UMC

UNIVERSAL MONITORING CONTROLLER

UMC is an "open architecture" programmable controller with built-in Ethernet networking and a large standard memory capacity for data logging. With 32-bit processing power and high level software tools that minimize programming time, UMC bridges the gap between traditional PLCs, RTUs and the new generation of Ethernet connected instruments. The UMC is well suited across a wide range of applications such as:

BUILDING SUPERVISORY SYSTEM
Hotel | Factories | Buildings

PERIMETER LIGHTING CONTROL
Prison | Army Camp | Large Compound

PERIMETER INTRUSION DETECTION
Prison | Army Camp | Large Compound

SECURITY CONTROLLER & ALARM MONITORING
Door Alarm | Factories Automation

Supports Wide Range Applications

Seamless Integration with Other Software Application

Easy Handling

Open Communications

IBS

KEY FEATURES

Supports Wide Range Applications

The UMC is well suited across a wide range of applications. As the system concept of the UMC is modular, the UMC is highly scalable and expandable. UMC is a seamless yet affordable local and remote communications and control that not only puts the remote site report data at your fingertips, but also provides affordable remote communications and control, minimizing the likelihood of remote site issues.

Seamless Integration with Other Software Application

Any compatible software can be integrated into the UMC and allows monitoring and control locally or remotely. Data records are automatically retrieved and stored in the UMC. This data can easily be transmitted onto the communications network upon request. Using the UMC for any suitable application will result in significant cost saving since no additional PC is required at site. The integrated application software communicates online with the UMC therefore, no additional system for data input is required.
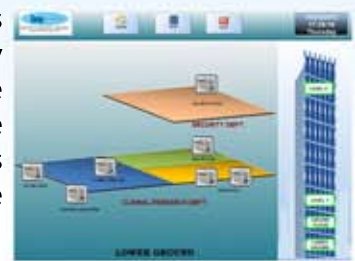
Easy Handling

High-speed pulse inputs accept conditioned and "raw" signals from devices and it includes a built-in "smart" uninterruptible power supply. The handling of the UMC is easy and the UMC can be adjusted to local requirements. Migration solutions for existing controllers as well as a wide variety of protocols and interfaces to several control systems are available. UMC highly flexible redundancy concept allows adjusting the UMC to customers needs. This includes communication interfaces, central processing units as well as power supplies.

Open Communications

UMC is an "open architecture" programmable controller with built-in Ethernet networking, wireless, hardwired and modem communications, and a large standard memory capacity for data logging and "over-the-link" program updates. With 32-bit processing power and high level software tools that minimize programming time, UMC bridges the gap between traditional PLCs, RTUs and the new generation of Ethernet connected instruments. The open architecture design of UMC extends to its communications capabilities by supporting standard protocols like ASCII, TCP/IP as well as the standard suite of Ethernet protocols. UMC is easily integrated into existing Local Area Networks to the other systems.
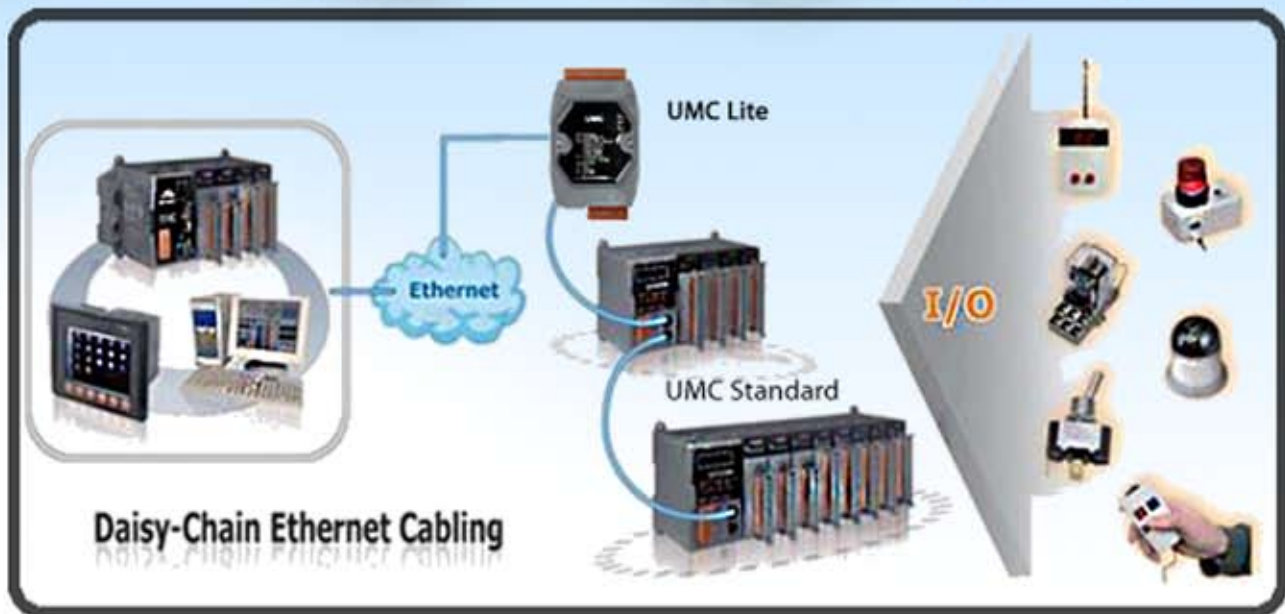
Standard (Native) communication protocol
- ✔ IEC-870-5-101
- ✔ IEC-870-5-103
- ✔ IEC-970-5-104

Other protocol implemented/supported
- ✔ Native BACnet MS/TP
- ✔ TCP/IP - OPC
- ✔ Modbus + Wave
- ✔ IEC 870-5-1131
- ✔ DNP 3.0
- ✔ TLC 11M
- ✔ SEL
- ✔ ABB RP570/1
- ✔ Harris HR2000
- ✔ Westinghouse Extended Wisp+
- ✔ Others (Client Specified)

IBS

SYSTEM DIAGRAM

UMC Lite

Ethernet

I/O

UMC Standard

Daisy-Chain Ethernet Cabling

TECHNICAL SPECIFICATIONS

ITEM	DESCRIPTION
System Software	
Operating System	Windows CE 5.0
Embedded Service	FTP server, Web Server
Processor	
CPU	PXA 270 or compatible (32-bit and 520 MHz)
SD RAM	128 MB
Dual Battery Back Up (SRAM)	512KB (5 years data retain while power off)
Flash	128 MB
EEPROM	16KB (Data retention: 40 years, 1,000,000 erase/write cycles.
microSD	microSD socket with one 2 GB microSD card (support up to 16 GB microSDHC card)
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year
64-bit Hardware	Yes, for software copy protection
Serial Number Watchdog	Dual Watchdog timers
Programmable LED Indicator	1
DIP Switch	Yes (8-bit)

TECHNICAL SPECIFICATIONS

ITEM	DESCRIPTION
Communication Port	
Ethernet	RJ-45 x 2, 10/100 Base-TX (Auto-negotiating, LED indicators)
COM 0	Internal communication with the modules in slots
COM 1	RS-232, non-isolated
COM 2	RS-485, 3000 VDC isolated
COM 3	RS-232/RS-485, non-isolated
COM 4	RS-232, non-isolated
I/O Expansion Slot	
Slot number	4/8 hot swap slots
I/O modules	16 Channel Digital Inputs (DI)
	16 Channel Digital Outputs (DO)
	8 Channel Analog Inputs (AI)
Mechanical	
Dimension	-UMC-8 slots: 355mm x 132 mm x 111mm - UMC-4 slots: 231 mm x 132 mm x 111mm
Installation	DIN-Rail or Wall Mounting
Environmental	
Operating environment	-25 ~ +75°c
Storage temperature	-30 ~ +80°c
Ambient relative humidity	10 ~ 90% RH (non-considering)
Power	
Input range	+10 ~ +30VDC
Isolation	1Kv
Redundant power inputs	Yes, with one power relay (1A @ 24VDC) from alarm
Power consumption	9.6 W (0.4 A @ 24 VDC)

For Further Information, please contact

IBS