Key features include:

- 24 volt models operate on AC or DC power supplies.
- 120vac & 230vac (autoswitching) models operate on 50 or 60Hz supplies.
- 3D Raised Position indicator
- 3m pre-wired field interface cable included
- A 4mm Manual override socket is top-mounted for ease of use.
- M10 nickel plated brass cable gland (x1)
- MAR02R available with high-speed function
- MAR02R available with electronic fail-safe function

## Specifications

|        |                                        | MAR02R-A24AD-AASF5             | MAR02S / MAS02S-A24AD-A7SNF |
|--------|----------------------------------------|--------------------------------|-----------------------------|
| Supply | Torque Output (in-lb / Nm)             | 177"lb / 20Nm                  | 177"lb / 20Nm               |
| 24V    | Power Consumption (Max/Run/Hold)       | 36W / 9.6W / 0.6W              | 15W / 9.6W / 0.6W           |
|        | Peak Current (@ Rated Voltage)         | 1.5A, 5ms @ 24VDC              | 0.625A, 5ms @ 24VDC         |
|        | Fuse Rating                            | 5A                             | 5A                          |
|        | Speed (90°) DC-60Hz/50Hz, seconds      | 10s Mains; 15s EFS             | 10s                         |
|        | Duty Cycle (IEC60034)                  | S3-85% @ ≤85% rated torque     | S3-85% @ ≤85% rated torque  |
|        | Motor Power                            | 36W                            | 15W                         |
|        | Motor Protection, Temp / Class         | 155°C / Class F                | 155°C / Class F             |
|        | Fail-Safe (EFS)                        | SuperCap                       | none                        |
|        | Fail Direction on loss of power        | CW - Default, CCW Programmable | N/A                         |
|        | 2 Position Control - Max starts / hour | 50                             | 300                         |
|        | Product Weight (lbs / kg)              | 1.36lbs / 0.62 kg              | 1.36lbs / 0.62 kg           |

|               |                                        | MAR02R-A9265-AASF5             | MAR02S / MAS02S-A9265-A7SNF |
|---------------|----------------------------------------|--------------------------------|-----------------------------|
| Supply        | Torque Output (in-lb / Nm)             | 177"lb / 20Nm                  | 177"lb / 20Nm               |
| 95~<br>265VAC | Power Consumption (Max/Run/Hold)       | 36W / 10W / 1.2W               | 15W / 10W / 1.2W            |
|               | Peak Current (@ Rated Voltage)         | 0.16A, 5ms @ 220VAC            | 0.068A, 5ms @ 220VAC        |
|               | Fuse Rating                            | 5A                             | 5A                          |
|               | Speed (90°) DC-60Hz/50Hz, seconds      | 10s Mains; 15s EFS             | 10s                         |
|               | Duty Cycle (IEC60034)                  | S3-85% @ ≤85% rated torque     | S3-85% @ ≤85% rated torque  |
|               | Motor Power                            | 36W                            | 15W                         |
|               | Motor Protection, Temp / Class         | 155°C / Class F                | 155°C / Class F             |
|               | Fail-Safe (EFS)                        | SuperCap                       | none                        |
|               | Fail Direction on loss of power        | CW - Default, CCW Programmable | N/A                         |
|               | 2 Position Control - Max starts / hour | 50                             | 300                         |
|               | Product Weight (lbs / kg)              | 1.36lbs / 0.62 kg              | 1.36lbs / 0.62 kg           |

|     |                                  |                                                         |
|-----|----------------------------------|---------------------------------------------------------|
| ALL | Control                          | Open/Close, Open/Close/Jog                              |
|     | Electrical Entry                 | M10 nickel-plated brass cable gland (x1)                |
|     | Auxiliary Switch - Type          | (2) Soft, Form A                                        |
|     | Auxiliary Switch - End of Travel | (2) Form A Volt-Free, Rated 0.1A @ 250vac, 0.5A @ 30VDC |
|     | End-of-Travel Adjustment         | Programmable thru OLED Menu                             |
|     | Manual Override                  | 4mm hex key, stored in lower housing clip               |
|     | De-clutch mechanism              | None required                                           |
|     | Environmental Rating             | IP67 Indoor / Outdoor (requires sun/rain shield)        |
|     | Ambient Operating Range          | 5°F to +140°F / -15°C to +60°C                          |
|     | Humidity Range                   | 0-95% RH                                                |
|     | Altitude Limit                   | 9850 ft / 3000 m                                        |

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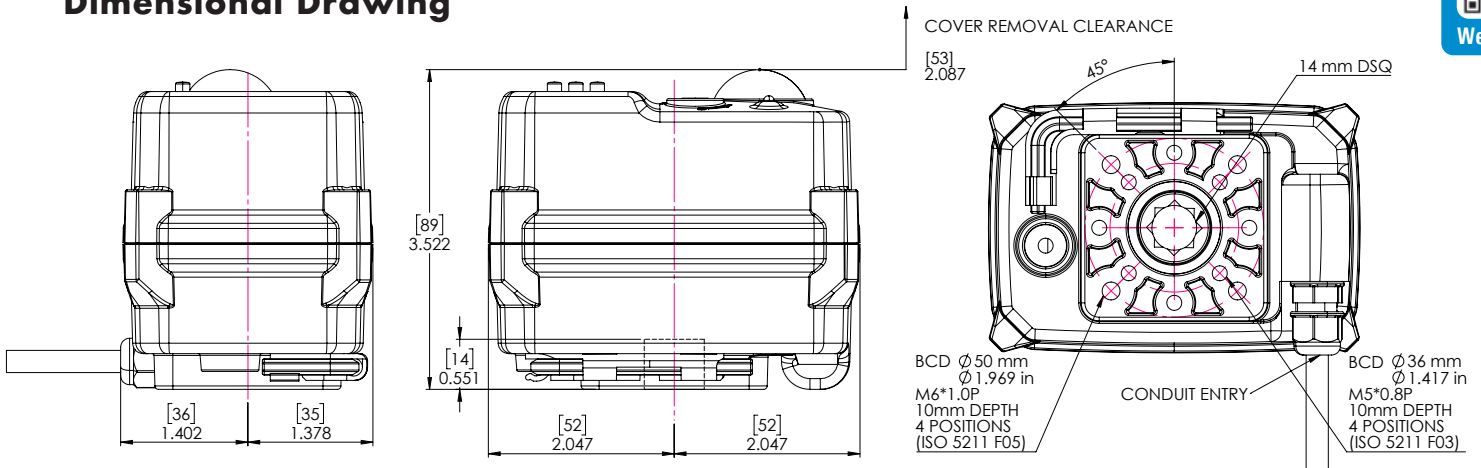
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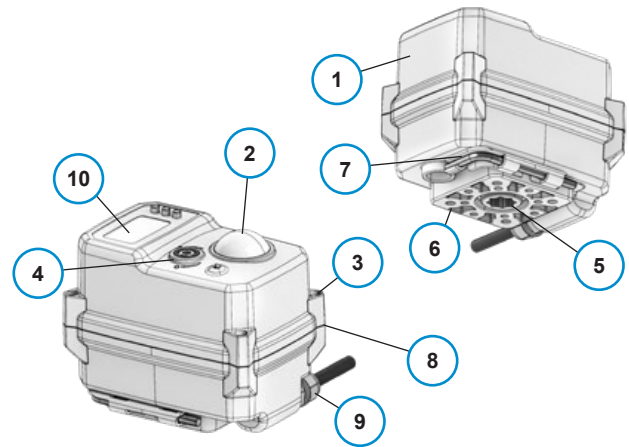
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## Dimensional Drawing



## Materials of Construction

| #  | DESCRIPTION            | MATERIALS           |
|----|------------------------|---------------------|
| 1  | Actuator               | Cast Aluminum       |
| 2  | Indicator              | Transparent AS      |
| 3  | Cover Screw (x4)       | A304                |
| 4  | Override Port          | A304                |
| 5  | Output Socket          | NP Hardened Steel   |
| 6  | ISO Mount Profiles     | Cast Aluminum       |
| 7  | 4mm Hex Key            | Tool Steel          |
| 8  | Cover Seal             | NBR                 |
| 9  | Waterproof Cable Gland | Nickel Plated Brass |
| 10 | Program Console        | OLED Display        |

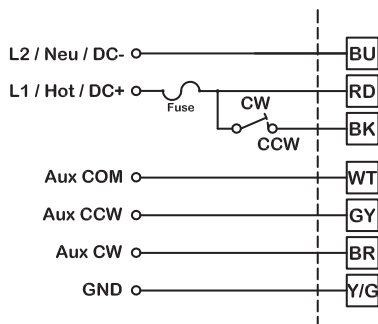


## Wiring Diagrams

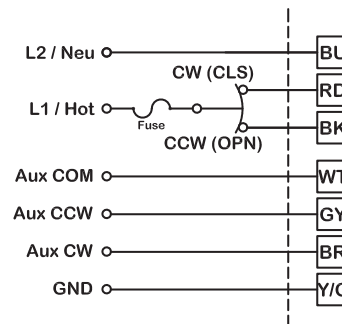
Typical wiring diagram shown.

Max-Air reserves the right to change specifications through a continuous-improvement program.

Contact Max-Air for product specific wiring diagrams prior to engineering or installation efforts.



**MAR Fail-Safe / Non Fail-Safe**  
**VAC/VDC Open Closed**



**MAS Non Fail-Safe**  
**VAC Open Closed Jog**