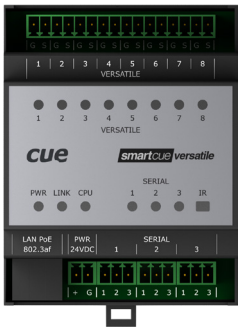
smartCUE-versatile-d

Lightweight Controller with Serial and Versatile Ports



Main Features

- Wired 10/100 BaseT LAN for CUEnet^2 system communication
- IP device control and e-mails not supported
- 3x Bi-directional serial RS-232/485 port
- 8x Versatile port
- ARM® processor platform
- Onboard real time clock
- IR code capture sensor
- Front panel indicators
- Power over Ethernet or 24 VDC power supply
- DIN rail plastic enclosure, width 4 modules
- Web server and Admin Web pages for setup

Description

The smartCUE-versatile-d is lightweight controller with eight versatile ports and three bi-directional RS-232/485 control ports. Fully compatible with CUE touch panels, this controller can work as standalone device.
Depending on the application each versatile port can be used as an input or output.
Versatile port input modes are as follows

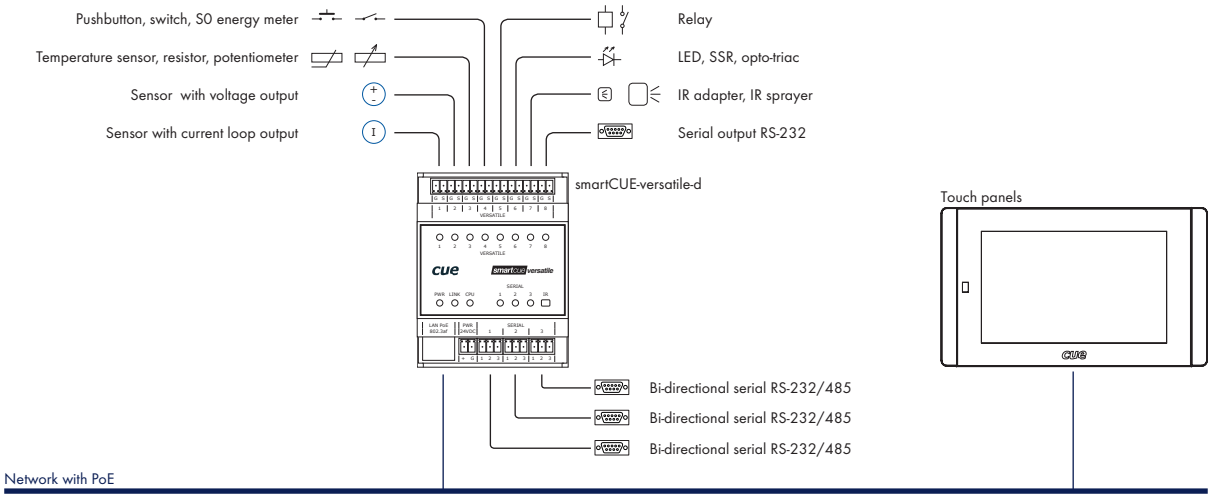
- Digital input for potential free contacts, pushbuttons, switches, digital inputs 24 V, S0 energy meter outputs, etc. In addition this mode can be used for pulse counting and digital signal frequency measurement.
- Resistance input for temperature sensors, resistors, potentiometers, etc. Standard temperature sensors Pt1000, Ni1000, NTC 12k, KTY 81-121 can be connected and allow temperature measurement with accuracy 0.5 °C.
- Voltage input for sensors equipped with voltage output.
- Current loop passive input for sensors equipped with current loop output 0 / 4 ÷ 20 mA. External resistor is needed for this mode.

Versatile port output modes are as follows

- Digital open collector for driving a relay coils, LED indicators, LED strips, etc. External voltage max. 30 V, max. load is 200 mA.
- Current-source pull-up 12 V / 10 mA for LED, opto-triac, SSR, etc.
- Current-source pull-down -12 V / 10 mA for LED, opto-triac, SSR, etc.
- IR output for IR adapters and sprayers, max. carrier frequency 500 kHz.
- Serial RS-232 output for serial controlled devices, baud rate 300 Bd ÷ 115 200 Bd (bps).

Single cable Ethernet connection provides easy network integration.
The controller is equipped with Power over Ethernet (PoE) technology enabling an Ethernet network cable to deliver both data and power. The controller installs easily on a DIN rail or on a wall.
This controller comes with a web server and allows setup through a standard web browser. Unit programming is based on CUE's standard programming tool Cue Visual Composer.

Application Diagrams



Box Contents

Controller smartCUE-versatile-d
2x IR Adapter /i
Connector set
Ethernet cable
DIN rail compatible power supply 24 VDC / 15 W
Data Sheet, Cue System Connector Wiring Sheet
Declaration of Conformity

Order Information

Product code CS0492

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smartCUE-versatile-d

Lightweight Controller with Serial and Versatile Ports

Specifications

Control ports
- 3x Bi-directional serial, 3-pin 3.5 mm connector
  - RS-232/485 modes
- 8x Versatile, 2-pin 3.5 mm connector, each port can be used as
  - Input protected to 30 VDC / -12 VDC
  - Digital input
    - Adjustable threshold
      - High sensitivity: binary 0 < 1.45 V, binary 1 > 2.05 V
      - Low sensitivity: binary 0 < 5.8 V, binary 1 > 8.2 V
    - Input impedance >100 kΩ
    - Adjustable digital filter
  - Digital pulse counter
    - Adjustable threshold and input impedance as above
    - Pulse length min. 1 ms, max. frequency 500 Hz
    - Max. number of pulses 2 147 483 647 (Long)
    - Adjustable digital filter
  - Voltage input
    - Range 0 ÷ 2.5 VDC, 0 ÷ 10 VDC, auto
    - Input impedance >100 kΩ
    - Resolution 12-bit, adjustable digital filter
    - Accuracy ±0.1 % of reading, ±0.1 % of range
    - (0.1 ÷ 10 V, digital filter applied)
  - Resistance input
    - Range 2 kΩ, 20 kΩ, 200 kΩ, auto
    - Resolution 12-bit, adjustable digital filter
    - Accuracy (digital filter applied)
      - 100 Ω ÷ 800 Ω: ±3 % of reading, ±0.1 % of range
      - 800 Ω ÷ 20 kΩ: ±0.3 % of reading, ±0.1 % of range
      - 20 kΩ ÷ 200 kΩ: ±1 % of reading, ±0.1 % of range
  - Digital output
    - Open collector
    - Max. sink current 200 mA / max. 30 VDC
    - Catch diodes for use with real load
  - Current pullup
    - Current-source pull-up 12 V / 10 mA
  - Current pulldow
    - Current-source pull-down -12 V / 10 mA
  - IR output
    - Maximum IR carrier frequency 500 kHz
    - Up to 3 original IR Adapter /i in parallel
  - Serial output
    - RS-232, serial data baud rate 300 Bd ÷ 115 200 Bd (bps)

Network
- 10/100 BaseT Ethernet , RJ-45 connector
- System communication based on CUEnet[2] only
- IP device control not supported
- E-mails not supported

Internal IR sensor
- IR code capture

LED indicators
- Blue Power - indicates power is presented and unit is ready.
- Green Link - indicates network link and activity.
- Yellow CPU - confirms the system default function is performed.
- Green Versatile - indicates output is closed.
- Yellow Versatile - indicates IR or serial data is being transmitted.
- Green Serial - indicates serial data is being transmitted.
- Red Serial - indicates serial data is being received.

Button
- System Default sets default IP address and password.

Real time and date
- RTC with battery backup

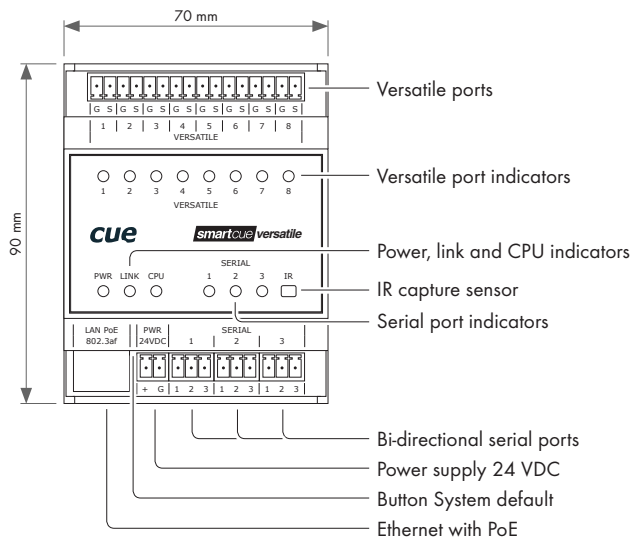
Software technologies
- Admin Web
- XPL[2] inside

Power supply
- 24 VDC (+/-20%), 3 W, 2-pin 3.5 mm connector
- Power over Ethernet, 802.3af compatible

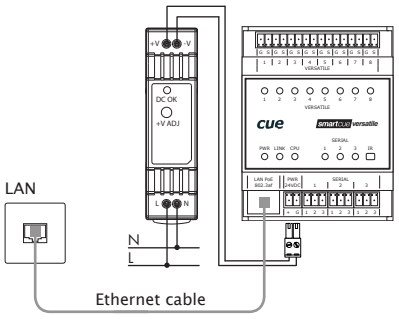
Physical
- DIN rail plastic enclosure compatible with DIN EN 50022
- Width 4 modules
- Dimensions 70 x 90 x 58 mm / 2.8" x 3.5" x 2.3"
- Weight 0.2 kg / 0.5 lb

Environment conditions
- Operating temperature 10° to 40° C
- Storage temperature 0° to 60° C
- Relative humidity 10% to 90% non-condensing

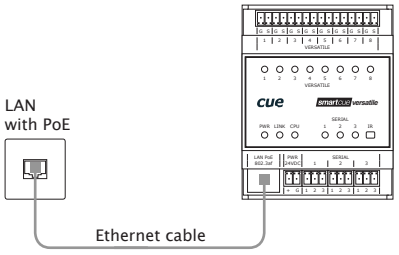
Mechanical Description



Power Supply



Delivered DIN rail power supply 24 VDC can be used for areas without PoE infrastructure.



The integrated IEEE 802.3af PoE support allows installation in areas where PoE network infrastructure is installed.