



AMEREX – 30111 Single Analogue and 3 Digital Input encapsulated

30111 Single analogue input

AMEREX Integrated 30111 single analogue and three digital inputs module is one of a range of base units that can be connected easily into other pieces of 4-20mA devices, such as gas detectors and temperature sensors

AMEREX Integrated 30111 employs innovative ideas and technologies to provide the best possible mesh platform for the user. The 30111 is an IEEE 802.15.4, low-power, highly reliable solution for embedded wireless control and monitoring networks requiring high data rates. The 30111 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 2Mbits/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. By default, the 30111 operating system automatically forms a mesh network with other nodes immediately on receiving power. No further configuration is necessary.

Benefits

AT A GLANCE:

- 1 x Analogue input for 4-20mA
- 2 x Digital inputs
- 1 x Monitored digital input (selectable)
- 1 x Relay output (rated 100mA)
- 1 x LED output
- Transmit Power output up to +20 dBm
- SNAP mesh enabled (2.4GHz, IEEE 802.15.4)
- RF Data rate up to 2Mbps
- Power requirements 5-24v d.c
- Mesh networking (2.4GHz)
- -40°C to +70°C Industrial operating temperature



AMEREX—30111

AMEREX Integrated 30111 module has been especially designed for ease of use and to provide the user with a stable mesh network.

The 30111 provides one analogue input, two digital inputs and one monitored digital input which is selectable via on-board jumper. The unit also provides a LED output and a single output for a relay rated at 100mA.

The 30111 is powered by 24v d.c.

In depth information:

- 32 GPIO with up to 7 A/D inputs
- 128k flash, 58.5k free for over-the-air uploaded user apps
- Two UART ports for control or transparent data
- Low power modes:
 - Timed Sleep Mode 1 : 1.27 μ A
 - Timed Sleep Mode 2 : 1.47 μ A
 - Untimed Sleep Mode : < 390 nA
- Spread Spectrum (DSSS) technology
- Up to 2 Mbps radio data rate
- 2.4 GHz RF Frequency
- AES 128-bit encryption
- Integrated on-board compact F antenna or U.FL connector*
- Surface Mount, Solder-able
- 4K internal EEPROM
- 8 PWM outputs
- Supports over the air firmware upgrades. (see Portal users guide.)

