

- CANBUS CAN port:
 - 1,000 m (3,280 ft) with baud rate 20,000 baud
 - 500 m (1,640 ft) with baud rate 50,000 baud
 - 250 m (820 ft) with baud rate 125,000 baud
 - 50 m (164 ft) with baud rate 500,000 baudaccording to the factory setting the device automatically detects the baud rate of the other elements making the network, on condition that it is one of those listed before; on afterwards set manually the baud rate to the same value of that of the other elements
- USB port: 1 m (3.280 ft).

To wire the device one suggests using the connecting kit CJAV31 (to order separately): only female removable screw connection terminal blocks with pitch 3.5 mm (0.137 in) for conductors up to 1.5 mm² (0.0028 in²) and only female removable screw connection terminal blocks with pitch 5.0 mm (0.196 in) for conductors up to 2.5 mm² (0.0038 in²).

To program the device one suggests using the connecting cables 0810500018 or 0810500020 (to order separately): the cable 0810500018 is 2.0 m (6.561 ft) long, the cable 0810500020 is 0.5 m (1.640 ft) long.

Operating temperature:

- from -10 to 55 °C (from 14 to 131 °F) for the built-in versions
- from -20 to 55 °C (from -4 to 131 °F) for the blind versions.

Storage temperature: from -25 to 70 °C (from -13 to 158 °F).

Operating humidity: from 10 to 90% of relative humidity not condensing.

Control pollution situation: 2.

Environmental conformity:

- RoHS 2011/65/CE
- WEEE 2012/19/EU
- REACH regulation (CE) n. 1907/2006.

EMC conformity:

- EN 60730-1
- IEC 60730-1.

Power supply:

- 24 VAC (+10 % -15 %), 50/60 Hz (±3 Hz), 20 V A max. not isolated
- 20... 40 VDC, 12 W max. not isolated

supplied by a class 2 circuit.

Protect the power supply with a 2 A-T 250 V fuse.

If the device is powered in direct current, it will be necessary to respect the polarity of the power supply voltage.

Rated impulse voltage: 4 KV.

Overvoltage category: III.

Class and structure of software: A.

Real time clock: incorporated (with lithium primary battery).

Battery range in absence of power supply: 5 years @ 25 °C (77 °F).

Drift: ≤ 30 s/month @ 25 °C (77 °F).

Analog inputs: 5 inputs:

- 3 which can be set via configuration parameter for PTC, NTC or Pt 1000 probes
- 3 which can be set via configuration parameter for PTC, NTC, Pt 1000 probes, 0-20 mA, 4-20 mA, 0-5 V ratiometric or 0-10 V transducers

Power supply 0-5 V ratiometric transducers: 5 VDC (+0 %, -12 %), 60 mA max.

Power supply 0-20 mA, 4-20 mA and 0-10 V transducers: 12 VDC (±10 %), 120 mA max.

The maximum current which can be supplied on the whole from the two power supply is 120 mA.

PTC analog inputs (990 Ω @ 25 °C, 77 °F)

Kind of sensor: KTY 81-121.
Working range: from -50 to 150 °C (from -58 to 302 °F).

Accuracy: ±0.5 % of the full scale.
Resolution: 0.1 °C.
Conversion time: 100 ms.
Protection: none.

NTC analog inputs (10 KΩ @ 25 °C, 77 °F)

Kind of sensor: Ø3435.
Working range: from -40 to 120 °C (from -58 to 248 °F).

Accuracy: - ±0.5 % of the full scale from -40 to 100 °C
- ±1 °C from -50 to -40 °C and from 100 to 120 °C.
Resolution: 0.1 °C.
Conversion time: 100 ms.
Protection: none.

NTC analog inputs (10 KΩ @ 25 °C, 77 °F)

Kind of sensor: NTC type 2.
Working range: from -40 to 86 °C (from -40 to 186 °F).

Accuracy: ±1 °C.
Resolution: 0.1 °C.
Conversion time: 100 ms.
Protection: none.

NTC analog inputs (10 KΩ @ 25 °C, 77 °F)

Kind of sensor: NTC type 3.
Working range: from -40 to 86 °C (from -40 to 186 °F).

Accuracy: ±1 °C
Resolution: 0.1 °C.
Conversion time: 100 ms.
Protection: none.

Pt 1000 analog inputs (1 KΩ @ 0 °C, 32 °F)

Working range: from -100 to 400 °C (from -148 to 752 °F).

Accuracy: - ±0.5 % of the full scale from -100 to 200 °C
- ±2 °C from 200 to -400 °C.

Resolution: 0.1 °C.
Conversion time: 100 ms.
Protection: none.

0-20 mA and 4-20 mA analog inputs

Input resistance: ≤ 200 Ω.
Accuracy: ±0.5 % of the full scale.
Resolution: 0.01 mA.
Conversion time: 100 ms.
Protection: none; the maximum current allowed on each input is 25 mA.

0-5 V ratiometric and 0-10 V analog inputs

Input resistance: ≥ 10 KΩ.
Accuracy: ±0.5 % of the full scale.
Resolution: 0.01 V.
Conversion time: 100 ms.
Protection: none.

Digital inputs: 5 inputs (which can be set with the development environment UNI-PRO 3 for NO or NC contact):

- 2 at 24 VAC/DC, 50/60 Hz or 2 KHz optoisolated; the frequency can be set with the development environment UNI-PRO 3
- 3 at 24 VAC/DC, 50/60 Hz.

24 VAC/DC, 50/60 Hz digital inputs

Power supply: - 24 VAC (±15 %), 50/60 Hz (±3 Hz)
- 24 VDC (+66 %, -16 %).

Input resistance: ≥ 10 KΩ.
Protection: none.

24 VAC/DC, 2 KHz digital inputs

Power supply: - 24 VAC (±15 %), 50/60 Hz (±3 Hz)
- 24 VDC (+66 %, -16 %).

Input resistance: ≥ 10 KΩ.
Protection: none.

Analog outputs: 3 outputs:

- 2 which can be set via configuration parameter for PWM or 0-10 V
- 1 which can be set via configuration parameter for 0-20 mA, 4-20 mA or 0-10 V.

PWM analog outputs

Power supply: 10 VDC (+16 %, -25 %), 10 mA max.

Frequency: 0... 2 KHz.
Duty: 0... 100 %.

Protection: none.

0-20 mA and 4-20 mA analog outputs

Input resistance: 40... 300 Ω.
Accuracy: ±3 % of the full scale.
Resolution: 0.05 mA.
Conversion time: 1 s.

Protection: none.

0-10 V analog outputs

Input resistance: 1 KΩ.
Accuracy: ±3 % of the full scale.

Resolution: - +2 %, -5 % of the full scale for loads having impedance from 1 to 5 KΩ

- ±2 % of the full scale for loads having impedance > 5 KΩ.

Digital outputs: 7 outputs:

- according to the model:
 - six 3 res. A @ 250 VAC SPST electromechanical relays (K1... K6)
 - two 24 VAC/DC, 600 mA max. commands for solid state relay (K1 and K2) and four 3 res. A @ 250 VAC SPST electromechanical relays (K3... K6)

- one 3 res. A @ 250 VAC SPDT electromechanical relay (K7).

The device ensures a double insulation among each connector of the digital outputs and the remaining parts of the device.

Type 1 or type 2 actions: type 1.

Additional features of type 1 or type 2 action: C.

Displays: according to the model:

- none (blind version)
- 4+4 digits custom display (built-in LED version)
- 128 x 64 pixel single colour LCD graphic display (built-in LCD version).

Communication ports: 5 ports:

- 1 RS-485 port with MODBUS slave communication protocol
- 1 RS-485 port with MODBUS master/slave, BACnet MS/TP communication protocol (which can be set with the development environment UNI-PRO 3)
- 1 CAN port with CANBUS communication protocol
- 1 USB port
- 1 Ethernet port with MODBUS TCP, Web Server, BACnet IP communication protocol.

The actual UNI-PRO 3.13 version implements a BACnet® standardized device profile B-ASC, which doesn't require the managing of Scheduler and Calendar objects, instead required for the B-AAC profile.

CPU: 200 MHz.
RAM: 512 kB.

Program memory: 2 MB.

External FLASH: 32 MB.

Memory for Web Server: 8 MB.

Datalog memory: 8 MB.