

3403 Micristar replacement controller

3403: *Multi-Loop Process Controller, Micristar replacement*



Overview

The *Micristar* controller has been a mainstay of the industry for nearly 20 years.

Users have invested much time into creating and maintaining recipes and configurations for that controller. The 3403 controllers from MDE provide complete recipe and communications compatibility with the *Micristar* while providing much more capability at a lower price.

When an existing *Micristar* user needs to replace their *Micristar* controller or add more control or data monitoring capability, the 3403 controllers can be used as an enhanced upgrade to the *Micristar* as a very cost competitive solution.

The communications and recipe compatibility between *Micristar* and the 3403 controller offers *Micristar* users a very flexible and cost-effective upgrade to their *Micristar* control systems. Users can run all their existing *Micristar* recipes on either controller without any recipe changes whatsoever.

The communications compatibility between *Micristar* controller and the 3403 controllers means that both controllers can be networked into the MDE **SUPERVIEW** software package simultaneously.

The **SUPERVIEW** software package greatly enhances an existing *Micristar* system by providing recipe creation, editing, and storage. In addition, **SUPERVIEW** provides existing *Micristar* systems extensive real-time data logging and analysis, graphical recipe viewing and real-time graphs of process operation.

Features and Benefits

Use Existing Micristar Recipes with the 3403:

- No time consuming changes to recipes you know work.
- Use **SUPERVIEW** to create, edit, store and maintain all your existing recipes.
- See your existing recipes graphically and overlay real-time data plots.

3403 controllers are communications compatible with Micristars:

- Use your existing customized *Micristar* software with the 3403.
- Use your existing communications hardware for both *Micristar* and 3403.

3403 controllers have more control loops than Micristar:

- 4 loops or more of control in 3403 adds more capability and decreases costs for an existing system.
- Replace 2 or more *Micristars* with a single 3403 and increase system reliability at a reduced cost.

3400 series controllers have more I/O than Micristar:

- Add 3403 data monitoring/logging to an existing *Micristar* system using **SUPERVIEW** as setup and supervisory system.
- Add independent alarming to your existing *Micristar* system that can be programmed into your recipes. Operators don't need to learn anything new.
- Up to 64 Digital I/O points s more control and monitoring capabilities.
- Up to 18 Analog Outputs can handle much more than *Micristar*.

3403 controllers have more accurate I/O than Micristar:

- 16 bit input resolution allows you to control with far more accuracy.
- 16 bit outputs provides for improved control or data retransmissions.



Integrate Micristars and 3403 controllers with SUPERVIEW:

- A single PC software package keeps things simple for Operators with simple maintenance and enhanced reliability.
- Create, Edit, Maintain and Archive all your existing *Micristar* Recipes easily with **SUPERVIEW**.
- Log data from a 3403 and *Micristar* into a single, Excel compatible file, which simplifies the data collection task for the process.

Upgrade your control systems at your own rate

- Add 3403 controllers to your existing controller network when you need the 3403's enhanced capabilities.
- Replace *Micristars* with 3403's when needed without rewriting recipes or changing your controller communication network.
- The 3403 and *Micristar* can co-exist well into the future.

3400 series Micristar replacement

	 Micristar	 3403
Features		
<i>SUPERVIEW For Windows</i>		
<i>Real-time graphs of Data and Recipe</i>	yes	yes
Recipe Creation and Editing w/SuperView	yes	yes
Start/Stop Recipes and Data Logging	yes	yes
Recipe Management	yes	yes
Network Multiple Controllers simultaneously	yes	yes
Mix 3400 and Micristar simultaneously	yes	yes
<i>Control Loops</i>		
Number of Control Loops	2	up to 24
Cascade Control	no	yes
PV/Deviation Alarms	yes	yes
Calculated PV	no	yes
PID and Alarms Programmable via Recipe	no	yes
Remote Analog Input Setpoint	yes	yes
<i>Setpoint Programmer</i>		
Number of Setpoint Profiles	2	up to 16
Number of Segments	50	up to 500
User Customizable Recipe Fields	0	32
<i>High Speed Frequency I/O</i>		
Frequency Inputs,Pulse Counting,PWM outputs	none	up to 6
<i>Logic and Math Functions</i>		
Logic and Math functions (AND,OR,NOT,etc)	no	yes
User customizable functions	no	yes
<i>Analog Inputs</i>		
Number of Analog Inputs	2	up to 30
16 bit Input Resolution (0.0015%)	no	yes
Universal Inputs (T/C,RTD,voltage,current)	no	yes
Monitoring inputs	no	yes
Sensor switchover	no	yes
Redundant loop inputs	no	yes
<i>Analog Outputs</i>		
Number of analog outputs max	4	18
10 bit Analog Output Resolution (0.1%)	4	none
12 bit Analog Output Resolution (0.025%)	none	12
16 bit Analog Output Resolution (0.0015%)	none	6
<i>Digital Outputs</i>		
Number of digital outputs max	12	38
Burst Mode Outputs (Distributed Zero Cross)	none	32
Time Proportioned Outputs	2	up to 32
Relay drives	up to 16	38
<i>Digital Inputs</i>		
Number of digital inputs max	12	38
Pulse Counting Digital Inputs	none	32
<i>Communications</i>		
EIA-485	no	yes
EIA-232/422	yes	yes
Ethernet TCP/IP	no	yes
Built in Web Server	no	yes
IEEE-488/GPIB	yes	external converter
<i>User Interfaces</i>		
Built in LED display w/keypad	yes	no
PDA	no	no
Touchscreen LCD	no	coming soon
<i>Size</i>		
Enclosure size	6" x 6" x 14"	6" x 6" x 9.5"