

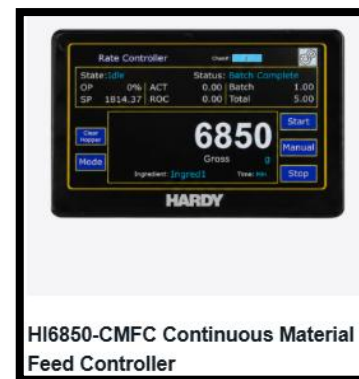
HI6850-CMFC Rate Controller Quick Reference V1.2

- **Default Webpage IP Address:**

- 192.168.0.100

- **Basic Operation:**

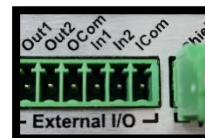
- **Initial State** – The rate controller operates by being given a feed rate value via PLC or the display. (e.g. lbs/min, kg/hr) Once feeding, the unit displays dropping gross weight and an increasing Total fed weight.
 - The unit must be calibrated for weight and rate before use.
 - During a loss in weight feed, material must be added after the weight calibration to show a positive weight available to feed.
 - Input of a manual OP (Output Percent) or the Clear Hopper button are often used for testing or removing product from a vessel.
 - The unit can continuously feed or feed in batches.
 - Pressing STOP once pauses the output and preserves the existing batch value. Pressing STOP twice aborts the process and the batch value clears when restarted.
 - Low Rate or High Rate Alarms – The feed rates are lower or higher than expected in reference to the output of the instrument. (Often caused by a clog or a change in product density.)
 - Rate Exception – Used to stabilize the feed rate during a substantial weight change event.
 - Refilling – The unit will trigger a relay at specific weights. In “learn” mode the unit will compensate feed rate for varying head pressures based on historical feeding.
- **Weight Calibration** – Calibrate the scale to 0 via C2 calibration or with traditional Low/High weights. Once calibrated, the scale will need product added to start a rate calibration.
- **Rate Calibration** – A rate calibration begins calibrating the analog output % to a rate of weight being fed from the equipment. The amount of prime, pause and feed time varies with each application.
 - Note: Starting the calibration (and while feeding) the analog output changes to adjust the speed of the feeding equipment.
 - OP 0% = 4mA
 - OP 100%=20mA.
- **Ingredients** – Under the Rate Control Setup, each ingredient has a set of calibrations and feed rates.
 - Possible feed rates are shown on the calibration table and are populated after running the equipment while doing a rate calibration.



- **CMFC DEFAULT I/O:**

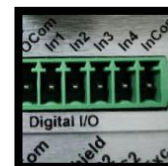
- **“External I/O” Adjacent To The Scale Input Connector:**

- **Input 1** – Start the feed process.
 - **Input 2** – Stop (Pauses the process upon first trigger and retains the batch amount ready for a restart of the process. Triggering a 2nd time aborts the process and returns to idle.)



- **“Digital I/O” Above The Scale Input Connector:**

- **Input 1** – Abort (Stops the process and returns to idle.)
 - **Input 2** – Triggers a manual refill.
 - **Input 3** – Clears the total.



- **Analog Output 1 (Above The Scale Input Connector):**

- **Output 1:** Output of 4-20mA scaled to the OP (Output Percent).
 - 0 to 100% = 4-20mA.



- **Relays Card (When GPRC Relay Option is Installed):**

- **Relay 1** – Closed when the feeder is running. Including during the automated shutoff state.
 - **Relay 2** – Closed when in the Shutoff state. Note: Shutoff engages the adjustable shutoff output%.
 - **Relay 3** – Closed during the rate exception process.
 - **Relay 4** – Closed during an alarm. (e.g. High or low feed rates)
 - **Relay 5** – Closes upon a refill event.

