



**Model MP-104**  
Refrigeration Control System

- Compressor control
- Agitation control
- Fail-safe alarm

MP-104 is a controller for use with refrigerator systems. It was developed especially for the temperature control of milk.

MP-104 provides an output signal to a refrigerator compressor to maintain constant temperature within a 2-4 degree F window over the range 35 to 48° F. A second output signal operates an agitator for short periods of time, typically 3 minutes each 18 minutes or 10 minutes each 30 minutes.

In addition to automatic temperature and agitation control, a pre-set agitation cycle can be selected of 30-60 minutes duration, with or without cooling. Also a single agitation cycle, without cooling of 3, 5, 10 or 60 minutes is available.

Proper functioning of the controller is continuously monitored and displayed. An alarm sounds in the event of malfunction. A display window indicates the process temperature.

Similar specialized control systems can be designed and manufactured to customer specifications.

SPECIFICATIONS	MP-104
Range:	30-185° F
Front panel:	2 digit in 1 degree increments, 0.5in LED displays process value, LED indication of pre-start and agitate modes
Stability:	0.05° C with 1° C ambient change or 0.01% of span with 1% line voltage change
Accuracy:	0.25% FS
Control type:	On/off with programmed differential
Control outputs:	Cooling 20mA @ 24VDC, Alarm triac 0.5A @ 230VAC, Agitator triac 0.5A @ 230VAC
Sensor:	NTC thermistor with software controlled linearization
Operating ambient:	0-55° C, 0-90% RH
Power:	230VAC 50/60Hz
Size:	PCB assembly 5.25 x 5.25 x 2.56in
Alarms:	High/low temperature

TO ORDER

Model #	Power	Range	Sensor
MP-104-1REV-1B	230VAC	30-185° F	NTC thermistor 223-40162-01

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