

ecue



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AB444200035

ecue SYMPL input Node Information for Use

Read the Information for Use and the Safety Instructions carefully. Subject to modification without prior notice.

Typographical and other errors do not justify any claim for damages. Modification of the product is prohibited.

This manual is designed for electricians, system administrators, and product users.

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Downloads and more information at:
www.ecue.com

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Table of Contents

1	Safety instructions	03
1.1	Symbols	03
1.2	General instructions	03
2	General device description	03
2.1	Delivery content	04
2.2	Product specifications	04
2.3	Connectors and interfaces	05
2.4	User interface: LEDs	05
2.5	Identify button: Identification & Reset	05
3	General remarks	06
3.1	Transport	06
3.2	Unpacking	06
3.3	Warranty regulations	06
3.4	Maintenance and Repair	06
3.5	Disposal	07
3.6	Support	07
4	Installation	07
4.1	Installation conditions	07
4.2	Mounting process	07
4.3	Ethernet connection	08
4.4	Input connection	08
4.5	Power supply	08
5	Network configuration	08
5.1	Default network properties	09
5.2	Network configuration with SYMPHOLIGHT	09
5.3	Network configuration with the web interface	09
6	Firmware Update	10
7	Dismounting	10
8	Certifications	11
9	Dimensions	11
10	Application examples	11
10.1	Sensor 0/4 ... 20 mA 2-wire	11
10.2	Sensor 0/4 ... 20 mA 3-wire	12
10.3	Dry contacts	12

1 Safety instructions

Please read the safety instructions, provided in a separate manual, carefully. Make sure that the environmental, mounting, and installation prerequisites are met. This manual should be kept at a safe place and in reach of the device.

1.1 Symbols



The exclamation mark warns about possible damage of the device itself, to connected devices, and to the user.



The information symbol gives general hints and informs about handling and procedures for use of the device.

1.2 General instructions



- Connect cables and data only when the device is powered down.
- The maximum length of each connected cable is 30 m.
- When using a power supply unit, the device must be supplied by a separate power supply that is certified according to the local regulations (e.g. SELV, Class 2).



- If safety instructions are missing, please contact Traxon e:cue to receive a new copy.

2 General device description

e:cue SYMPL Nodes are a system of interfaces for e:cue SYMPHOLIGHT only. They provide various connection types like DMX512, DALI, digital inputs and outputs etc. SYMPL Nodes always operate in online mode, as a device interface for SYMPHOLIGHT. All interactions are initiated and controlled by SYMPHOLIGHT. Connections between servers, Cores and Nodes are always made with e:net via Ethernet.

The e:cue SYMPL input Node is an eight-channel analog input interface for use with e:cue's lighting control solution SYMPHOLIGHT. It provides eight independent analog 10 V inputs, four inputs also support 20 mA constant current input, configurable with four slide switches. The e:cue SYMPL input Node can be powered by an external power supply or via Power-over-Ethernet. It is easily mounted on standard 35 mm DIN rails, or with a key hole in the housing base on walls or on any stable vertical surface. The e:cue SYMPL input Node is a simple, reliable and easy to use interface solution for e:cue lighting control solutions with SYMPHOLIGHT.



- To operate SYMPL Nodes a SYMPHOLIGHT version 2.0 or higher is mandatory. Earlier versions do not support the SYMPL Nodes. SYMPL Nodes are not supported by the e:cue Lighting Application Suite.
- Connections to the SYMPL input Node are not hot-pluggable.

2.1 Delivery content

Delivery content for the e:cue SYMPL input Node (AB444200035):

1. e:cue SYMPL input Node
2. Safety instructions
3. Welcome note

2.2 Product specifications

Dimensions (W x H x D)	53.5 x 90.5 x 62 mm/ 2.1 x 3.6 x 2.4 in (excl. fastening clip)
Weight	100 g / 0.22 lb
Power supply	24 V DC (terminal plug) wire gauge: 0.205 ... 3.31 sqmm; or PoE IEEE 802.3af on RJ-45
Power consumption	1.2 W
Operating temperature	-20 ... 50 °C / -4 ... 122 °F
Storage temperature	-20 ... 70 °C / -4 ... 158 °F
Electrical safety	SELV
Op./storage humidity	0 ... 80% non-condensing
Protection Class	IP20
Housing material	Self extinguishing blend PC/ABS UL document E140692
Mounting	on 35 mm DIN rail (EN 60715), 3 units or with key hole on any stable vertical surface
Certification	CE, ETL, UKCA

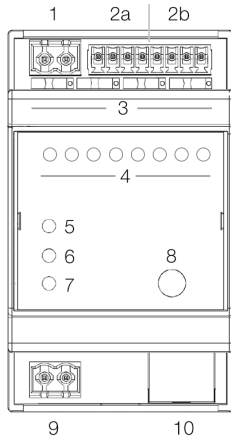
Interface specifications

Interfaces	4 x 0 ... 10 V inputs, available on pins 1 ... 8, input impedance: 40kΩ 4 x 0 ... 10 V or 0/4 ... 20 mA inputs (user configurable), available on pins 5 ... 8, set by slide switch, input impedance (shunt): 150 Ω Maximum input voltage: 12 V DC Maximum input current: 30 mA 1 x common ground connector Wire gauge: 0.08 ... 1.31 sqmm
Ethernet-Port	1 x e:net 10/100 Mbit/s, RJ-45
User interface	LEDs for error, Ethernet activity, device status, input indicators Identify button



2.3 Connectors and interfaces

View from top:



1	Common ground	„4.4 Input connection“ on page 08
2a	Inputs 0 ... 10 V (pins 1 ... 4, left to right)	„10 Application examples“ on page 11
2b	Inputs 0 ... 10 V or 0/4 ... 20 mA (pins 5 ... 8, left to right)	
3	Mode switches inputs 5 ... 8 (left: 0 ... 10 V, right: 0/4 ... 20 mA)	
4	Input status 1 ... 8 LEDs (left to right)	
5	Error LED	„2.4 User interface: LEDs“ on page 05
6	e:net LED (Ethernet, LAN activity)	
7	Status LED (Device status)	
8	Identify button	„2.5 Identify button: Identification & Reset“ on page 05
9	Power supply (Vcc+, Vcc- left to right)	„4.5 Power supply“ on page 08
10	e:net / Ethernet	„4.3 Ethernet connection“ on page 08

2.4 User interface: LEDs

The SYMPL input Node has 11 LEDs on the front panel. The 11 LEDs show the basic states of the SYMPL input Node.

LEDs

Status	On: If constantly on, the device is online. Server application is in operation. Blinking: If blinking in one second intervals, the device is offline, no connection to a SYMPHOLIGHT server or Core is available. If blinking more rapidly, the device is in bootloader mode.
e:net	Off: no link available. On: link established. Blinking: e:net traffic.
Error	Off: no error detected. On: If constantly lights in red, an error occurred. This can be an internal error or malfunction of the device, or an external error, e.g. a shortcut of interface connections or alien power supply. Switch the device off and on. If the error persists, check the wiring or contact Traxon e:cue Service.
Status + Error	The Status and Error LED blink simultaneously to identify the SYMPL Node (enabled “Identify Interface Mode” in SYMPHOLIGHT).
Input status 1 to 8	Off: Input value is smaller than the Digital Threshold Low. On: Input value is bigger than the Digital Threshold High. (Change the Digital Thresholds in the properties of the Node in the Setub Tab of SYMPHOLIGHT).

2.5 Identify button: Identification & Reset

The Identify button has two functions: to send an Identify message (A) and to reset the Node (B).

(A) A short press during operation in online mode sends an Identify message to the server. This allows the

Node of the installation to be associated with the indicated Node in SYMPHOLIGHT.

(B) The Identify button can also be used to reset the device to factory state or to stay in bootloader mode. With a reset you restore the password and other properties by using the Identify button. Please note that the device name and the offline content are not reset:

- Keep the Identify button pressed while powering up, Status and Error LEDs light up at first. Bootloader mode is signaled by a fast blinking Status LED. Release the button now. The device stays in bootloader mode to download a new firmware.
To exit the bootloader mode, short press the Identify button again.
- Press the Identify button until Status and Error LEDs blink alternating, then blink together. Releasing the button now resets the device to its factory settings. The password and other settings are reset to their default values. Please note that the Offline Content cannot be reset. To employ a reset Startup behavior, a restart of the device is required.
- Keeping the button pressed further on, the device proceeds to normal operation. No changes apply.

3 General remarks

3.1 Transport

Only transport the device in its original packaging. This protects the device from damage.

3.2 Unpacking

Only unpack the e:cue SYMPL input Node at its installation location. To protect the device against condensation water, unpack it and wait until all moisture remaining in the device has evaporated. Condensation can occur when the device is moved from a cold to a warm location. Keep the packaging for use in case of further transport. Inspect all parts for completeness regarding chapter „2.1 Delivery content“ on page 04. If there is apparent damage to the device or parts are missing from the delivery scope, please contact the Traxon e:cue support service.

3.3 Warranty regulations

Depending on the product, warranty regulations are of different duration. The warranty time is usually noted in the quote and in the order confirmation. See www.traxon-ecue.com/terms-and-conditions for details. Legal warranty regulations apply in any case.

3.4 Maintenance and Repair

This device requires no maintenance.



- Before dismounting, appropriate measures must be taken to protect the respective components against damage caused by electrostatic discharge (ESD protection).
- Do not try to repair the device. Return it to your Traxon e:cue distributor for replacement or repair.

To update the firmware see „6 Firmware Update“ on page 10.



3.5 Disposal



Batteries and technical appliances must not be disposed of with domestic waste, but should be handed in at the appropriate collection and disposal points.

The proper disposal of packing materials and of the device is the responsibility of the respective user and for his account; in all other matters, the retrieval obligation for packing materials and the device is subject to the statutory regulations.

3.6 Support

In case of technical problems or questions regarding installation and repair please contact:

Traxon Technologies Europe GmbH
 Customer Service
 Karl-Schurz-Str. 38
 33100 Paderborn, Germany
 +49 (5251) 54648-0
 support@ecue.com

4 Installation



- Connect cables and data only when the device is powered down.
- Each cable should not exceed a length of 30 m.

The installation of the SYMPL input Node consists of mounting the device, connections to analog inputs, to e:net, and to power supply.

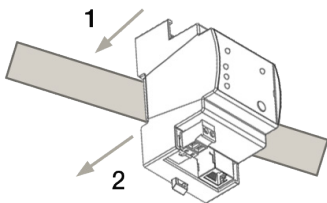
The sequence of cabling is not defined. Supply the SYMPL input Node with power after all cabling is completed; it starts booting.

4.1 Installation conditions

Installation position	Terminals on top and bottom
Horizontal spacing	No spacing necessary
Minimum vertical rail grid spacing	115 mm (90 + 25 mm) (excluding conduit)
Recommended vertical rail grid spacing	160 mm (with 40 mm conduit)
Installation location	Indoor

4.2 Mounting process

The e:cue SYMPL input Node is designed to mount onto a 35 mm DIN rail (EN 60715) in a vertical position.



1. Clip the device to the rail from top.
2. Gentle pressure is then applied to the top front to snap it in place. The SYMPL input Node has been mounted successfully.

You can also mount the e:cue SYMPL input Node on any flat vertical surface. Use 3 to 3.5 mm screws for the hanger hole.



For mechanical stability, mounting on a rail is recommended.

4.3 Ethernet connection



- Never connect more than one SYMPL Node in factory state to a network. The identical IP addresses will conflict and disturb proper communication.
- The Ethernet port of the SYMPL Node is not designed for inter-building connections with power and lighting transients. Use only intra-building networks to connect the SYMPL Nodes and Cores.

The pin-assignment of the Ethernet port corresponds to RJ45 standards. You can use every common Ethernet component, like cable. Connect the SYMPL input Node at the designated Ethernet interface with a patch cable (RJ45, CAT5).

4.4 Input connection

The SYMPL input Node provides eight independent analog 10 V inputs, four inputs also support 20 mA constant current input, configurable with four slide switches. Connect inputs to the SYMPL Node using the input pins and the common ground. Set the mode switch for the pins 5 to 8 to according to your inputs. See „10 Application examples“ on page 11 for examples.



When replacing a SYMPL input Node in an installation, set the new Node to the same mode settings as the old one. Otherwise the communication with SYMPHOLIGHT does not work.

4.5 Power supply

Connect the SYMPL input Node to a certified NEC Class 2 24 V DC power supply unit. Present power supply equates to the status “On” or running of the SYMPL Node.

To connect the device to a power supply unit, use the provided 2-pole terminal and lay the wires as stated on the front label. The voltage assignment is left V+ and right V-.

Turn the power on when all cables are connected to the SYMPL input Node. The device starts booting. The device has finished booting and is in operation when the LED Status is flashing.



The SYMPL input Node is not suited for powering over a DC power supply network. The device must be supplied by a separate power supply that is certified according to the local regulations (e.g. SELV, Class 2).

5 Network configuration

The configuration of the e:cue SYMPL input Node is completely done via e:cue SYMPHOLIGHT. See the SYMPHOLIGHT System Manual for details on configuration, available at www.ecue.com.

The network properties of the SYMPL input Node are preconfigured. The successful installation of the power supply is required for changing the network configuration. You can either adjust the network settings

with SYMPHOLIGHT or using the web interface of the SYMPL input Node.

5.1 Default network properties

The SYMPL input Node has as factory setting the default IP address 192.168.123.1.
 Subnet mask: 255.255.255.0.
 DHCP is enabled by default.

Login credentials for the web interface of the SYMPL input Node:

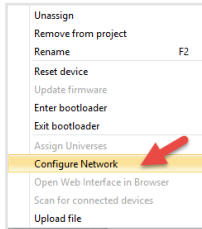
The default password is: **ecue**

To change the network configuration use either SYMPHOLIGHT or the web interface of the SYMPL input Node:

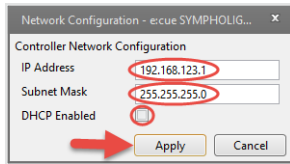
5.2 Network configuration with SYMPHOLIGHT

1. Open the context menu of the SYMPL input Node in the Setup tab of SYMPHOLIGHT by a right-click on the device.

2. Select "Configure Network":



3. Define the IP address, the subnet mask and the DHCP settings to your needs:



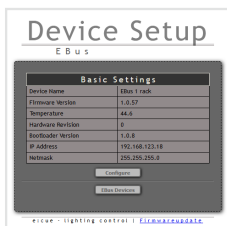
4. Click "Apply" to submit the changes.

The network configuration of the SYMPL input Node is completed.

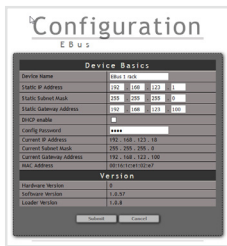
5.3 Network configuration with the web interface

1. Open a common web browser on a connected PC. Enter the SYMPL input Node's IP address into the address bar:
 e.g. <http://192.168.123.1>

The web interface of the SYMPL input Node is displayed:



- Click “Configure” to access the network configuration page:



- Define the network settings at “Device Basics” to your needs. You can also change the password for entry to the web interfaces of the SYMPL input Node here.
- Click “Submit” to apply the settings.

The network configuration of the SYMPL input Node is completed.




- The employment of a discrete network is recommended.
- Note down all employed and, if applicable, reserved IP addresses. Keep the information for future network configurations.
- You can change the login password to the SYMPL input Node’s configuration page and the device name of the SYMPL input Node at “Settings” page. Do not forget the new password.

6 Firmware Update

To update the SYMPL input Node, a connection of the SYMPL input Node to SYMPHOLIGHT is required.

Updating with SYMPHOLIGHT

Use the usual update options in the Device Tree of the Setup tab in SYMPHOLIGHT: select “Update firmware” in the context menu of the SYMPL input Node or click the Update button  in the head toolbar.

7 Dismounting



Before dismounting, appropriate measures must be taken to protect the respective components against damage caused by electrostatic discharge (ESD protection).

Disconnect all attached cables. Dismount the e:cue SYMPL input Node from the rail by pulling the black DIN rail handle and unhitching the SYMPL input Node. The dismounting is completed.

8 Certifications



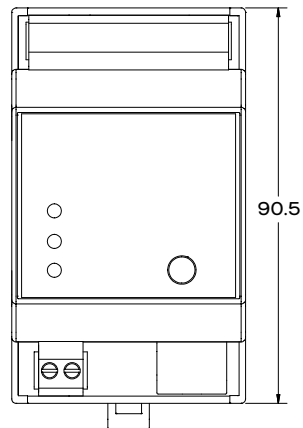
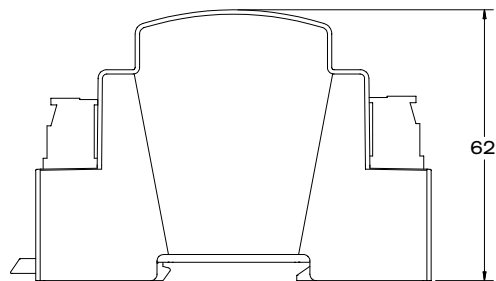
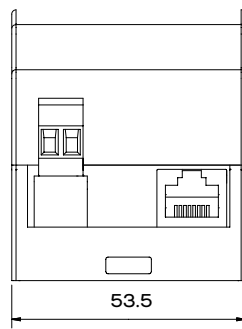
Intertek
4000805

Conforms to UL Std. 62368-1
Certified to CSA Std. C22.2 NO. 62368-1



9 Dimensions

All dimensions in mm



10 Application examples



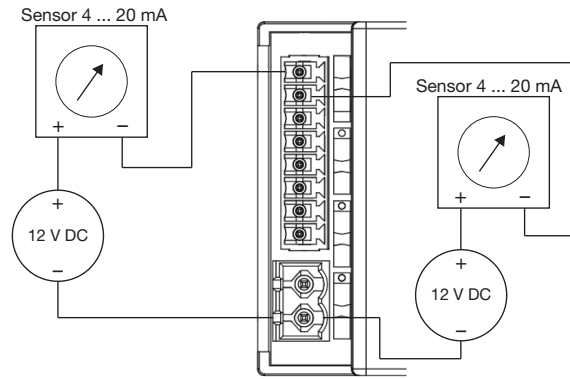
Mode switch for input set to 0 ... 20 mA.



Mode switch set for input set to 0 ... 10 V.

10.1 Sensor 0/4 ... 20 mA 2-wire

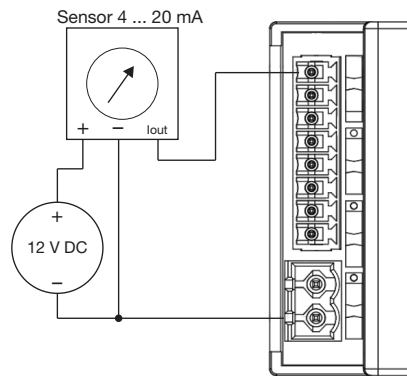
Set mode switch for input 7 and 8 to 0/4 ... 20 mA/



When connecting multiple 2-wire sensors, each must have its own power supply.

10.2 Sensor 0/4 ... 20 mA 3-wire

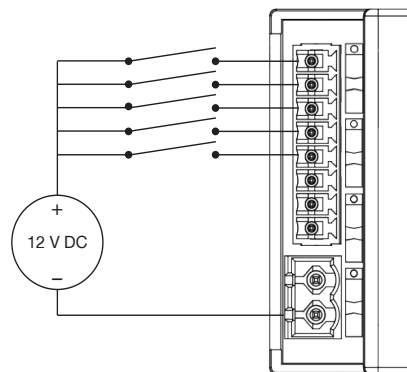
Set mode switch for input 8 to 0/4 ... 20 mA/



With 3-wire sensors, all sensors can have the same power supply.

10.3 Dry contacts

Set the according mode switches for input to 0 ... 10 V. All eight inputs are compatible with 12 V dry contacts.



The mode switches have to be set to voltage input. Otherwise the e:cue SYMPL input Node might get damaged.

