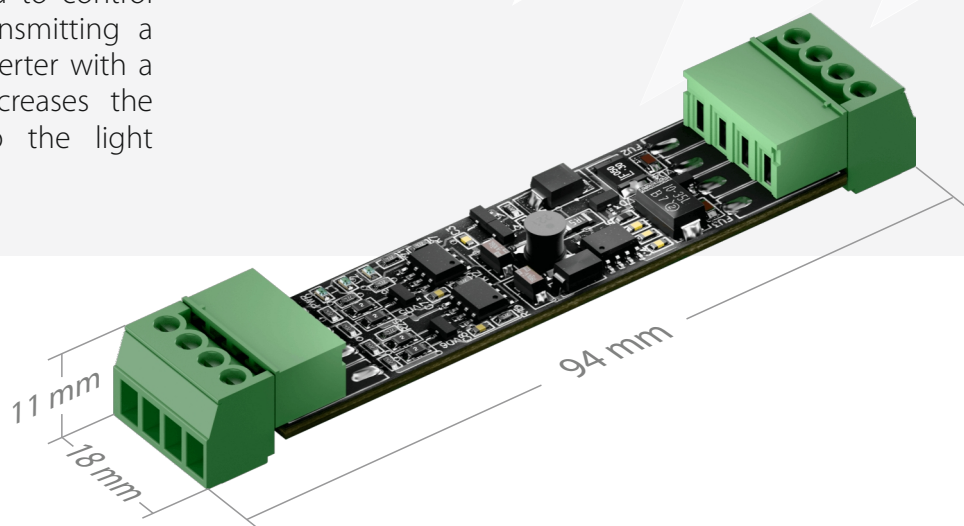# Light Stream
Extender

Light Stream Extender is designed to control light devices via SPI and by transmitting a signal from the Light Stream converter with a differential interference signal increases the distance from the controller to the light devices.

11 mm

18 mm

94 mm

Features

Long signal transmission range

The possibility of receiving a differential signal from the Light Stream Converter in interference-resistant form over long distances up to 300 meters.

Wide range of SPI signals

Supports any IC with single-wire control, such as: UCS8903, GS8206, APA104, GS8208, WS2811, Ws2812, WS2818, SK6812, UCS1903, UCS8903, TM1804 and others.

Wide temperature range

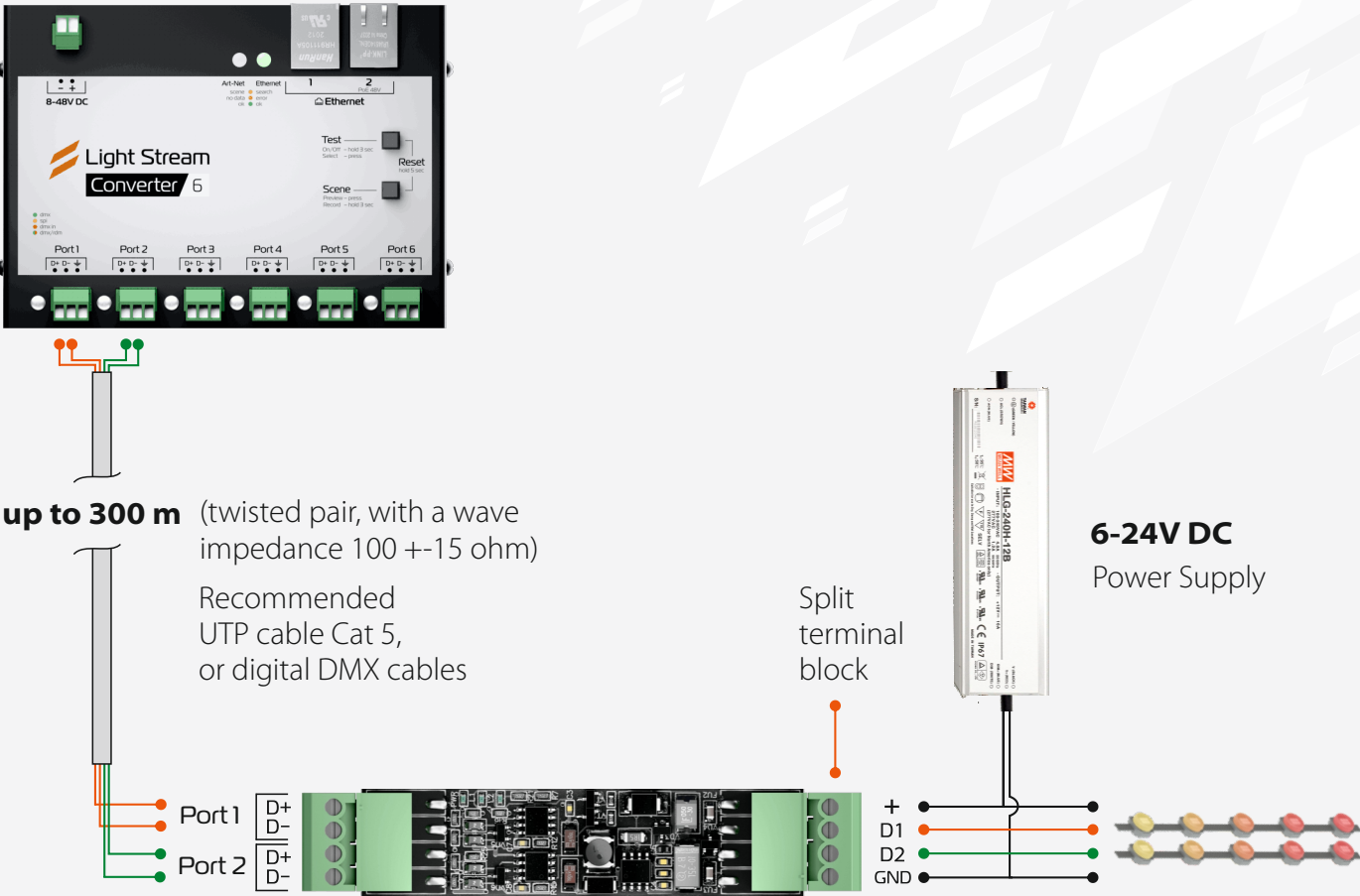The components used are designed to operate at low temperatures down to -40°C

Plug & Play

Extender does not require presetting, the Light stream Converter is responsible for selecting the signal type.

LED indicators

The device is equipped with LED indicators that indicate the presence of power, signal on line 1 or 2.

Connection diagram

up to 300 m (twisted pair, with a wave impedance 100 +-15 ohm)

Recommended UTP cable Cat 5, or digital DMX cables

Split terminal block

6-24V DC Power Supply

Port 1 D+ D-
Port 2 D+ D-

+ D1 D2 GND

Technical Specifications

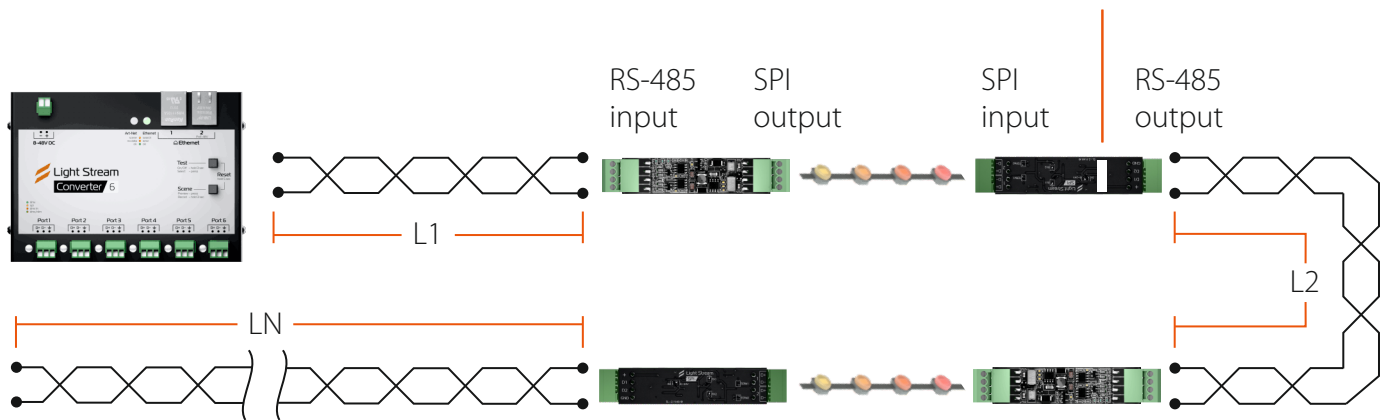| Ports	2 Inputs from Light Stream Converter 2 Output SPI for 1-wire (Data)
Number of channels per port	1 to 4 Universes DMX-512 (512-2048 channels)
Supply voltage	6-24V DC
Split terminal block	cable cross-section up to 0.75 mm^2
Temperature range	from -40 to +50°C
IP rating	IP0 (IP65 when using additional materials)

Safety

- Do not expose this unit to rain or moisture, it will void the warranty.
- Never connect this unit to a dimmer.

Certification

EAC RoHS CE FC TELEC UKCA

Connection diagram lighting devices distant from each other at a distance of more than one and a half meters

With this connection scheme, it is necessary to install a jumperbetween RX1 and RX2 for the directiontheir work. When they are closed, the direction of the RS-485 signal is > SPI. When is not closed, the signal direction SPI > RS-485.

RS-485 input   SPI output   SPI input   RS-485 output

L1

LN

L2

L1=L2=LN <= 300m