

SYMPLE pixel Node



e:cue SYMPLE pixel Node

The SYMPLE pixel Node is a LED pixel controller, converting e:net to control a wide range of supported serial addressable LED pixels like digital LED strips, dots and boards with multi controllable pixels. Control a wide range of supported asynchronous and synchronous like SPI LED pixels and configure content with e:cue's SYMPHOLIGHT. It comes with 2 x Pixel outputs over screw terminal plugs. Choose the output protocol separately for each of the two outputs. The SYMPLE pixel Node makes it possible to run up to 2 x 2048 channels (=4096 in total, = 1364 RGB pixels). Connection to SYMPHOLIGHT runs via Ethernet interface with 100 Mbit/s. The Node is powered by an external power supply, Power-over-Ethernet, or via pass back power from the connected fixture. It is easily mounted on standard DIN rails, or with a key hole in the housing base on walls or on any stable vertical surface. Cover distances of up to 300 m* between the Node and the fixture with the optional Pixel Range Extender.

Highlights

- e:net to serial addressable LED pixel interface, with 2 x Pixel outputs
- Controls up to 2048 pixel channels per output (= 682 RGB pixels)
- Supports 512 DMX channels per output (= 170 RGB pixels)
- 3 ways of power supply: external, PoE, pass back power from the fixture
- Flexible mounting on 35 mm DIN rails
- Simple and easy integration in e:cue SYMPHOLIGHT
- Web interface for status and configuration

e:cue Interfaces

Lighting applications are heterogenous by nature. e:cue interfaces serve to integrate many networks, protocols and third party products into e:cue solutions. They also aid in applying special control functions for fixtures, they integrate analog or mechanical signaling into the digital world and offer bridging functions. e:cue interfaces are the links to bring together the many techniques and technologies of lighting control.

Delivery scope

- e:cue SYMPLE pixel Node
- Welcome note, safety instructions

Identcode

AM390290035

Optional accessories

• Power Supply 15W 24V DIN rail	AM1884100HA
• 2 x Pixel Range Extender	AM394020035
• SYMPLE Switch	AM313830035

Product specifications

Dimensions (W x H x D)	53.5 x 90.5 x 62 mm (excl. fastening clip)
Weight	100 g
Power supply input	5 ... 24 V DC pass back power from Pixel Port 1 (e.g. from Pixel Strip) or 5 ... 24 V DC terminal plug cross cable section: 0.2 - 3.3 sqmm or PoE IEEE 802.3af on RJ45
Power consumption	2 W
Operating temperature	-20 ... 50 °C / -4 ... 122 °F
Storage temperature	-20 ... 70 °C / -4 ... 158 °F
Operating / storage humidity	0 ... 80% RH, non-condensing
Protection class	IP20
Installation	Indoor installation only, intra building connections only
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

Certificates

CE, ETL, RoHS, FCC, UKCA

Interface specifications

Output connectors	2 x serial addressable LED pixel output (4-pin terminal plug) cross cable section: 0.2 - 3.3 sqmm
Output channels	Up to 2048 pixel channels per output (= 682 RGB pixels) or up to 512 DMX channels per output (= 170 RGB pixels)
Output wiring	Cable length between controller and fixture up to 3 m (with Pixel Range Extender up to 300 m*)
Ethernet-Port	1 x ethernet 10/100 Mbit/s, RJ45 for e:net, PoE
User interfaces	LEDs for Ethernet activity, device status, output activity; Identify button; web interface

*) depending on installation setup, cable quality, and fixture type.

Supported protocols

Communication protocols (input):

- e:net

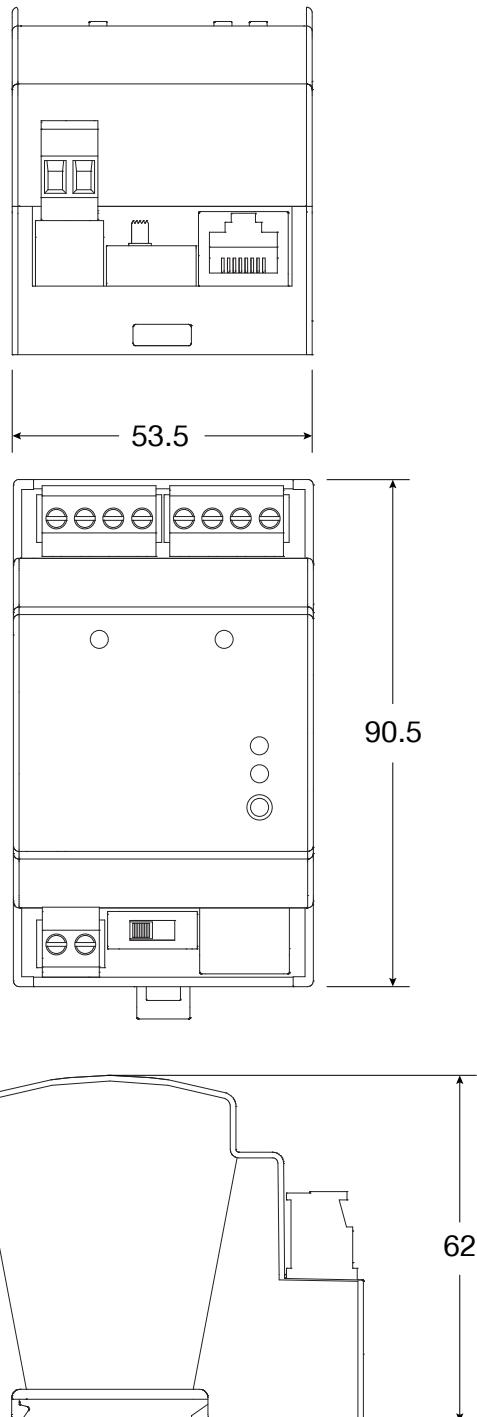
LED pixel protocols (output):

- TM1804_800
- TM1812
- APA104
- UCS2903
- UCS2904
- UCS8904A_16 bit
- UCS8903
- WS2811_800
- WS2812+b
- WS2813
- APA102+C
- WS2801
- DMX512

See www.ecue.com for all supplemented protocols.

Dimensions

All measures in mm

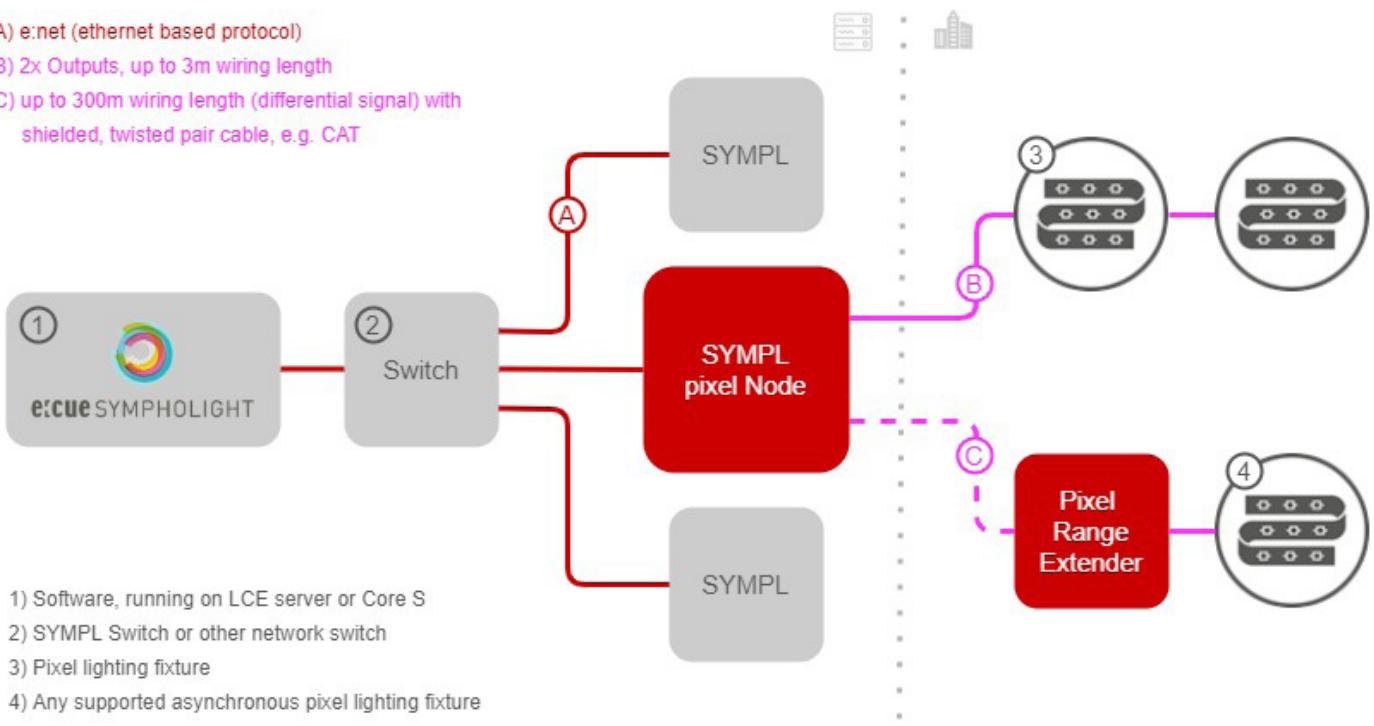


Intertek
4006376

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

System diagram

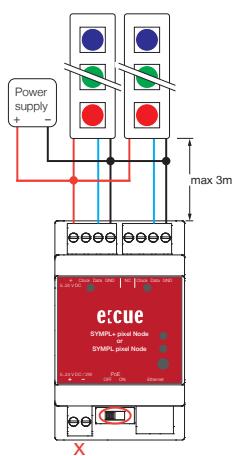
A) e:net (ethernet based protocol)
 B) 2x Outputs, up to 3m wiring length
 C) up to 300m wiring length (differential signal) with shielded, twisted pair cable, e.g. CAT



Wiring diagrams

PSU between Node and fixture, parallel connection - recommended wiring

left: One PSU supplies both fixtures and the Node via port 1 with power (+ pin, 5 .. 24 V DC). Have PoE switched OFF.



right: Each fixture has a separate PSU. The PSU for the fixture on port 1 also supplies the Node with power (+ pin, 5 .. 24 V DC). Have PoE switched OFF.

