



DATASHEET:  
**PANEL INTERFACE**  
**DI 20116**

## PRODUCT SUMMARY

The Delta Integrated DI 20116 is an edge device to machine interface unit.

It is designed to connect Delta Integrated edge devices to industry standard fire panels, using one of its three relay outputs to inform the panel that a device on the mesh network has sent an alert.

It has an inbuilt LCD display that shows the information on the connected nodes.

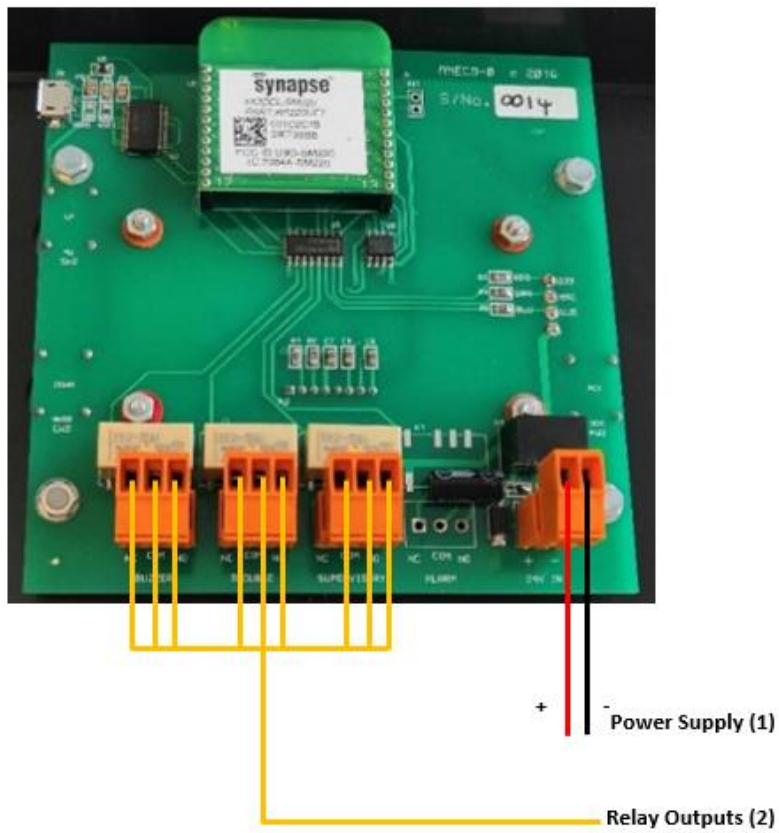
The 20116 employs SNAP OS, the industry's first internet-enabled, wireless mesh network operating system, into the Atmel ATmega128RFA1 single-chip. AVR® microcontroller with an integrated transceiver that delivers up to 2M-bits/sec.

SNAP OS on-board Python interpreter provides rapid application development and over-the-air programming, while Atmel's low-power RF single-chip design saves board space and lowers power consumption. The modules provide up to 16 channels of operation in the ISM 2.4GHz frequency band.

## BENEFITS AT A GLANCE

- 3 x relay outputs allow for simple communications with pre-existing fire and safety systems representing trouble, supervisory and buzzer outputs (35Vdc max at 2amps)
- Cost effective alternative to the FM approved (pending) DI 20114
- Dual line 16-character LCD display with node information and alert type displayed, colour changes between flashing red (Non-acknowledged), red (Acknowledged) and green (Resolved) depending on the state.
- Durable plastic enclosure
- Transmit power output up to +20 dBm
- SNAP mesh enabled (2.4GHz, IEEE 802.15.4)
- RF Data rate up to 2Mbps
- Self-healing mesh network
- 0°C to +49°C industrial operating temperature

## CONNECTION DIAGRAM



### DETAILS

1. Power Supply: 12-24Vdc @ 150mA
2. Relay Outputs
  1. Single Pole Double Throw
    1. Common
    2. Normally Open
    3. Normally Closed

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## COMPLIANCE

- ACMA Radiocommunication (Low Interference Potential Devices) Compliant
- SNAP mesh enabled (2.4GHz, IEEE 802.15.4)

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## APPLICATIONS

- Connecting Delta Integrated mesh network to a Fire Panel or similar monitoring based panel (BMS, Security etc)
- Displaying the status of nodes on the mesh network
- Simple control systems

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## SPECIFICATIONS

Electrical rating

- 12-24Vdc

Dimensions

- 188 x 135 x 50mm (dimensions at the widest points)

Mounting

- DIN rail strip mounted on the rear of the enclosure

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## PRINCIPLES OF OPERATION

The DI 20116 operates using the SNAP Mesh Network. This innovative and secure technology ensures stable and near instantaneous network communications. In the event that the direct route of communication between units is broken the mesh can reroute communications to ensure continued communication.

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## CERTIFICATION

- FCC Part 15.247, FCC ID: U90-SM220
- Industry Canada (IC), 7084A-SM220