





The IDI 1931 is one of a family of low-cost solutions to the implementation of field devices that require NTCIP conformant communication. The small size and powerful performance of the IDI 1931 controller make it the perfect engine to control color signs, traffic count systems, weather stations, cameras or any custom application where NTCIP communication is required.

The IDI 1931 brings a new level of performance to the Intelligent Devices family of NTCIP Field Device Controllers. The controller maintains all the features and small size of the 1321 controller, with the addition of a more powerful processor, more memory, and additional Flash memory options.

### **IDI 1931 Features:**

- > Pin compatible with the IDI 1321 controller.
- > New 59 MHz processor
- > 1 MB of RAM, 512 kB of battery-backed RAM
- > 10/100Base-T Ethernet port w/ RJ-45 connector
- > 16 MB of internal Flash memory for data storage
- > Removable miniSD card slot, (up to 1 GB)
- > Four serial ports, two of which are jumper -selectable for RS-485
- > Eight digital inputs, four analog inputs, and four digital outputs



# **→** HARDWARE SPECIFICATION

**Module Size** (overall, including connectors) 5.7" x 4.8" x .9", 144mm x 122mm x 24mm

Attachment Qty 4 x 0.156" (4mm) holes

Operating Temp  $-40^{\circ}\text{C to } +74^{\circ}\text{C } (-40^{\circ}\text{F to } +165^{\circ}\text{F})$ 

**Humidity** 5-95% non-condensing

Power Requirement9-30V AC or DC; 120mA @ 12VDCDigital I/O8 inputs, 4 outputs - 100 mA max.

Analog Inputs 4 inputs, 12 bit accuracy; 4.8VDC full-scale, 24k input impedance

Processor Speed59 MHzData SRAM (battery backed)512kBFast Program Execution SRAM1MBSerial Flash memory (code)2MB

Flash memory (data) 16 MB (cannot be used with miniSD card)

**Removable miniSD card slot**Supports up to 1 GB of FLASH memory (not included)

**Serial Ports** 4 Total: 2 - RS232 Full Hardware Flow Control, 2 - RS232 Full

Hardware Flow Control or 4 wire RS485, jumper-selectable

Watchdog Supervisor

Time/date Clock

Battery Back up

Temperature Sensor

LED

Yes

Yes

Yes

Switches Reset pushbutton and 8-position DIP

Ethernet 10/100 BaseT with three LED's; LINK/ACT; FDX/COL; SPEED

## **≥** SOFTWARE SPECIFICATION

#### PROTOCOL STACKS SUPPORTED

Direct Connect (RS-232): Data Objects > SNMP > Null > PMPP > RS-232 > DB9M

Direct Connect (RS-485): Data Objects > SNMP > Null > PMPP > RS-485 > Twisted Pair

Dial Up : Data Objects > SNMP > Null > PMPP > V Series Modem > Telephone Co

Ethernet: Data Objects > SNMP > TCP/IP or UDP/IP > Ethernet > RJ-45

PMPP over Ethernet: Data Objects > SNMP > PMPP > TCP/IP or UDP/IP > Ethernet > RJ-45

Wireless: Data Objects > SNMP > TCP/IP or UDP/IP > Ethernet > RJ-45 > Cellular Wireless

#### STANDARD MASTER OID TABLES

1201 - Global Objects
 1203 - Dynamic Message Signs
 1204 - Environmental Sensor Systems
 1205 - CCTV Camera Control

1209 - Transportation System Sensors Custom Conformance Group Configuration Available

#### **PROGRAMMING**

NTCIP-compliant firmware is programmed in a real-time, multi-tasking operating system. Custom device drivers are available for multiple field devices, including signs, cameras, ramp meter systems, weather monitoring systems, traffic sensors, parking monitoring systems and others.

### OPTIONS ORDERING INFORMATION

Training, Application Assistance, Telephone Support, Upgrades and Enhancements

IDI 1931 - Base Controller