

6.9 **IC200UDR005** **28-Point Micro PLC, (16) 24Vdc In, (1) 24Vdc Out, (11) Relay Out,** **120/240Vac Power Supply**

VersaMax Micro PLC IC200UDR005 accepts sixteen DC inputs and provides one 24Vdc output and eleven normally-open 2 Amp relay outputs. It uses 100Vac to 240Vac nominal input power for PLC operation.

6.9.1 **DC Inputs**

The sixteen configurable DC inputs can be used as positive or negative logic standard inputs, including up to four High-Speed Counter inputs. Inputs are compatible with a wide range of devices, such as pushbuttons, limit switches, and electronic proximity switches. The module provides +24Vdc output power for field devices, up to 200mA maximum.

6.9.2 **DC Output (Q1)**

The DC output circuit (Q1) can be configured to be a standard, High-Speed Counter, pulse train, or PWM output.

6.9.3 **Relay Outputs (Q2 – Q12)**

The module has eleven Form A relay outputs (SPST-single pole single throw). The normally-open relay outputs can control a wide range 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.

The relay outputs can be configured as up to three High-Speed Counter outputs. Relay outputs cannot be used as Pulse Train or PWM outputs.

6.9.4 Micro PLC IC200UDR005 Specifications

Weight	580 grams (1.28lbs)
Inputs	Sixteen 24Vdc positive/negative logic input circuits
Outputs	Eleven normally open 2 amp relay circuits and One DC Output (Q1)
High-Speed Counters	Up to four Type A or one Type A and one Type B
+24Vdc 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 200Vac, 40 Amp maximum at 265Vac
Inrush Time	2 ms for 40Amp
Input Current	0.20 Amp typical at 200Vac, 0.10 Amp typical at 100Vac
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 kΩ
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 as regular input; 100μs as HSC input
Isolation Voltage	1500V RMS field side to logic side, 500V RMS between groups
DC Output Specifications	
Output logic	Positive Logic
Operating Voltage	24Vdc / 12Vdc / 5Vdc
Voltage Range	24Vdc, +20%, -80%
Maximum UL Pilot Duty Rating	0.75A at 24Vdc
Maximum Resistive Load Rating	0.75A at 24Vdc 0.5A at 12Vdc 0.25A at 5Vdc
Output Voltage Drop	0.3Vdc maximum
Response	ON: 0.1ms maximum (24Vdc, 0.2A), OFF: 0.1ms maximum (24Vdc, 0.2A)
OFF state leakage	0.1mA maximum
Isolation	1500Vac between field side and logic side, 500Vac between groups
Fuse	Output should be fused externally. Otherwise, a load short can damage the module output transistor, which is not user replaceable.

Relay Output Specifications			
Operating Voltage	5 to 30Vdc or 5 to 250Vac		
Isolation	1500 V RMS between field side and logic side, 500 V RMS between groups		
Leakage Current	15 mA at 240Vac maximum		
Maximum UL Pilot Duty Rating	2 amps at 24Vdc and 240Vac		
Maximum Resistive Load Rating	2 amps at 24Vdc and 240Vac		
Minimum Load	10 mA		
Maximum Inrush	5 amps per half cycle		
Response Time	ON: 15 ms maximum, 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
High-Speed Counter / PWM and Pulse Train Output Specifications			
Maximum Counter Frequency	10kHz		
Input Voltage	ON: 15V, OFF: 5V		
Count Pulse Width	20% to 80% duty cycle at 10kHz		
Count Registers	16bits		
Outputs			
Type available	Up to four HSC outputs or three HSC outputs plus one PT or PWM output.		
Load Voltage	Q1: 5/12/24V, Q2-Q4: See relay output specifications		
Maximum Pulse/PWM Frequency	5kHz (Q1 only)		

6.9.5 Wiring Diagram IC200UDR005

