VersaMax™ Micro
Scalable Micro PLCs

Today's manufacturing environment faces the critical need for shorter production runs, quicker changeovers, and just-in-time manufacturing. Machines are no longer dedicated to a single product and long production runs. VersaMax Micro helps you address this challenge as a scalable solution with precise and powerful control in a compact design. With the flexibility to enhance machine performance, availability, and profitability, the modular VersaMax Micro offers the features to match your application needs.
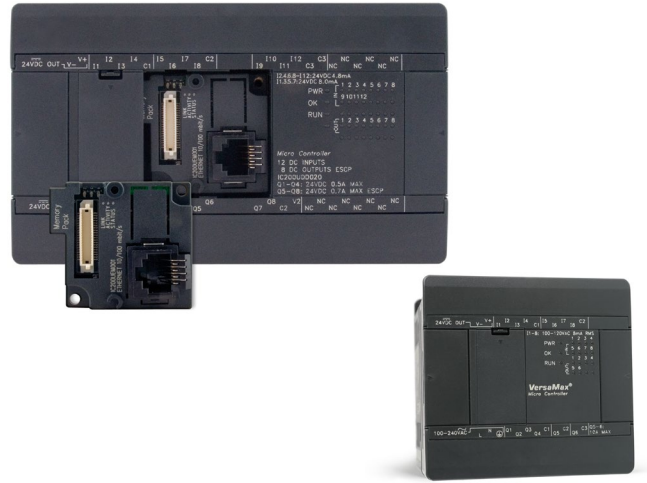
Application Flexibility and Scalability

VersaMax Micro PLCs provide the scalability and flexibility to cover a broad range of applications. For applications that require more I/O, up to four modules can be used to expand the series of controllers. For smaller machines, units can be used as a standalone controller with integrated I/O functions. With I/O expansion modules and support of a portable program FLASH memory module, the VersaMax Micro PLCs provide the flexibility to configure a solution to your exact requirements and budget.

Big Features in a Compact Package

The small footprint VersaMax Micro PLC offers the flexibility of modular design and a variety of built-in features, including up to 64 I/O points (expandable to 176 I/O points), fast cycle times, a robust instruction set and extensive memory that multiplies your programming options.

A Variety of Communications Options

All units have a RS-232 port that can be used for SNP slave, Modbus RTU or serial I/O commands, and select units have an RS-485 port that adds SNP master and Modbus master commands. The Micro 20, Micro 40 and Micro 64 also have a second option port that supports either RS-232, RS-485 or USB communications module. The VersaMax Micro PLCs are easily networked to Ethernet with the powerful VersaMax SE (Serial to Ethernet module).

Performance to Improve Productivity

The VersaMax Micro family is designed to provide the power and performance of customized solutions with the convenience and economy of off-the-shelf technology. VersaMax Micro PLCs have two channels of high-speed control, two independent 65kHz pulse and direction outputs, and user configurable inputs and outputs to effectively increase machine performance. With VersaMax Micro PLCs you can reduce costs and save time on machine configurations without compromising the ability to customize the features that are right for your application.

Simplified Programming for PLCs

With PAC Machine Edition software, programming your VersaMax Micro PLCs is an intuitive process. Mix Relay Ladder Diagram and Instruction List programming within an application. Develop and save custom view tables. View PLC and I/O system fault tables on demand. PAC Machine Edition deploys HMI, motion, and multi-target control in an integrated development environment. This provides a common user interface, drag-and-drop editing, and a rich set of development tools. The Micro 20, Micro 40 and Micro 64 support a portable program FLASH Memory Module that provides a simple cost effective way of upgrading field controllers.

EMERSON

Feature	Benefit
Single Toolchain	■ Use PAC Machine Edition to program micro (VersaMax), compact (RSTi-EP), and large (RX3i) PLCs
Flexible Communications from Serial to Ethernet	■ Modbus Master, Modbus Slave and Report by exception ■ Modem and Ethernet SRTP or Modbus TCP (Server) option
Abundance of Data Storage Capability	■ Up to 32K words of data storage
Powerful Instruction Set	■ Floating point math and PID for process control ■ Write and Read data to internal FLASH

Specifications

	Micro 14	Micro 23	Micro 28	Micro 20	Micro 40	Micro 64
Built-in Discrete I/O	8 in/6 out	13 in/10 out	16 in/12 out	12 in/8 out	24 in/16 out	40 in/24 out
Built-in Analog I/O	None	2 in/1 out	None	None	None	None
I/O Expansion Units	Up to 4	Up to 4	Up to 4	Up to 4	Up to 4	Up to 4
Logic Memory (Words)	9K	9K	9K	24K	24K	24K
Data Storage (Words)	256	2K	2K	32K	32K	32K
Scan Time (msec/K)	1.1 msec	1.1 msec	1.1 msec	1.1 msec	1.1 msec	1.1 msec
Battery Backed RAM	Super Cap only	Yes, and Super Cap	Yes, and Super Cap	Yes, and Super Cap	Yes, and Super Cap	Yes, and Super Cap
Real Time Clock	None	Included	Included	Included	Included	Included
Ports Available	1 RS-232	1 RS-232 and 1 RS-485	1 RS-232 and 1 RS-485	1 RS-232 and second port (RS-232, RS-485, USB, or Ethernet)	1 RS-232 and second port (RS-232, RS-485, USB, or Ethernet)	1 RS-232 and second port (RS-232, RS-485, USB, or Ethernet)
Ethernet Option	VersaMax SE	VersaMax SE	VersaMax SE	Second port	Second port	Second port
High Speed Counter	Up to 4 at 10Khz (16 bit)	Up to 4 at 10Khz (16 bit)	Up to 4 at 10Khz (16 bit)	Up to 4 at 100Khz (32 bit)	Up to 4 at 100Khz (32 bit)	Up to 4 at 100Khz (32 bit)
Pulse Train/PWM	Up to 4 at 5Khz (16 bit)	Up to 4 at 5Khz (16 bit)	Up to 4 at 5Khz (32 bit)	Up to 4 at 65Khz (32 bit)	Up to 4 at 65Khz (32 bit)	Up to 4 at 65Khz (32 bit)
Motion Commands	N/A	N/A	N/A	Find Home, Go Home, Jog, Ramp, Blended Move	Find Home, Go Home, Jog, Ramp, Blended Move	Find Home, Go Home, Jog, Ramp, Blended Move
Write Register Values to Internal Flash	Yes	Yes	Yes	Yes	Yes	Yes

Part Number	Description
Micro 14	
IC200UEX013	14 point Exp.(8) 12VDC In, (6) Relay Out
IC200UEX011	14 point Exp.(8) 24VDC In, (6) Relay Out, 120/240VAC Power Supply
IC200UEX012	14 point Exp.(8) 24VDC In, (6) Relay Out, 24VDC Power Supply
IC200UEX010	14 point Expansion (8) 120VAC In, (6) 120VAC Out
IC200UEX009	14 point Expansion (8) 120VAC In, (6) Relay Out
IC200UEX014	14 point Expansion (8) 24VDC In, (6)24VDC Out
IC200UEX122	14 point Expansion (8) 24VDC In, (6)24VDC Out, with ESCP
IC200UAA003	14 point PLC, (8) 120VAC In, (6) 120VAC Out
IC200UAR014	14 point PLC, (8) 120VAC In, (6) Relay Out
IC200UDD112	14 point PLC, (8) 12VDC In, (6) 12VDC Out
IC200UDR003	14 point PLC, (8) 12VDC In, (6) Relay Out
IC200UDD104	14 point PLC, (8) 24VDC In, (6) 24VDC Out
IC200UDR001	14 point PLC, (8) 24VDC In, (6) Relay Out
IC200UDR002	14 point PLC, (8) 24VDC In, (6) Relay Out
Micro 23	
IC200UAL004	23 point PLC, (13) 12VDC In, (10) Relay Out
IC200UAL006	23 point PLC, (13) 24VDC In, (1) 24VDC Out, (9) Relay Out, 120/240VAC Power Supply
IC200UAL005	23 point PLC, (13) 24VDC In, (1) 24VDC Out, (9) Relay Out, 24VDC Power Supply
Micro 28	
IC200UEX210	28 point Expansion (16) 120VAC In, (12) 120VAC Out,
IC200UEX209	28 point Expansion (16) 120VAC In, (12) Relay Out
IC200UEX215	28 point Expansion (16) 12VDC In, (12) 12 VDC Out
IC200UEX213	28 point Expansion (16) 12VDC In, (12) Relay Out
IC200UEX214	28 point Expansion (16) 24VDC In, (12) 24VDC Out
IC200UEX222	28 point Expansion (16) 24VDC In, (12) 24VDC Out, with ESCP
IC200UEX211	28 point Expansion (16) 24VDC In, (12) Relay Out, 120/240VAC Power Supply
IC200UEX212	28 point Expansion (16) 24VDC In, (12) Relay Out, 24VDC Power Supply
IC200UAA007	28 point PLC, (16) 120VAC In, (12) 120V/240AC Out, 120/240VAC Power Supply
IC200UAR028	28 point PLC, (16) 120VAC In, (12) Relay Out, 120/240VAC Power Supply
IC200UDD212	28 point PLC, (16) 12VDC In, (12) 12VDC Out
IC200UDR006	28 point PLC, (16) 12VDC In, (12) Relay Out, 12VDC Power Supply
IC200UDR228	28 point PLC, (16) 24VDC In, (11) Relay Out, (1) 24VDC Out
IC200UDR005	28 point PLC, (16) 24VDC In, (11) Relay Out, (1) 24VDC Out, 120V/240AC Power Supply
IC200UDR010	28 point PLC, (16) 24VDC In, (11) Relay Out, (1) 24VDC Out, 24VDC Power Supply

IC200UDD110	28 point PLC, (16) 24VDC In, (12) 24VDC Out
IC200UDD120	28 point PLC, (16) 24VDC In, (12) 24VDC Out, with ESCP
Micro 20	
IC200UDD020	20 point PLC, (12) 24VDC In, (8) 24VDC Out
IC200UDD220	20 point PLC, (12) 24VDC In, (8) 24VDC Sink Out
IC200UDR120	20 point PLC, (12) 24VDC In, (8) Relay Out, 120/240VAC Power Supply
IC200UDR020	20 point PLC, (12) 24VDC In, (8) Relay Out, 24VDC Power Supply
Micro 40	
IC200UDD040	40 point PLC, (24) 24VDC In, (16) 24VDC Out
IC200UDD240	40 point PLC, (24) 24VDC In, (16) 24VDC Sink Out
IC200UDR140	40 point PLC, (24) 24VDC In, (16) Relay Out
IC200UDR440	40 point PLC, (24) 24VDC In, (16) Relay Out, 12/24vDC
IC200UDR040	40 point PLC, (24) 24VDC In, (16) Relay Out, 24VDC
Micro 64	
IC200UEX364	64 point Expansion (40) 24VDC In, 24VDC sink Out
IC200UEX264	64 point Expansion (40) 24VDC In, 24VDC source outp
IC200UEX064	64 point Expansion (40) 24VDC In, relay Out, 24
IC200UEX164	64 point Expansion (40) 24VDC In, relay Out, AC
IC200UDD164	64 point PLC, (40) 24VDC In, (24) 24VDC Sink Out
IC200UDD064	64 point PLC, (40) 24VDC In, (24) 24VDC source Out
IC200UDR164	64 point PLC, (40) 24VDC In, (24) Relay Out
IC200UDR064	64 point PLC, (40) 24VDC In, (24) Relay Out, 24VDC
Expansion	
IC200UEX624	Expansion, 4 channel Analog In
IC200UEX826	Expansion, 4 channel Thermocouple/mV In module
IC200UEX824	Expansion, 4 channel Thermocouple/mV In module, 24VDC
IC200UEX636	Expansion, 6 channel Analog (4) In, (2) Out
IC200UEX616	Expansion, 6 channel Analog (4) In, (2) Out, 12VDC
IC200UEX626	Expansion, 6 channel Analog (4) In, (2) Out, 24VDC
IC200UEO116	Expansion, 16 Out (16) 24VDC Sink Out, 24VDC
IC200UER016	Expansion, 16 Out (16) Relay Out, 24VDC Power
IC200UEO016	Expansion, 16 point (16) 24VDC Source ESCP Out
IC200UEI016	Expansion, 16 point In (16) 24VDC In
IC200UEO008	Expansion, 8 Out (8) 24VDC Out
IC200UER008	Expansion, 8 Out (8) Relay Out, 24VDC Power S
IC200UEO108	Expansion, 8 Out 24VDC Sink Out, 24VDC Power S

IC200UEI008	Expansion, 8 point (8) 24VDC In
IC200UEC008	Expansion, 8 point combination (4) 24VDC In, (4) 24VDC Out
IC200UEC108	Expansion, 8 point combination (4) 24VDC In, (4) 24VDC Out, 24VDC
IC200UEC208	Expansion, 8 point combination (4) 24VDC In, (4) Relay Out
IC200UMM102	Expansion, VersaMax MicroMotion, 2 independent axis, 120/240
IC200UMM002	Expansion, VersaMax MicroMotion, 2 independent axis, 24VDC p
IC200UEX724	Expansion, RTD module for Pt 100
IC200UEX726	Expansion, RTD module for Pt 100
IC200UEX734	Expansion, RTD module for Pt 100
IC200UEX736	Expansion, RTD module for Pt 100
Communication	
IC200UEM001	Micro Plus 20/40/64 Ethernet module
IC200USB001	Micro Plus 20/40/64, RS-232 communications option
IC200USB002	20/40/64, RS-485 communications option board
IC200UUB001	20/40/64, USB Slave communications option board
IC200UMB001	20/40/64, User Program Memory Module
IC200SET001	Micro 14/23/28 Ethernet to Serial Interface

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