

Rail-Tran User Guide

(Version 2.4)

Rail-Tran provides six Darlington transistor outputs capable of operation to 50V DC at 450mA, product total 750mA. Rail-Tran is housed in a high impact DIN Rail mounting case with DMX512 and RDM Draft V1.0 support.

Rail-Tran can be used for a wide range of interface tasks including remote control of contactors, solenoid and motor drive and general animatronics.

The control interface is DMX512 (all standards) and RDM (Remote Device Management) Draft V1.0. All parameters including start address are set using RDM. This can be done using any of the following products: Jump-Start & Net-Lynx O/P or Ether-Lynx via an Art-Net network. For more information see App Note 36 & 39 at www.ArtisticLicence.com

Specification:

Input Voltage:	9-48V DC
Maximum Current:	1.5A
Internal Fuse:	500mA Electronic Fuse
Feedback Voltage:	5V to 50V
Feedback Fuse:	1A Slow Blow 20mm
Duty Cycle:	100%
Dimensions:	W:88 H:90 D:58mm
Mounting:	DIN Rail or surface mount
IP:	Indoor use only
Listings:	CE, FCC
Max Wire Size:	2.5mm ²

Power Supply Options: (order separately)

PSU-9-1.5-FER	
Output:	9V 1.5A
Input:	Auto-sensing
Max Rail-Trans:	1
Listing:	CE / FCC / UL / PSE

PSU-24-2-FER	
Output:	24V 2A
Input:	Auto-sensing
Max Rail-Trans:	2
Listing:	CE / FCC / UL / PSE



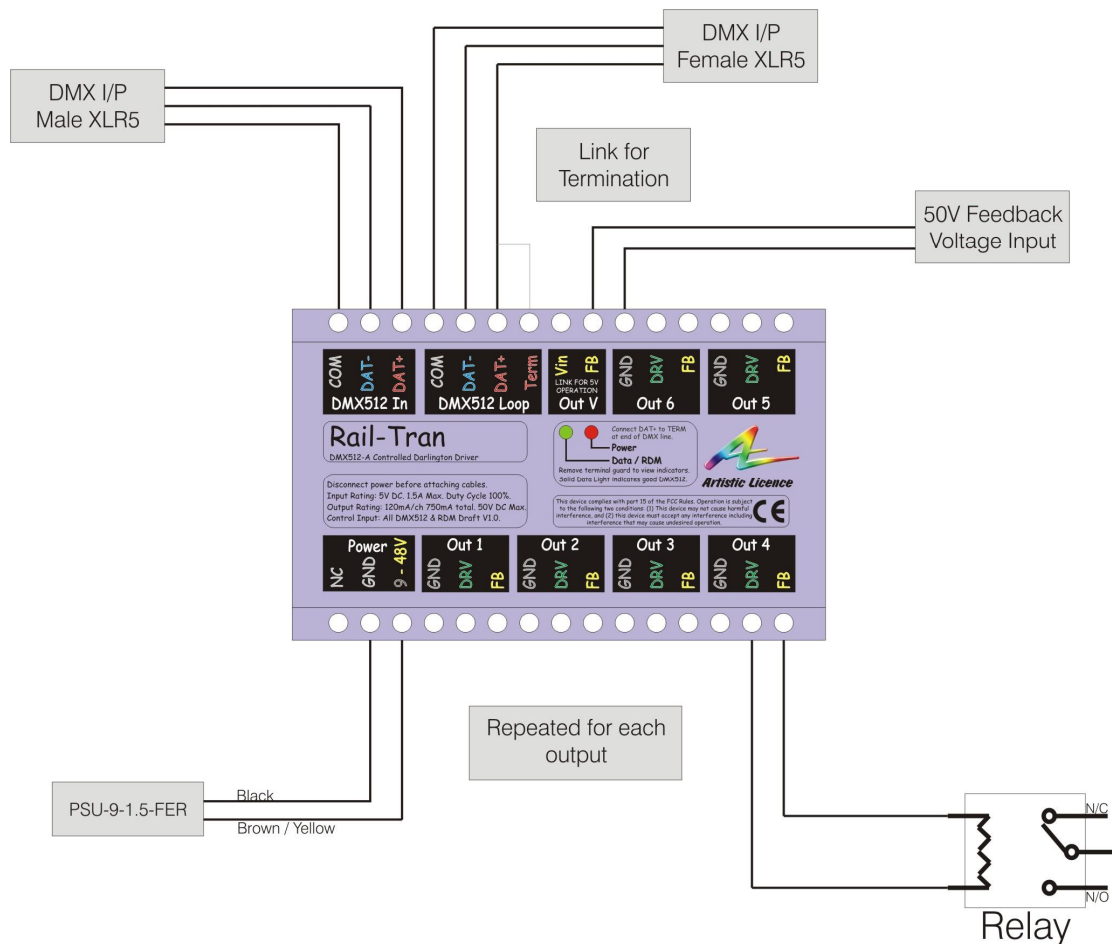
Operation:

Rail-Tran uses six DMX channels, one channel for each output. The output is energised when the level of the selected DMX512 channel exceeds 50%.

Feedback Voltage:

For convenience Rail-Tran provides a feedback voltage with each output to simplify wiring. The user can provide the feedback voltage or it can be linked to the fused input voltage.

Rail-Tran Wiring Diagram:



Note: It is recommended that wires from the PSU to the Rail-Tran have a ferrite core, or similar suppression device, fitted. This should be located close to the Rail-Tran. It is also recommended that the output wires are fitted with separate ferrite cores when driving a high current load.

Drive Output:

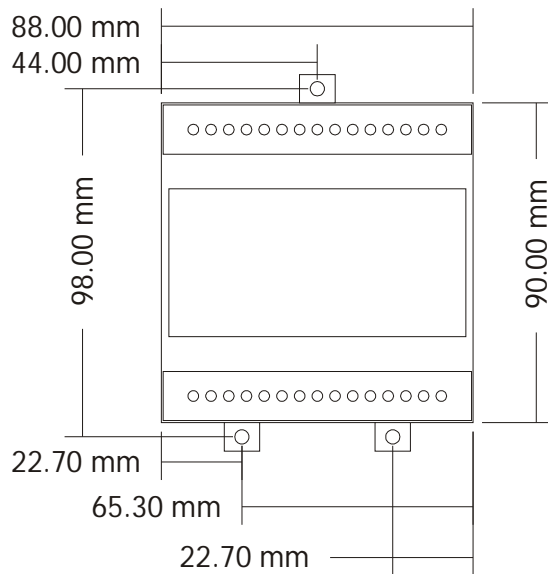
- Darlington drive
- 50V DC Current Sink
- 450mA per output maximum
- 750mA product total current drive

DMX512 Wiring:

XLR Pin (Convention)	Rail-Tran Terminals	Function	Colour
1	GND	Ground	Black
2	DAT-	Data -	Blue
3	DAT+	Data +	Red
4		No Connection	
5		No Connection	

DIN Rail Surface Mounting:

To use the surface mount option push the three bottom tabs out until they click into place. We recommend using an M4 Pan head screw.



CE Compliance

Rail-Tran is CE compliant when installed in a shielded and earthed metal case



The DIN Rail Range:

- ❑ Rail-Split RDM - A fully bi-directional six channel DMX512 splitter and distribution amplifier
- ❑ Rail-Pipe - A six channel intelligent power supply / low voltage dimmer
- ❑ Rail-Switch - Provides six mains voltage relays with DMX512 and RDM Draft V1.0 support
- ❑ Rail-Demux - Provides 16 DMX512 to analogue outputs and RDM Draft V1.0 support
- ❑ Rail-Tran - Provides six Darlington transistor outputs, operation to 50V DC at 450mA, product total 750mA
- ❑ Rail-DALI - A 256 channel bi-directional DMX / DALI interface
- ❑ Rail-Patch - A DIN Rail mounted patch panel for a 5pin XLR to screw terminal connection
- ❑ Rail-PSU-D4 - A four circuit DALI Bus PSU
- ❑ CP12 - An LED dimmer designed to control high power LED devices
- ❑ Net-Pipe - A high power Ethernet controlled LED dimmer
- ❑ Net-Switch - A 5-port Ethernet Switch with four PoE outputs
- ❑ Rail-Flip - A four universe DMX A / B switch with auto mode

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