e:cue

TRAXON | e:cue
MEMBER OF PROSPERITY GROUP

AM445990055

e:cue
SYMPL pure 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.
All product names and trademarks mentioned in this manual are trademarks of their respective owners.
Except for internal use, relinquishment of the instructions to a third party, duplication in any type or form - also extracts - as well as exploitation and / or communication of the contents is not permitted.

Downloads and more information at:
www.ecue.com

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1   Security instructions

Please read and follow 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.

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

1.2   General security instructions

⚠️
— Connect cables and data only when the device is powered down.

— The device must be supplied by a separate power supply that is certified according to the local regulations (e.g. SELV, Class 2).

ℹ️
— 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 DMX/RDM, 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 SYMPL pure Node is the dedicated output device for a high amount of controllable channels. It comes with 8 x DMX universes over screw terminal plugs.

The SYMPL pure Node is especially designed for the control of medium to large size DMX installations. Within SYMPHOLIGHT the SYMPL pure Node makes it possible to run up to 4096 DMX channels (= 1360 RGB pixels, 170 pxl/universe) over Ethernet. In addition, the SYMPL pure Node provides Test modes for checking the installation.

The SYMPL pure Node is powered by an external power supply. 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.

ℹ️
— To operate SYMPL pure Nodes a SYMPHOLIGHT version 5.2 or higher is mandatory. Earlier versions do not support the SYMPL pure Nodes.

— The SYMPL pure Node does not support: LAS, RDM, new Calender App, Video/ Audio Out (SymphoMotion), Video IN, MQTT, DALI (mix of DALI and SYMPL pure Node), BACnet.

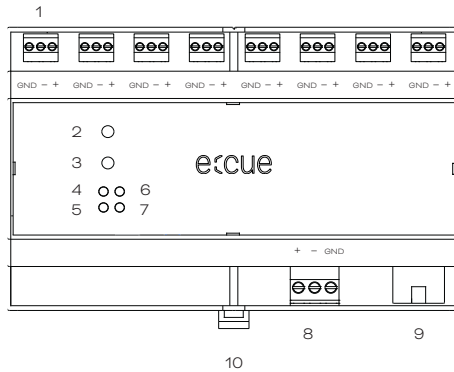— e:cue SYMPL Noes are not hot-pluggable.

2.1 Delivery content

Delivery content of the e:cue SYMPL pure Node - Product number AM445990055

1. SYMPL pure Node
2. Welcome card
3. Leaflet
4. 8 x 3-pin DMX terminal plug
5. 3-pin Power terminal plug

2.2 Connectors and Interfaces

View from top:

1	DMX ports 1 … 8 (GND, DMX–, DMX+ left to right)	"4.4 DMX connection" (page 07) "4.6 Grounding" (page 08)
2	Test button	"6.1 Test mode via Test button" (page 10)
3	Identify button	"2.4 Identify button: Identification & Reset" (page 05)
4	LED e:net (Ethernet)	"2.3 User interface: LEDs" (page 04)
5	LED DMX	
6	LED Test / Error	
7	LED Status	
8	Power supply (Vcc+, Vcc–, Earth left to right)	"4.5 Power supply" (page 07) "4.6 Grounding" (page 08)
9	e:net port (Ethernet)	"4.3 Ethernet connection" (page 06) "4.6 Grounding" (page 08)
10	DIN rail handle	

2.3 User interface: LEDs

The SYMPL pure Node has 4 LEDs on the front panel. The 4 LEDs show the basic states of the SYMPL pure Node.

LEDs

4	e:net	Off: no link available. On: link established. Blinking: e:net traffic.
5	DMX	DMX data.
6	Test / Error	Off: no error detected. Short-short-long sequence: Test mode active. On: If constantly lights in red, an error occurred. This can be an internal error or malfunction of the device. Switch the device off and on. If the error persists, check the wiring or contact Traxon e:cue Service.
7	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.
6 + 7	Status + Test / Error	The Status and Test / Error LED blink simultaneously to identify the SYMPL Node (enabled "Identify Interface Mode" in SYMPHOLIGHT).

2.4   Identify button: Identification & Reset

The Identify button has three functions: to send an Identify message (A), to reset the Node (B), and to exit the error state (C).

(A) Only available with e:net: A short press during operation in online mode sends an Identify message to the server. This helps to assign the Node in the Setup tab 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 device settings by using the Identify button. Please note that the device name is not reset:

- Keep the Identify button pressed while powering up, Status and Test / 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 during operation until Status and Test / Error LEDs blink alternating, then blink together. Releasing the button now resets the device to its factory settings. The password and network settings are reset to their default values. Please note that the device name cannot be reset.

- Keeping the button pressed further on, the device proceeds to normal operation. No changes apply.

(C) Short press the Identify button if an error occurs and you want to exit the error mode. The device will switch back to normal activity if the cause of error is eliminated. The Node might reboot.

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 device 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" (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 .

content

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

The installation of the SYMPL pure Node consists of mounting the device, connections to power supply, to e:net, and to the DMX devices.
The sequence of cabling is not defined. Supply the device with power after all cabling is completed; it starts operating.

	— Connect cables and data only when the device is powered down. — The device must be installed and operate in ambient temperature -20 ... 50 °C and non-condensing.

4.1   Installation conditions

Installation position	Terminals on top and bottom
Horizontal spacing	On both sides 18 mm
Minimum vertical rail grid spacing	115 mm (90 + 25 mm) (excluding conduit)
Recommended vertical rail grid spacing	160 mm (with 40 mm conduit)

4.2   Mounting process

The SYMPL pure Node is designed to mount onto a 35mm DIN rail (EN 60715) in a horizontal position.
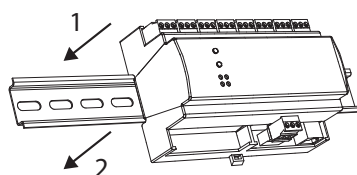
1.   Clip the device to the rail from top.

2.   Apply gentle pressure to the top front to snap it in place. The device has been mounted successfully.

You can also mount the device on any flat surface. Use a 3 to 3.5mm screw for the hanger hole.

For mechanical stability, mounting on a rail is recommended.

4.3   Ethernet connection

The pin-assignment of the Ethernet port corresponds to RJ45 standards. You can use every common Ethernet component, like cable, splitters, and switches. Connect the SYMPL pure Node at the designated

Ethernet interface with a patch cable (RJ45, CAT5).

> ⚠ — Ground the Ethernet cable for outdoor installations (optional for indoor only).

> ℹ — Never connect more than one SYMPL pure Node in factory state to a network. The identical IP addresses will conflict and disturb proper communication.

4.4 DMX connection

The SYMPL pure Node (e:pix) can control eight DMX (e:pix) universes with its eight DMX ports. Connect DMX (e:pix) devices to the SYMPL Node using 3-pin terminal plugs at the DMX interface of the SYMPL Node.

The appropriate pin assignment is defined as follows:

From left to right: GND, DMX –, DMX +
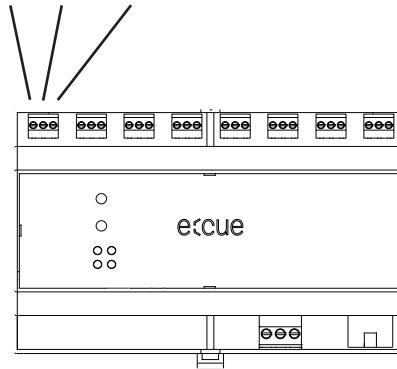
It is recommended to use twisted pair cabling.

> ⚠ — DMX cables must be shielded.
> — Ground the DMX connection cables.

4.5 Power supply

Connect the SYMPL pure Node to a 24 V DC power supply unit that complies with the local regulations. Present power supply equates to the status "On" or running of the SYMPL pure Node.

To connect the device to a power supply unit, use the provided 3-pin terminal plug and lay the wires as stated on the front label.

The appropriate pin assignment is defined as follows:

From left to right: V +, V –, GND
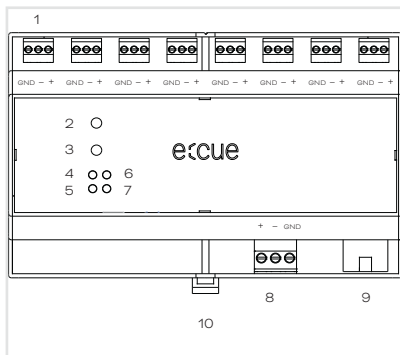
Turn the power on when all cables are connected to the SYMPL pure Node. The device starts operating. The device is in operation when the LED Status is flashing.

ℹ️ The SYMPL pure Node (e:pix) 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).
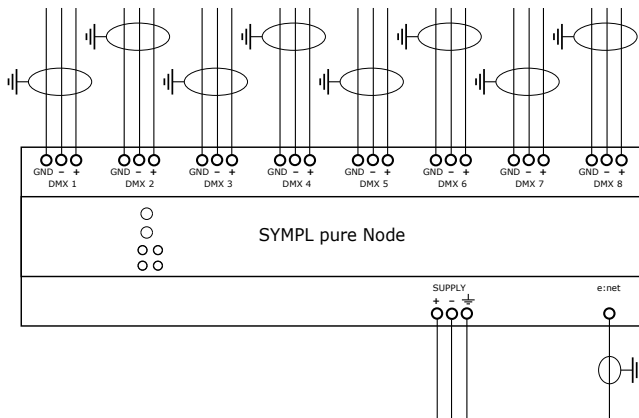
4.6 Grounding

⚠️ — Connect the SYMPL pure Node's earth clamp to ground. Keep this cable as short as possible.

— Earth does not provide personal protection, only a leakage path for a possible overvoltage on DMX.

Grounding of the SYMPL pure Node
Use earth where applicable. Ground the DMX connection cables and the Ethernet cable. Ground each cable separately.

5 Network configuration

The configuration of the e:cue SYMPL pure Node (e:pix) 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 device 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 device. Via the web interface extended DMX / RDM settings are configurable.

5.1 Default network properties

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

**Login credentials for the web interface of the SYMPL pure Node:**
The default password is: **ecue**

To change the network configuration use either SYMPHOLIGHT or the web interface of the device:
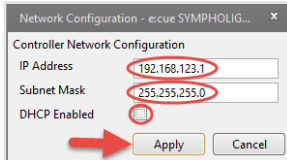
5.2 Network configuration with SYMPHOLIGHT

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

2. Select "Configure Network":
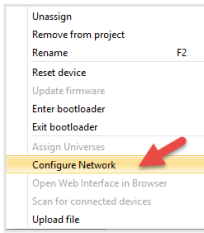
3. Define the IP address, the subnet mask and the DHCP settings to your needs:

4. Click "Apply" to submit the changes.

The network configuration of the device is completed.

5.3   Network configuration with the web interface

1. Open a common web browser on a connected PC. Enter the SYMPL pure Node's IP address into the address bar:
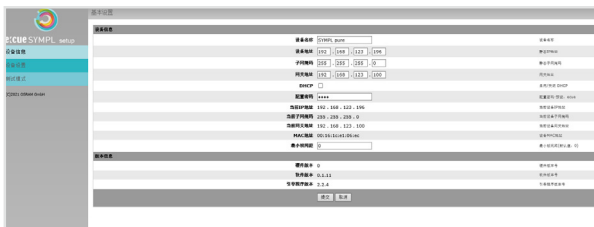e.g. http://192.168.123.1.
The web interface of the device is displayed:

2. On the left side, select "Settings" and enter the default password **ecue**:

3. Click "Apply". The Settings page is displayed:

4. Define the network settings at "Device Basics" to your needs. You can also change the password for entry to the web interfaces of the device here. Entering an empty value disables the password protection.

5. Click "Submit" to apply the settings.

The network configuration of the device is completed.

> i — 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 pure Node's configuration page and its device name at "Settings" page. Do not forget the new password.

6   Test mode

The SYMPL pure Node provides a Test mode for the connected DMX devices. The Test mode is designed for DMX luminaires. There are two kinds: using the Test button and using the web interface of the SYMPL pure Node.
Please note that the Test mode overwrites all other DMX output like running shows, Startup Setting's or Offline Setting's output for the time of testing. A running show, the Startup and the Offline output respectively are reverted to after exiting the Test mode.
The Test mode is indicated by the blinking Test / Error LED.

6.1   Test mode via Test button

The Test button allows to test the connected DMX devices directly with the SYMPL pure Node.

- Keep the Test button pressed for about 5 seconds until the Test / Error LED flashes in the short-short-long sequence and the DMX 1 LED lights constantly. Releasing the button now starts the Test mode at the DMX port 1 with blinking lights of all channels.

- Short-press the Test button each time to switch between the following test patterns:
  DMX port 2: All channels blink.
  DMX port 3: All channels blink.
  DMX port 4: All channels blink.
  DMX port 5: All channels blink.
  DMX port 6: All channels blink.
  DMX port 7: All channels blink.
  DMX port 8: All channels blink.
  All ports: All channels blink.
  All ports: All channels to 100%.
  All ports: All channels to 0%.
  Repetition, beginning from the test pattern for DMX port 1.

- To exit the Test mode at any time, keep the Test button pressed for 5 seconds. The device proceeds to normal operation. The DMX LEDs no longer flicker and the Test / Error LED is off. The last test pattern will not be exited by the device.

### 6.2   Test mode via web interface

The web interface of the SYMPL pure Node provides four different test patterns and allows to change their properties.
To access the web interface, open a common web browser on a connected PC. Enter the SYMPL pure Node's IP address into the address bar:
e.g. http://192.168.123.1.

Open the Test mode page by selecting "TestMode" on the left side of the web interface of the SYMPL pure Node:
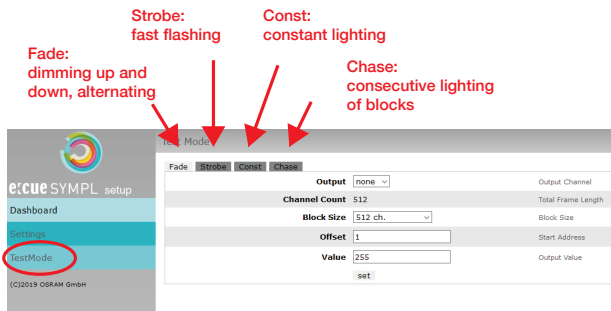
Click a button to choose a test pattern. Define the properties:

Property	Description
Output	DMX/RDM ports to run the test on.
Channel Count	Total frame length. Editable in "TestMode e:pix" on SYMPL pure Node only.
Block Size	Block size in which to step through the frame length in channel count.
Offset	Start address of the first test loop (first channel = 1).
Value	Luminance of the test output (0 - 255).
Step Time	Delay between steps. **Manual**: Press the Test button to move the block. Define the first channel at "Start Address".

Click "set" to run the test and to apply changes in the test settings.

Exit the Test mode by leaving the Test mode page, e.g. go to "Dashboard" or double-pressing the Identify button.

7 Firmware Update

To update the SYMPL pure Node (e:pix), a connection of the SYMPL pure Node (e:pix) 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 pure Node or click the Update button ⟳ in the head toolbar.

8 Dismounting

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

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

9   Product specifications

Product	Product number
SYMPL pure Node	AM445990055
Dimensions (W x H x D)	143 x 92 x 60 mm/ 5.63 x 3.6 x 2.36 in (excl. fastening clip)
Weight	250 g / 0.55 lb
Power supply input	12 ... 24 V DC (terminal plug) cable cross section: 0.205 – 3.31 mm^2 reverse polarity protection
Power consumption	max. 3.5 W (incl. DMX termination)
Operating temperature	-20 ... 50 °C / -4 ... 122 °F
Storage temperature	-40 ... 70 °C / -40 ... 158 °F
Operating / storage humidity	0 ... 80% RH, non-condensing
Protection class	IP20
Electrical safety class	SELV
Housing	self extinguishing blend PC/ABS UL E140692
Mounting	on 35 mm DIN rail (EN 60715), or with key hole on any stable vertical surface

Interface specifications

DMX interfaces	8 x DMX512 3-pin terminal plug cable cross section: 0.81 – 1.31 mm^2 isolated in pairs surge protection (level 2)
Ethernet-Port	1 x e:net 10/100 Mbit/s, RJ45
User interfaces	LEDs for Test / Error, Ethernet activity, device status, DMX status Identify button, Test button

↑ content

10 Dimensions

All dimensions in mm

143

92

48.5   60