

General Description

The MDR-DIN DMX/RDM Data Distribution Splitter and Amplifier (the Product) shall be designed specifically for TS35 DINrail-mounting in permanent installations. The Product shall be an electronic device capable of providing four individual DMX512-A compatible signal outputs from a single DMX512-A compatible signal input. The Product shall also be capable of operating in an identical manner to the EIA485 communications protocol. The Product shall split and amplify the incoming signal to the four outputs without any distortion or noticeable delay.

Each output must be electrically isolated from the input and all other outputs via means of optocouplers providing a galvanic isolation barrier of no less than 1500V. All output circuits are to be short-circuit protected and filtered to approved EMI standards.

The Product shall be RDM (E1-20) compatible with each output having the ability to be individually RDM-blocked by means of a front-panel selector switch.

Power Requirements

The Product shall be powered by an external power supply providing a 9-24V DC source, connected via 2 pole push-fit terminals on the front panel. The Product shall be reverse polarity protected.

Control Requirements

All input and output connections shall be provided on the front panel to allow remote control of the Product by any of the following control signals: DMX512 (1990), DMX512-A (E1-11) and RDM (E1-20).

Standard Features

The Product shall provide but not be limited to the following:

- > Front-panel input and output connections to accept DMX512 (1990), DMX512-A (E1-11) and RDM (E1-20)
- > Inputs galvanically isolated from outputs to 1500V
- > All outputs galvanically isolated from each other, EMI-filtered and current-limited to protect against short circuits
- > Each output circuit can be labelled via RDM
- > Unit is discoverable by RDM
- > Individual selector switch for each output to disable RDM on that output
- > Fully compliant with CE and RCM regulations
- > Indicator LEDs for power, DMX and RDM activity
- > RDM proxy
- > Ability to report topology



- > Remote monitoring and configuration via Houston-X
- > Firmware upgrade via RDM

Construction

The Product shall be designed for permanent installation applications and housed in a tough ABS plastic rated to UL94-VO. The housing must provide self-contained, spring-loaded retention clips to easily mount and dismount from TS35 style mounting rails.

Overall dimensions must not exceed 88mm wide by 104mm deep by 59mm high and 160g in weight.

The front panel shall contain the power, input and the four output connections, status indicators and selector switches. Units with side entry connections will not be accepted.

[Insert appropriate rear connector option:](#)

All connections are to be made with push-fit terminals.

The Product shall be a MDR-DIN DMX/RDM Data Splitter from LSC Control Systems, model number MDRD/T.

The power input will be via 2 pole push-fit terminals and the control input and output connections via RJ45 style connectors.

The Product shall be a MDR-DIN DMX/RDM Data Splitter from LSC Control Systems, model number MDRD/J.