

Micro Thermo Technologies

MT-MVC



Customer Value

Micro Thermo's Modulating Valve Controller (MT-MVC) is designed to control the Electronic Expansion Valve (EEV). Valves supported are: Sporlan SEI, SER and SEH series, as well as a limited number of other valves.

The MT-MVC offers multiple control capabilities for the EEV. It can control the discharge air temperature of the refrigerated case by maintaining the superheat inside low and high limits or it can act as a simple superheat controller.

The Modulating Valve Controller is easy to install in a refrigerated case and is much more accurate than a conventional Thermostatic Expansion Valve (TEV). Moreover, the MT-MVC will modulate the EEV over a wide range of changes in pressure drop and loads.

The MT-MVC provides you with the ability to control a dual temp case (low temp and medium temp) without additional mechanical equipment. The controller automatically readjusts itself based on the activation of a dual temp virtual switch and then positions the valve opening accordingly using the new settings.

MT-MVC



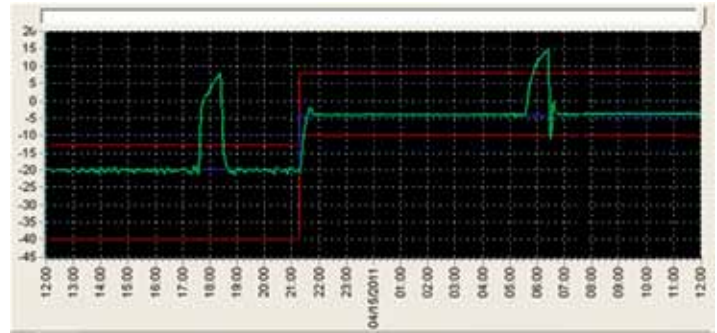
Using state of the art technology and advanced algorithms, the MT-MVC is more than just an electronic expansion valve controller. Here are some of the special features included in the controller:

- 3 sets of temperature alarms, including Cumulative Alarm for Food Safety based on HACCP standards
- Uses a predictive information model to optimize control, improving overall refrigeration performance for greater energy savings
- The MT-MVC uses a configurable Windows® based interface
- Smart fan control
- Superheat control performance monitoring and alarms
- Built-in tools for refrigeration contractors to ease start-up (vacuum mode)
- Shows valve position at all times
- Door switch monitoring for walk-ins
- Controls CO₂ and all conventional synthetic refrigerant systems



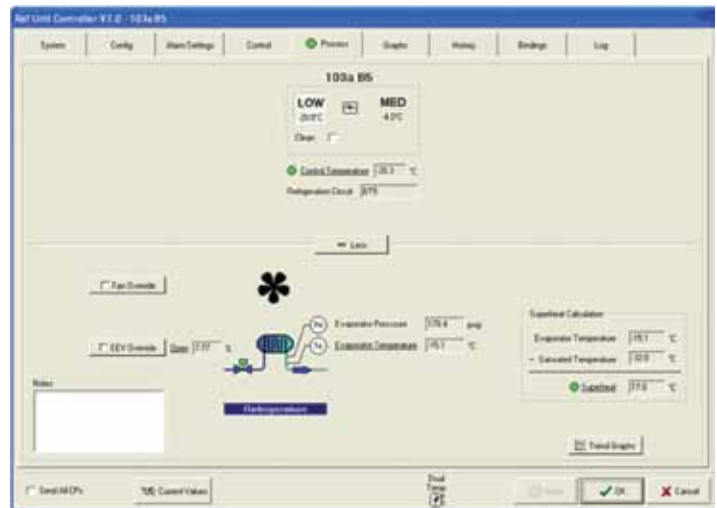
ENGINEERING YOUR SUCCESS.

Specifications – MT-MVC	
Applications	EEV Control
Temp. Sensor Inputs	3 Inputs
Pressure Sensor Inputs	1 Input
Digital Inputs	1 Dry Contact
Fan Relay Outputs	1 SPDT 5A/240 VAC Fuse Protected
Digital Outputs	Drives 12-volt Bipolar stepping motors
Local Status/Switching	Installs valves in stand-alone mode and opens them. Local interface shows the valves presence and activity. MT Alliance Plug-In is used to set up the controller.
Mounting	SnapTrak Panel, Wall Mounting or DIN Rail
Electrical	120-240 VAC Transformer 1A Fuse Protected (50Hz, 60Hz)
Environmental	Operating and Storage: -40 – 168°F (-40 – 75°C) 5-95% RH, noncondensing



Discharge air temperature of a dual temp case controlled by the MT-MVC. Note the response time when the case is passing from low temp to medium temp operation with a minimum undershoot of the air temperature.

MT-MVC



MT-MVC Windows® based interface provides easy set-up.

Supermarket Controls Solutions...Simply Powerful

Specifications subject to change without notice
MT Alliance™ is a trademark of Parker Hannifin Corporation
Windows® is a registered trademark of Microsoft Corporation

