

controlCUE-knx-d

Ethernet IP Enabled Controller with KNX, Serial and Versatile Ports



Main Features

- Wired 10/100 BaseT LAN
- 1x KNX galvanically isolated control port
- 1x Bi-directional serial RS-232/485 port
- 4x Versatile port
- ARM® processor platform
- Internal RAM LPDDR 64 MB, flash 256 MB
- 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 controlCUE-knx-d is fully functional IP controller with KNX port, one bi-directional RS-232/485 port and four versatile ports. Fully compatible with CUE touch panels, this controller provides bi-directional connection between Cue System and KNX network and it can work as standalone device.

KNX port is galvanically isolated and is capable of addressing and controlling up to 250 KNX objects. No polling is necessary because the unit is capable of sending live updates.

The versatile port is a new type of control port and 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, SO 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

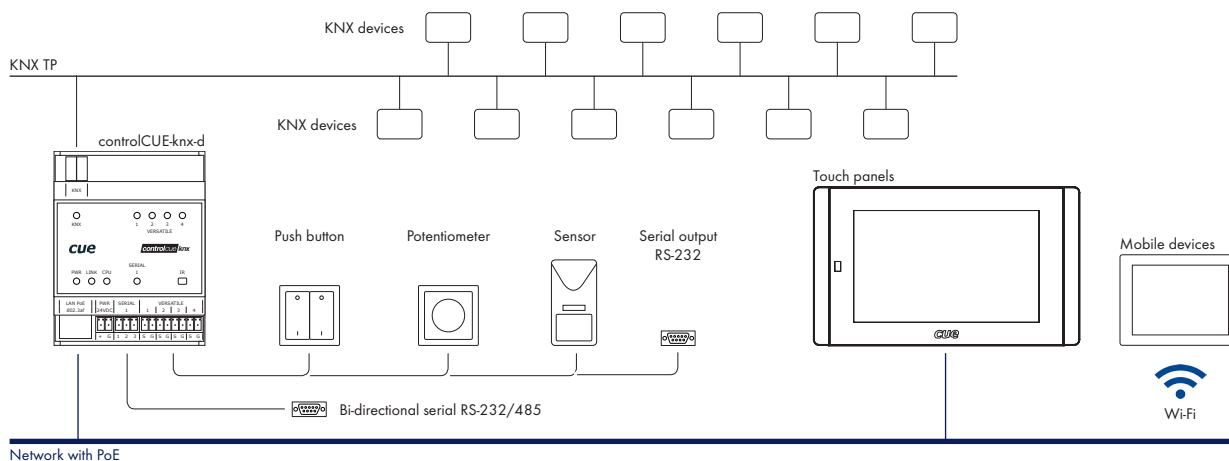
- Digital open collector for driving a relay coils, LED indicators, LED strips, etc. External voltage max. 30 V, max. load is 200 mA.
- Current-source pull-up 12 V / 10 mA for LED, opto-triac, SSR, etc.
- Current-source pull-down -12 V / 10 mA for LED, opto-triac, SSR, etc.
- IR output for IR adapters 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 complete 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 controlCUE-knx-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 CS0455

controlCUE-knx-d



Ethernet IP Enabled Controller with KNX, Serial and Versatile Ports

Specifications

Control ports

1x KNX

Power consumption from KNX bus max. 4 mA

Pluggable terminal block 2 x 4 push-wire connection, AWG 18-22

1x Bi-directional serial, 3-pin 3.5 mm connector

RS-232/485 modes

4x 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 pulldown

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)

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 / Red KNX - indicates KNX port send / receive.

Green Serial - indicates serial data is being transmitted.

Red Serial - indicates serial data is being received.

Green Versatile - indicates output is closed.

Yellow Versatile - indicates IR or serial data is being transmitted.

Button

System Default sets default IP address and password.

Real time and date

RTC with battery backup

Memory

Internal RAM LPDDR 64 MB

Internal non-volatile flash 256 MB

Software technologies

Admin Web, XPL² Inside

System communication

10/100 BaseT Ethernet, RJ-45 connector

Power supply

24 VDC (+/-20%), 3 W, 2-pin 3.5 mm connector

Power over Ethernet (PoE), IEEE 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

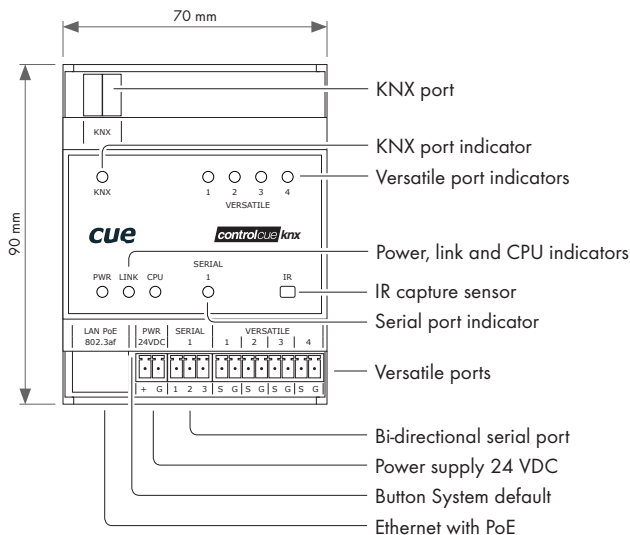
Environment conditions

Operating temperature 10° to 40° C

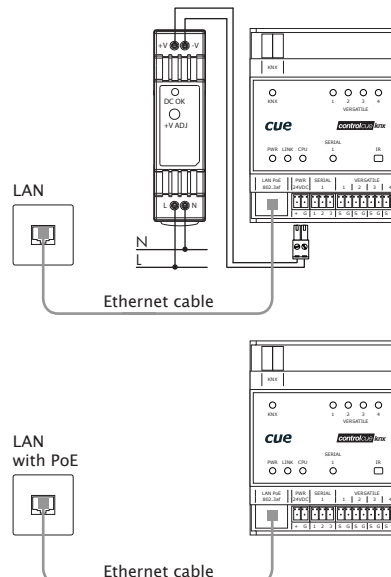
Storage temperature 0° to 60° C

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.