

VersaMax Micro PLC Expansion Units

VersaMax Micro PLC Expansion Units provide additional discrete points and analog I/O channels for the PLC system. Up to four VersaMax Micro PLC Expansion Units of any type can be connected to any VersaMax Micro PLC. Expansion units can be connected in any sequence.

Model Number	Description
IC200UEC008	8 Point (4) 24VDC In, (4) 24VDC Out with ESCP, 24VDC Power Supply
IC200UEC108	8 Point (4) 24VDC In, (4) 24VDC Out, 24VDC Power Supply
IC200UEC208	8 Point (4) 24VDC In, (4) Relay Out, 24VDC Power Supply
IC200UEI008	8 Point (8) 24VDC In, 24VDC Power Supply
IC200UEI016	16 Point (16) 24VDC In, 24VDC Power Supply
IC200UEO008	8 Point (8) 24VDC Out with ESCP, 24VDC Power Supply
IC200UEO016	16 Point (16) 24VDC Out with ESCP, 24VDC Power Supply
IC200UEO108	8 Point (8) 24VDC Out, 24VDC Power Supply
IC200UEO116	16 Point (16) 24VDC Out, 24VDC Power Supply
IC200UER008	8 Point (8) Relay Out, 24VDC Power Supply
IC200UER016	16 Point (16) Relay Out, 24VDC Power Supply
IC200UEX009	14 Point (8) 120 VAC In, (2) Relay Out @ 10 Amps (4) Relay Out @ 2 Amps, 120/240 VAC P.S.
IC200UEX010	14 Point (8) 120 VAC In, (6) 120 VAC Out, 120/240 VAC Power Supply
IC200UEX011	14 Point (8) 24 VDC In, (6) Relay Out, 120/240 VAC Power Supply
IC200UEX012	14 Point (8) 24 VDC In, (6) Relay Out, 24 VDC Power Supply
IC200UEX013	14 Point (8) 12 VDC In, (6) Relay Out, 12 VDC Power Supply
IC200UEX014	14 Point (8) 24 VDC In, (6) 24 VDC Out, 24 VDC Power Supply
IC200UEX015	14 Point (8) 12 VDC In, (6) 12 VDC Out, 12 VDC Power Supply
IC200UEX122	14 Point (8) 24 VDC In, (6) 24 VDC Out with ESCP, 24 VDC Power Supply
IC200UEX209	28 Point (16) 120 VAC In, (4) Relay Out at 10 Amp, (8) Relay Out at 2 Amp, 120/240 VAC P.S.
IC200UEX210	28 Point (16) 120 VAC In, (12) 120 VAC Out, 120/240 VAC Power Supply
IC200UEX211	28 Point (16) 24 VDC In, (12) Relay Out, 120/240 VAC Power Supply
IC200UEX212	28 Point (16) 24 VDC In, (12) Relay Out, 24 VDC Power Supply
IC200UEX213	28 Point (16) 12 VDC In, (12) Relay Out, 12 VDC Power Supply
IC200UEX214	28 Point (16) 24 VDC In, (12) 24 VDC Out, 6 at 1.0 Amp and, 6 at 0.5 Amp, 24 VDC Power Supply
IC200UEX215	28 Point (16) 12 VDC In, (12) 12 VDC Out, 12 VDC Power Supply
IC200UEX222	28 Point (16) 24 VDC In, (12) 24 VDC Out with ESCP, 24 VDC Power Supply
IC200UEX616	6 Point (4) Analog In and (2) Analog Out, 12 VDC Power Supply
IC200UEX624	4 Point (4) Analog In, 24 VDC Power Supply
IC200UEX626	6 Point (4) Analog In and (2) Analog Out, 24 VDC Power Supply
IC200UEX636	6 Point (4) Analog In and (2) Analog Out, 100-240 VAC Power Supply
IC200UEX724	4 RTD, Pt 100 In, 24VDC Power Supply
IC200UEX726	4 RTD, Pt 100 In and (2) Analog Out, 0 to 20mA , 4 to 20mA or 0 to 10VDC, 24VDC Power Supply
IC200UEX734	4 RTD, Pt 100 In, 120/240VAC Power Supply
IC200UEX736	4 RTD, Pt 100 In and (2) Analog Out, 0 to 20mA , 4 to 20mA or 0 to 10VDC, 120/240VDC P.S.

Chapter 9

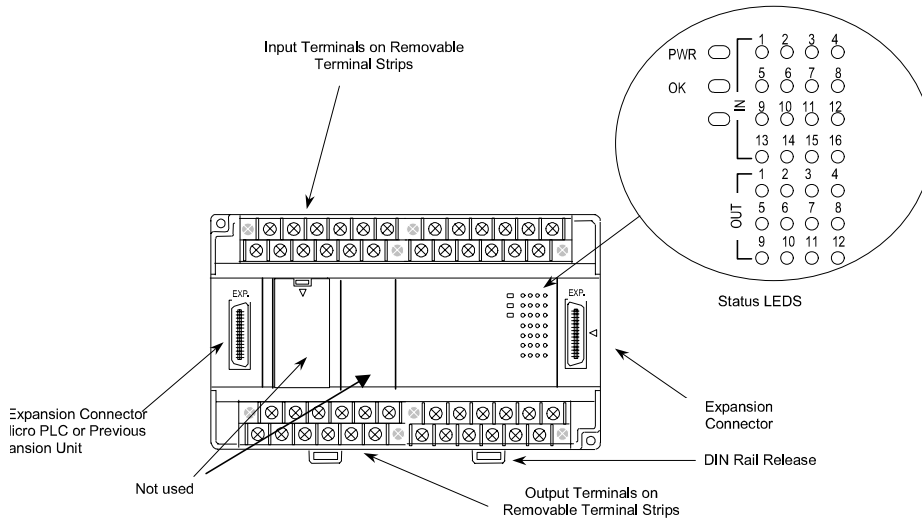
VersaMax Micro PLC 28-Point Expansion Units

This chapter consists of module datasheets for the following VersaMax Micro PLC Expansion Units:

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| ▪ IC200UEX209 | 28 Point Expansion Unit, (16) 120VAC In, (2) Relay Out at 10 Amps, (10) Relay Out at 2 Amps, 120/240VAC Power Supply |
| ▪ IC200UEX210 | 28 Point Expansion Unit, (16) 120VAC In, (12) 120VAC Out, 120/240VAC Power Supply |
| ▪ IC200UEX211 | 28 Point Expansion Unit, (16) 24VDC In, (12) Relay Out, 120/240VAC Power Supply |
| ▪ IC200UEX212 | 28 Point Expansion Unit, (16) 24VDC In, (12) Relay Out, 24VDC Power Supply |
| ▪ IC200UEX213 | 28 Point Expansion Unit, (16) 12VDC In, (12) Relay Out, 12VDC Power Supply |
| ▪ IC200UEX214 | 28 Point Expansion Unit, (16) 24VDC In, (12) 24VDC Out, 24VDC Power Supply |
| ▪ IC200UEX215 | 28 Point Expansion Unit, (16) 12VDC In, (12) 12VDC Out, 12VDC Power Supply |
| ▪ IC200UEX222 | 28 Point Expansion Unit, (16) 24VDC In, (12) 24VDC Out with ESCP, 24VDC Power Supply |

Features of VersaMax 28-Point Micro PLC Expansion Units

Modular 28-point Expansion Units can be used to increase the total I/O count of a Micro PLC. Expansion Units can be used with any 14- to 64-point Micro PLC. Expansion Units can be located up to 2 meters from the Micro PLC.



Removable Terminal Strips

The removable terminal assemblies are protected by hinged covers. After turning off power to the Expansion Unit, a terminal assembly and attached field wiring can be separated from the Expansion Unit by removing two screws.

Expansion Connector

The connector on the left side of the Expansion Unit is used to connect to the Micro PLC or to the outgoing connector on the previous Expansion Unit. The connector on the right side of the Expansion Unit can be used to attach to the next Expansion Unit.

Status LEDs

LEDs on the Expansion Unit provide quick visual verification of operating status. In addition to LEDs Expansion Unit local Power and OK mode, there is an LED for each I/O point.

Cables

A 0.1 meter ribbon cable (IC200CBL501) is provided with each Expansion Unit. Cables are also available in 0.5 meter (IC200CBL505) and 1 meter (IC200CBL510) lengths.

IC200UEX211
**28 Point Micro PLC Expansion Unit, (16) 24VDC In,
 (12) Relay Out, 120/240VAC Power Supply**

VersaMax Micro PLC Expansion Unit IC200UEX211 accepts sixteen DC inputs and provides twelve normally-open 2 Amp relay outputs. It uses 100VAC to 240VAC nominal input power.

DC Inputs

The sixteen configurable DC inputs can be used as positive or negative logic inputs. Inputs are compatible with a wide range of input devices, such as pushbuttons, limit switches, and electronic proximity switches. The +24 VDC supply can be used for input devices and to power the DC input circuits. The combination of input circuit current and external device current must not exceed 200 mA.

Relay Outputs (Q1 – Q12)

The twelve Form A (SPST-single pole single throw) normally-open relay outputs can control many types of load devices such as motor starters, solenoids, and indicators. The switching capacity of each of these circuits is 2 amps. An external source of AC or DC power must be supplied to operate field devices.

Expansion Unit IC200UEX211 Specifications

Inputs	Sixteen 24 VDC positive/negative logic input circuits
Outputs	Twelve normally open 2 amp relay circuits
+24 VDC Output Power Supply	200mA maximum (for input circuits and user devices)
AC Power Specifications	
Range	100 -15% to 240 +10% VAC
Frequency	50 -5% to 60 +5% Hz
Hold-up	10ms at 85 to 100VAC, 20ms at 100 to 265VAC
Inrush Current	30 Amp maximum at 200 VAC, 40 Amp maximum at 265 VAC
Inrush Time	2 ms for 40Amp
Input Current	0.20 Amp typical at 200 VAC, 0.10 Amp typical at 100 VAC
Input Power Supply Rating	26 VA

DC Input Specifications			
Number of Inputs	16		
Rated Input Voltage	24 volts DC		
Input Voltage Range	0 to 30 volts DC		
Input Current	7.5mA typical		
Input Resistance	2.8 Kohms		
Input Threshold Voltage	ON: 15VDC minimum, OFF: 5VDC maximum		
Input Threshold Current	ON: 4.5mA maximum, OFF: 1.5mA minimum		
Response Time	0.5 to 20ms configurable		
Isolation Voltage	1500V RMS field side to logic side, 500V RMS between groups		
Relay Output Specifications			
Operating Voltage	5 to 30 VDC or 5 to 250 VAC		
Isolation	1500 V RMS between field side and logic side, 500 V RMS between groups		
Leakage Current	15 mA at 240 VAC maximum		
Maximum UL Pilot Duty Rating	2 amps at 24 VDC and 240 VAC		
Maximum Resistive Load Rating	2 amps at 24 VDC and 240 VAC		
Minimum Load	10 mA		
Maximum Inrush	5 amps per half cycle		
Response Time	ON, OFF: 15 ms maximum		
Contact Life: Mechanical	20 x 10 ⁶ mechanical operations		
Contact Life: Electrical Voltage 240VAC, 120VAC, 24VDC	Current: Resistive 2.0A	Current: Lamp and Solenoid 0.6A	Typical Operations 200,000

Wiring Diagram, IC200UEX211

