



NR&D

DUCM

DIN Rail Mount Universal Communications Module

Overview

Niobrara's DUCM Universal Communications Modules are programmable communication modules for DIN rail mounted stand-alone applications. The unit includes up to four serial ports, a LCD display and keypad, a real-time clock, and up to two Ethernet ports.

QUCM Language

The QUCM is programmed via Niobrara's QUCM language. The language has a BASIC-like structure which makes it easy to read and follow. Powerful language extensions for data communications and PLC interfacing make it ideal for use as a PLC communication language. A TCP/IP stack is built in, making it easy to write application layer protocols using TCP, UDP, PPP, and IP. The language is compiled for the fastest possible execution. The compiler is included at no extra charge.

Although the QUCM is designed for user programming, many companies choose to have Niobrara write their QUCM code. Contact Niobrara for a quote.

Serial Ports

There may be up to four serial ports on the QUCM. Ports 1 and 2 are normally software selectable RS-232 or RS-485 while optional ports 3 and 4 are fixed RS-232 or RS-485. They use Modicon's pinouts, so standard cables work well. They are independently configurable as to baud rate, parity, data bits, and stop bits.

Ethernet Port

Several versions of the QUCM include 100BaseTX RJ45 Ethernet ports. Units with two ports have an embedded Ethernet switch supporting RSTP for copper ring redundancy. The QUCM has a TCP/IP stack which the user's application can access for easy implementation of various application layer protocols.

LCD / Time Clock

The QUCM has a high resolution LCD and a keypad for user configuration. The user application has full control of this operator interface. A real-time clock is available to the applications. It is especially useful for scheduling events or time-stamping data.

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Ordering Information

The DUCM is available as:

- **DUCM+102** One 10/100BaseT Ethernet, two isolated RS-232/RS-485 serial ports
- **DUCM+202** Two 10/100BaseT Ethernet, two isolated RS-232/RS-485 serial ports

Related Equipment

- **MM1** Programming cable, RS-232, RJ45 to DB9S
- **TR121ST** 110VAC (US) wall mount transformer.

Specifications

Warranty / Manual	The DUCM is furnished with a user manual on CD and carries a one-year warranty from the date of shipment. During the warranty period, free firmware upgrades are available. See Niobrara's Standard Terms and Conditions of Sale for additional warranty information.
Dimensions	DIN rail mount 4.4" wide by 4.4" tall by 3.5" deep. Approximately 1.2 pounds net.
Power Requirements	9-30VDC 6W - 3 position removable connector is provided
Indicators	Module: LCD with backlight and two red LEDs for error Serial Ports: Transmit and Receive for each port Ethernet: Link/Activity, 10/100
Ethernet Port	10/100BaseT port with RJ45 connector on bottom of unit. Optional second Ethernet connector for daisy-chain switch or RST copper ring operation.
Serial Ports	Two isolated ports selectable between RS-232 (RJ45 connector) and RS-485 (5 position removable screw terminal is provided). Independently configurable for baud rate, data bits, parity, stop bits, and protocol. RS-485 mode is 2- and 4-wire compatible.
Environmental	Operating conditions are 0-50C; humidity up to 90% noncondensing; pressure altitude -200 to +10,000 ft MSL.

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