

REO Controller I/O Cheat Sheet

This is a quick reference guide for connecting inputs and outputs to the REO brand of controllers. In most cases the controller face plate must be removed in order to access the internal terminal strip. See the associated manual for additional information.

REO MFS Series (268 3 Amp, 268, 268XL, and 268XXL) IP54 Enclosed

- Internal Status Relay (Dry contact)
 - Terminal # 22 & 23 (Normally Open)
 - Terminal # 21 & 22 (Normally Closed)
- Enable Input (12 – 24 V DC) – See Code 003 for inverting
 - Terminal # 5 - Positive (+)
 - Terminal # 4 - Negative (-)
- PNP – Sensor (Track Control)
 - An external cable can be connected to X4
 - Pin 1: +24V DC, Pin 2: Empty, Pin 3: Ground, Pin 4: Input
 - Internal Connection
 - Terminal # 1 – Ground
 - Terminal # 2 – Input
 - Terminal # 3 - +24V DC
- External Set Point – Requires input changes on Code 003
 - Terminal # 7 – Negative (-) [0 to 10V or 0(4) to 20 mA/Potentiometer]
 - Terminal # 8 – Positive (+) [0 to 10V or 0(4) to 20 mA/Potentiometer]
 - Note: Potentiometer 10 K Ω , Note: R=500 ohm external
- Air Valve Output (24V DC, 150 mA) – 12 and 16 Amp only
 - Terminal # 35: Ground, Terminal # 36: Air Valve +24V, Terminal # 37: Time out +24V
- Inhibit Codes
 - Code 117 – Hides Menus
 - Setting = 1 (Menus cannot be accessed, except for feed rate)
 - Setting = 0 (All menus can be accessed)
 - Code 137 – Lock Feed Rate
 - Setting = 0 (Feed rate can be adjusted)
 - Setting = 1 (Feed rate cannot be adjusted)
- Maintenance Check – Code 040
 - It is advised to check and note the First setting on Code 040 for maintenance purposes. This setting is the actual coil current in percentage of the nominal current.
 - Example: Display = 50.0 (on a 12 Amp nominal controller, the system is utilizing 6 Amps)
 - If this setting is noted and compared to future settings, any significant change (greater than 10%) would indicate a potential issue with the feed system.

REO MTS Series (440, 441, and 442)

- Status Relay
 - An external cable can be connected to X5
 - Pin 1: Status Mains On (+24V)
 - Pin 2: Status Channel 2 (+24V)
 - Pin 3: Ground
 - Pin 4: Status Channel 1 (+24V)
 - Pin 5: Sensor time out (+24V)
 - MTS 441 (Internal Dry Contact)
 - Terminal # 22 & 23 (Normally Open)
 - Terminal # 21 & 22 (Normally Closed)
- Enable Input (12 – 24 V DC) – See Code 006 & 007 for inverting
 - An external cable can be connected to X6
 - Pin 1: Internal +24V Output
 - Pin 2: Enable Channel 2 (+24V)
 - Pin 3: Ground
 - Pin 4: Enable Channel 1 (+24V)
- PNP – Sensor (Track Control)
 - An external cable can be attached to X4.1 (MTS 441) or X4.1 & X4.2 (MTS 440/442)
 - Pin 1: +24V Output
 - Pin 2: Empty
 - Pin 3: Ground
 - Pin 4: Input
- External Set Point (MTS 441 ONLY) – Requires input changes on Code 003
 - Terminal # 7 – Negative (-) [0 to 10V or 0(4) to 20 mA/Potentiometer]
 - Terminal # 8 – Positive (+) [0 to 10V or 0(4) to 20 mA/Potentiometer]
 - Note: Potentiometer 10 K Ω
 - Note: R=500 ohm external
- Air Valve Output (24V DC, 100 mA)
 - MTS 441
 - Pin 35: Ground, Pin 36: Air Valve +24V, Pin 37: Time out +24V
 - MTS 440/442
 - Pin 21: Air Valve +24V, Pin 22: Ground
- Inhibit Codes
 - Code 117 – Hides Menus
 - Setting = 1 (Menus cannot be accessed, except for feed rate)
 - Setting = 0 (All menus can be accessed)