



# PMEUCM

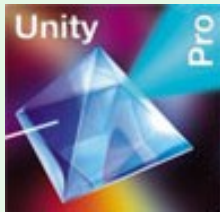
## Modicon X80 Universal Communications Module



**PMEUCM0302**



**PMEUCM0312**



Collaborative Automation  
by  
**Schneider Electric**

**Niobrara Research & Development Corporation**  
PO Box 3418  
Joplin, MO 64803  
800-235-6723  
Tel:+1 417-624-8918  
Fax:+1 417-624-8920  
[www.niobrara.com](http://www.niobrara.com)

©2018  
Niobrara Research & Development Corporation

### Overview

Niobrara's PMEUCM is a programmable communications module for Schneider Electric's Modicon M580 PAC. Available in two models with either two RS-232 or two RS-485 serial ports and two Ethernet ports, the PMEUCM may allow the M580 PLC to communicate with a variety of external devices. The PMEUCM uses the Ethernet backplane to communicate with the M580 CPU or eNOC DIO master. Configuration is done through a DTM in Unity Pro. An LCD display and joystick make front panel troubleshooting quick and easy. A real-time clock and a MicroSD slot make it popular for data logging applications.

### UCM2 Language

The PMEUCM runs an application written in NR&D's UCM2 language. This structured text language allows for up to 64 parallel threads. Each thread has access to all memory, serial ports, Ethernet IP Stack, LCD/keypad, SD card, real-time clock, and PLC backplane memory structures. The program is compiled using a free compiler from Niobrara and loaded into the card's FLASH memory.

The IP Stack provides user program with direct control of sockets and supports UDP and TCP operation as both client and server. Niobrara has example code for Web servers, telnet servers, SNMP agents, Chat clients, Modbus/TCP servers and clients, Ethernet/IP clients, email clients, and many others.

The serial ports have native modes for Modbus RTU as well as legacy Square D SY/MAX and RNIM. The serial ports also have a "raw" (UCM) mode for direct transmit and receive of characters. The UCM serial port mode includes multiple built-in CRC and LRC checksum calculations to assist implementing nearly any asynchronous serial protocol.

Niobrara offers UCM programming services. Contact technical support for more information and a quote.


## Ordering Information

- PMEUCM0302** Two 100BaseTX Ethernet ports, two RS-232 serial ports with Ethernet x80 Backplane
- PMEUCM0312** Two 100BaseTX Ethernet ports, two isolated RS-485 serial ports with Ethernet x80 Backplane

## Related Equipment

- MM1** Programming Cable, RS-232, RJ45 to DB9S
- DDC2I** Isolated RS-232<->RS-485 DIN rail mounted converter

### Requirements

|                             |   |
|-----------------------------|---|
| <b>Serial Ports</b>         | 0302 Ports S1 and S2 – fixed RS-232 RJ45 with RX and TX LEDs (RJ45 connectors)<br>0312 Ports S1 and S2 – fixed isolate 2-wire RS-285 RJ45 with RX and TX LEDs (Removable connectors included) |
| <b>Ethernet</b>             | Ports E1 and E2 – 10/100BaseTX auto-crossover RJ-45 with Link and 100MB LEDs<br>Each port is configured with independent network IP Address.  |
| <b>LCD Display</b>          | 64x128 pixel LCD with two red LEDs. 5 button joystick   |
| <b>LED Display</b>          | Green Run, Red ERR, Green PWR, User controlled lights 3 through 6.<br>Ethernet E1 and E2 Link, Green BP Active, and Green PLC RUN   |
| <b>Operating Conditions</b> | 0-55 degrees C operating temperature; -40 to 80 degrees C storage. Humidity up to 90% noncondensing. Pressure altitude -200 to +10,000 feet MSL.  |
| <b>Markings</b>             |    |

**Niobrara Research & Development Corporation**  
PO Box 3418  
Joplin, MO 64803  
800-235-6723  
Tel:+1 417-624-8918  
Fax:+1 417-624-8920  
[www.niobrara.com](http://www.niobrara.com)

©2018  
Niobrara Research & Development Corporation