

Genius 4CH



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The Genius 4CH is a relay controller and energy meter that combines measuring and switching load in a single device. Communication with any third party system is made via the Modbus RTU / ASCII protocol at a RS-485 interface. The Genius 4CH provides four bistable relay interfaces in single-pole, single-throw configuration, accompanied by manual switches for service overrides. It is a modular basic solution for controlling lighting installations. The Genius 4CH 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 Node is AC line powered.

Highlights

- Four bistable relay outputs SPST each for up to 20 A resistive load @ 230 V AC
- Measured data: Voltage, current, power (active, apparent, reactive), power factor, energy (active), phase, line frequency, status
- Connectivity via Modbus RTU / ASCII
- Flexible mounting on 35 mm DIN rails or surfaces

Delivery scope

- e:cue Genius 4CH
- Printed Genius 4CH Information for Use, Safety instructions
- USB A to USB Mini-B adapter cable

Identcode

AM38213003I

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.

Product specifications

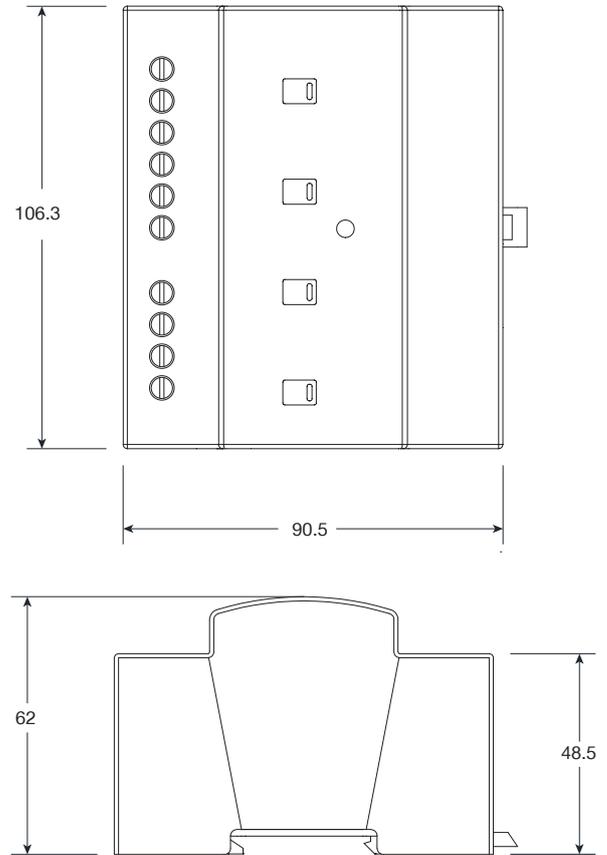
Dimensions (W x H x D)	106.3 x 90.5 x 62 mm/ 4.2 x 3.6 x 2.4 in (excl. fastening clip)
Weight	320 g / 0.71 lb
Input power	200-240V ±10% 50/60Hz AC
Power consumption	< 3 W
Operating temperature	-20 ... 50 °C / -4 ... 122 °F for > 40 °C, only use max. 2 channels up to 20 A load
Storage temperature	-20 ... 70 °C / -4 ... 158 °F
Operating / storage humidity	0 ... 80% RH, non-condensing
Overvoltage category	II
Installation conditions	IP20, not designed for outdoor use Intra-building connections only
Pollution degree	II
IEC protection class	Class II 
Housing	Self extinguishing blend PC/ABS UL document E140692
Mounting	On 35 mm DIN rail (EN 60715) or with key hole on any stable vertical surface
Certificates	CE, RoHS, UKCA

Interface specifications

Relay outputs	4 x SPST feed-through latching relay with manual override, rising cage clamp for solid and stranded wire, wire gauge: 0.05 ... 5.26 mm ² torque: 0.5 Nm Nominal voltage per channel: 115..230 V AC								
	<table border="1"> <thead> <tr> <th>Contact rating</th> <th>Cycles</th> </tr> </thead> <tbody> <tr> <td>20 A, 230 V AC resistive load</td> <td>1 x 10⁵</td> </tr> <tr> <td>4600 W, 230 V AC incandescent lamp</td> <td>3 x 10⁴</td> </tr> <tr> <td>16 A, 230 V AC electronic ballast</td> <td>6 x 10³</td> </tr> </tbody> </table>	Contact rating	Cycles	20 A, 230 V AC resistive load	1 x 10 ⁵	4600 W, 230 V AC incandescent lamp	3 x 10 ⁴	16 A, 230 V AC electronic ballast	6 x 10 ³
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Measured data	Voltage, current, power (active, apparent, reactive), power factor, energy (active), phase, line frequency, status								
Measurement tolerance	± 3 %								
Serial port	Modbus RTU / ASCII (RS-485), 3-pin pluggable connector								
USB port	1 x Mini-USB, Type B								
User interface	Combined LED for data activity and device status								

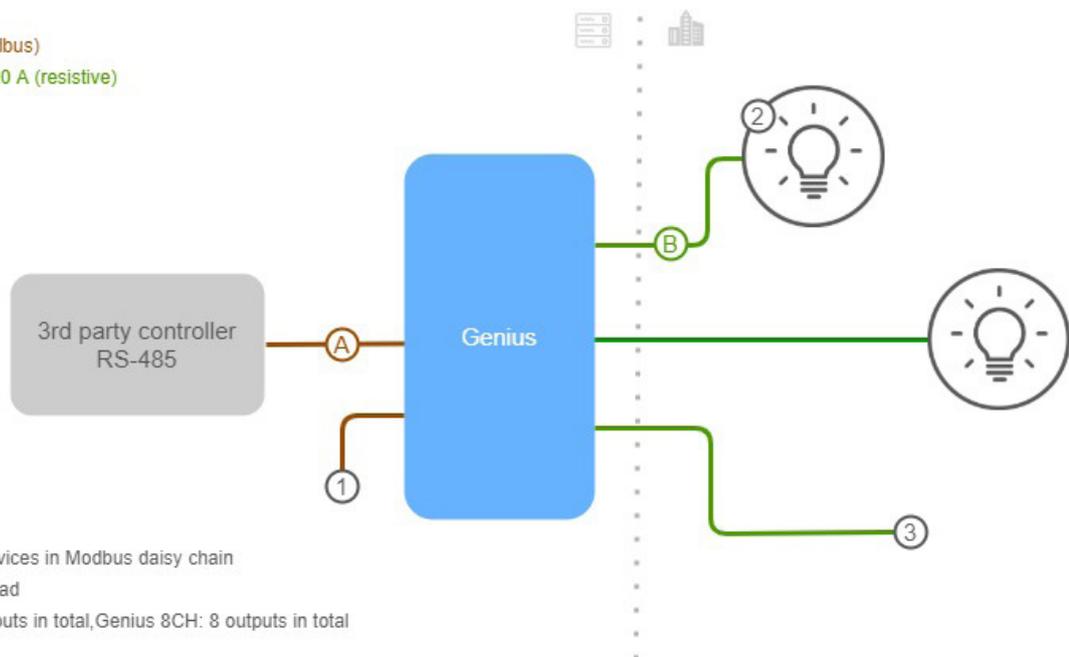
Dimensions

All measures in mm

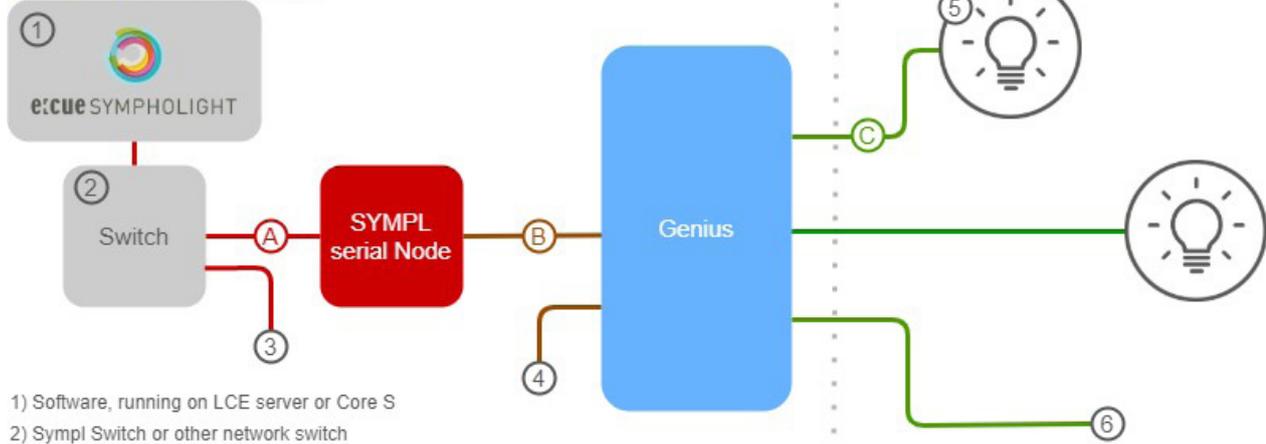


System diagrams

- A) RS-485 wiring (Modbus)
- B) 200 ... 230 V AC / 20 A (resistive)



- A) e:net (ethernet based protocol)
- B) RS-485 wiring (Modbus)
- C) 200 ... 230 V AC / 20 A (resistive)



- 1) Software, running on LCE server or Core S
- 2) Sympl Switch or other network switch
- 3) multiple other SYMPL Node
- 4) up to 32 Genius devices in Modbus daisy chain
- 5) switch / measure load
- 6) Genius 4CH: 4 outputs in total, Genius 8CH: 8 outputs in total

Wiring diagram

