AI-500-085-02
Field Monitoring Unit

Overview

The AI-500-085-02 Field Monitoring Unit (FMU) controller provides a cost-effective and easy-to-integrate means of adding priority, preemption, passthrough communication, and video streaming capabilities into traffic cabinets, as well as facilitating remote monitoring of traffic intersection status and health. Built-in, the unit has a high-speed 4G LTE cellular modem, GPS, and 900MHz radio to make priority and preemption easy to configure. The device can remotely switch two (NEMA 5-15) power outlets inside the ITS cabinet and is designed to withstand extreme temperature applications.

The unit comes standard with a built-in 4 port Ethernet switch, multiple digital and analog IO as well as 8 digital outputs for triggering preemption commands to the traffic signal controllers. The unit can also send priority requests directly to the traffic controller, using Ethernet communications.

The unit works in conjunction with the Glance Platform, providing connectivity to the cloud-based utility solution. Glance monitors the unit and connected cabinet components in real-time and sends email or text alerts the moment a fault is detected, with details of the exact fault.

Features & Benefits

- Low-cost internet connectivity solution
- 19-inch rack mount 1U high
- 4 Port Ethernet switch
- Remotely switchable outlets
- On-demand wireless video streaming
- GPS enabled for self-locating
- Passthrough communications
- Connects to TravelSafely smartphone alerts
- Alarm alerts sent via text or email
- Integrated battery backup for power fail reporting
- Redundant communications supporting both 900MHz radio & Cellular communication

Call us today to get started at 678.830.2170 or email us at sales@appinfoinc.com

Hardware Specification

AI-500-085-02

Connectivity

Cell Modem	Yes, 4G LTE
Connected Vehicles	Yes, Cellular, C-V2X Ready
Ethernet Port	4 Ethernet Ports
GPS	Yes

Industrial I/O

Digital Outputs	10 (2 as NO/NC Relay, 8 as 24VDC ground true)
Digital Inputs	8 (4 as 120VAC/12-28VDC selectable, 4 as 12-28VDC
Analog Inputs	8 (4 as 120VAC/12-28VDC selectable, 4 as 12-28VDC

Power

Outlets	NEMA 5-15 (2x 120V, remotely switchable rated 15 amp total)
Power Consumption	12.5W

Miscellaneous

Operating Systems	µC/OS-II
Manual Preempt Selector	Yes
Operating Temperature	-40°C to 80°C
Humidity	5-95% non-condensing
Dimensions	17.5" W x 1.75" H x 7.5" D
Input Voltage	120V AC
Real-Time Clock	Yes
Flash Disk	Yes
Battery Backup	Yes

Applications

Emergency Vehicle Preemption	Yes
Transit Signal Priority	Yes
School Bus Priority	Yes
Remote Communication	Yes
Police Preemption	Yes
Snowplow Priority	Yes