uP3000 WLC Web enabled Logic Controller

HIGHLY INTEGRATED

High Resolution Color Graphical Touch Panel interface with 16 multi color indicator lights and 36 I/O points, four Serial Ports, Integrated HID RFID Reader, 8 TriColor LED indicators, 5 integrated stacklight LEDs.

FLEXIBLE COMMUNICATION

Supports concurrent Network communication paths from EtherNET/IP, DeviceNET, FLnet, TCP/IP and a host of others.

POWER SOURCE FLEXIBILITY

Dual Class II power sources from DC Supply or PoE.

COMPACT ROBUST DESIGN

Unit Measures 10” x 6” x 3.5” in a rugged die cast aluminum enclosure.

FEATURES

- Digital Picking System
- Reduces Spares
- Reduces Training
- Multi-Page Color HMI

uP3000 Front View

uP3000 Top View

- The high level of integration provides an HMI Interface, dozens of Input/Output points and a powerful processor to carry out the majority of Logic Control tasks with no additional hardware. The high performance screen and touch panel interface provide a top quality user experience and supports both Full Motion and Static high resolution color images in an optimal 7” display.
- The compact design allows for the mounting of the unit within close proximity to an operator with minimal mounting hardware. Despite the rugged die cast aluminum enclosure the unit weighs a mere 7lbs (3.2Kg) which allows for a variety of low cost mounting solutions.
- Flexible communication is provided through two Network Data Paths, allowing segmentation of the *“Time Critical”* control functions from lower priority data gathering functions when needed. With a variety of choices available, the default port uses Ethernet RJ45 with PoE and the other port can be chosen that best fits customer requirements.
- Multiple power sources allow for supply from a Class II 24Vdc supply or via an Ethernet cable fed from a PoE isolated mid-span power source. Using PoE further reduces wiring requirements, system complexity and cost.

The uP3000 Web enabled Logic Controller is the third generation in a series of high performance highly integrated Logic Controllers designed to replace more expensive systems requiring a separate HMI, Processor, Network Interfaces and multiple I/O points. The architecture is built on an open platform and leverages the ever increasing FOSS (Free or Open Source Software) model. Our freely available WAT programming API allows for easy integration into HTML/JavaScript and more object oriented programming languages. No cost provided sample software and tools allows the developers to implement and test applications on a standard desktop PC with easy deployment to the unit for production in mere hours.

The system employs the proven Linux Operating System, allowing for multiple programming languages and programming models such as simple web pages to more sophisticated C++ embedded applications. With the incorporation of Real Time Automation’s Common Industrial Protocol (CIP™) stack communication via industry standard EtherNet/IP™ and DeviceNet™ we offer reliable connection to a variety of industry standard PLC’s and Automation equipment. Additionally, other protocols such as FLNet , ProfiBus and ModBus can be added to the system as an option.

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Technical Specifications

INPUT/OUTPUT OPTIONS

By design the unit has multiple I/O configurations that best suit your system needs.

CUSTOMIZATION

Our experienced design team is available for customizing a complete system solution using the uP3000 and your existing PLC's and Automation equipment. From development of an efficient System Architecture to customization and optimization of the unit firmware, we can deliver a reliable, maintainable and cost effective solution in a short amount of time.

In order to keep the high level of integration there are several options available for the I/O located on the bottom of the unit. Using 19pin MDC Mini connectors it is possible to connect to 2/4/8 port 5pin field cables. This keeps cabling tight and offers a variety of industry standard wiring options. An option is also available with two 8 pin Serial connections, one 10 pin AUX, and one USB Host connection. Alternatively, if your requirements do not include an IP65 rating, then Terminal block based solutions are available.

AXM-UP3400-0000 Bottom View

AXM-UP3190-0000 Bottom View

AXM-UP3800-0000 Bottom View

Display

- Integrated LCD 800x480 16bits per pixel ,contrast ratio 240, 320 nits
- Integrated 4-wire resistive touch screen
- Eight (8) Tri-Color LEDs Horizontally aligned
- Five (5) High Brightness LEDs Vertically aligned (Red, Yellow, Green, White, Blue)
- Integrated HID® RFID Reader for Weigand badges

Input & Output Board

- Sixteen (16) 24V NPN/PNP Inputs
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- Four (4) RS232 ports for Bar Code readers or auxiliary use
- Isolated Auxiliary IO supports 2 optically isolated inputs and two user definable Form C Dry Contact Relay outputs
- External stacklight connection for 3/5 color devices
- Models available with USB Host/Slave and USB OTG Host Connections
- Inputs for up to 8 tools or 5 area sensors
- Inputs are capable of monitoring battery voltage, temperature, Pressure, Flow, volume etc.

Processor Board

- Freescale® ARM 1136JF-S i.MX31 processor
- Memory : 64MB NAND flash, 2MB NOR flash
- Low-power 266 MHz DDR SDRAM memory 128 MB
- High speed RS-232 Serial
- High speed SPI I/O channel interface to I/O Boards
- One USB 2.0 high-speed Host Interface
- One USB 2.0 high-speed OTG Interface
- 16-bit stereo DAC, 13-bit ADC
- Stereo IN, Stereo OUT, HEADPHONE
- I2S compliant audio codec (Freescale MC13783)
- 10/100 Base-T Ethernet controller, with PoE (802.3af compliant)

Interfaces

- 10/100 Mbit Ethernet w/ PoE on RJ45
- OPTIONAL: Isolated 5pin DeviceNet on Micro MDC
- OPTIONAL: Secondary Ethernet on RJ45 (no PoE)

Software

- Linux 2.6.x
- WebKit under Qt/Embedded
- GStreamer for Audio/Video
- Real Time Automation CIP Stack

Network Protocols

- EtherNet/IP™ and DeviceNet™
- FLNet , ProfiBus, ModBus, etc.
- TCP/IP,

Mechanical

- Weight: 7 lbs (3.2kg)
- Size: 10" x 6" x 3.5"
- Operating Temperature: -10ºC to +60ºC
- Storage Temperature: -40ºC to +85ºC
- Humidity:40% non-condensing
- Enclosure Type (with Screen): IP61 (drip proof)
- Enclosure Type (without Screen): NEMA 4/IP65 (drip proof)
- Vibration: 5-17Hz, 0.1" double amplitude displacement 17-640Hz, 1.5G acceleration peak to peak
- Shock:10G (11mS) peak-to-peak acceleration

Device Management

- On-Screen configuration
- Management Console (AXMC)
- AXMC supported on Windows® Vista™**, Windows® Server 2003, Windows® XP SP2**

Package Contents

- uP3K Device in ShipSafe packaging
- CD containing AXMC management software
- User and Installation Manual
- Warranty registration card

Warranty

- 1 Year Limited

** not included

ORDERING INFORMATION

DESCRIPTION	PART NUMBER	PRICE
Basic unit comes complete with Ethernet, integrated 5 Color stacklight, integrated HID behind faceplate	-	
w/ External 3 Color stacklight connector	AXM-UP3000-0000	
w/ External 5 Color stacklight connector	AXM-UP3000-0100	
w/ DeviceNet Slave & EtherNet/IP, 40 contact detachable terminal block, three DE-9 Serial connections	AXM-UP3100-0107	
w/ DeviceNet Slave & EtherNet/IP, two 19pin I/O Mini MDC, one 10pin AUX Mini MDC, three 8pin Micro Serial	AXM-UP3190-0205	
w/ two 8pin Serial connections, one 10pin AUX Mini MDC, one USB Host connection	AXM-UP3800-0000	
w/ FLNet slave option card, 40 contact detachable terminal block, three DE-9 Serial connections	AXM-UP3280-0000	
Basic Unit w/ reduced I/O and smaller form factor		
WAT Development Kit for UP3K Family products	AXM-UP3000-WAT	
ACCESSORIES	**PART NUMBER**	**PRICE**
3 Color Mini stacklight with integrated 5 pin Mini MDC connector	AXM-UP2000-L000	
5 Color Mini stackight with integrated 8pin Micro MDC connector	AXM-UP2000-L100	
Strain relief kit	AXM-UP3100-B004	
6 Hole Aluminum Mounting Plate	AXM-UP3100-B001	
Arm Mounting Kit	Call	