Pathway®
Connectivity Solutions

ᴇDIN CONTACT CLOSURE INTERFACE

#1003

PRODUCT OVERVIEW

The eDIN #1003 provides DMX512 control over twelve form-C relays, for signal level switching, in a DIN-rail mountable format. Each relay may be independently wired for normally-open (NO) or normally closed (NC) operation. Field configurable through front panel or by RDM, the #1003 has nine operating modes for maximum flexibility of use.

FEATURES

- DMX512 start address and operating mode may be set from front panel interface or remotely using E1.20 RDM
- DMX512-present relay (normally open or normally closed)
- Indicator LEDs for power, processor, DMX input, and relay status
- Pluggable terminal block connections accept solid or stranded wire between #26 and #16 AWG
- Normally open or normally closed wiring option for each relay
- User-adjustable trigger threshold (default to 50%)
- One DMX512-A/RDM data input connection
- One passive DMX512-A data through connection
- Suitable as pilot relay for high voltage contactors, with adequate arc protection (by others)
- Data and power easily daisy-chained between modules
- Termination switch
- User-initiated diagnostics and test modes
- Firmware field-upgradable using RDM (requires Pathway Pathport node and RDM utility program)

SPECIFICATIONS

- Relays rated for minimum 100,00 operations at 2A at 30VDC
- 1500V opto-isolation between input and output ports
- 250V fault protection on input and output ports
- Input operating voltage: 9-30 VDC
- 6W power consumption
- Operating conditions: 0-50°C; 10-90% relative humidity, non-condensing

STANDARDS COMPLIANCE
• ANSI E1.11 DMX512-A(2008)/USITT DMX512(1990)
• ANSI E1.20 RDM(2010) - Remote Device Management
• CE/FCC
• RoHS 2002/95/EC
• Class 2 Low Voltage
WEIGHTS AND DIMENSIONS
• 0.70 lbs (0.316 kg)
• 3.6"W x 8.0"L x 1.5"H (91mm x 200mm x 38mm)
INCLUDED FURNISHINGS
• DIN tray (housing) with end caps
• 12" (300mm) x 35mm DIN rail
• Installation/Operations manual

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OPERATING MODES

- **Mode 1 : 12 Channel Maintained Control**

Each relay is maintained "on" as long as the DMX value of its associated channel is above 50% .

- **Mode 2: 12 Channel Momentary Control**

When the DMX channel for a given relay passes through the 50% threshold, either increasing or decreasing, the relay will close for 100mS.

- **Mode 3: 12 Channel Momentary "ON"**

When the DMX channel for a given relay is increasing and passes through the 50% threshold, the relay will close for 100mS.

- **Mode 4: 6 Channel Momentary Split**

Each adjacent pair of relays are associated with a single DMX channel. When the DMX level of the channel for a given relay pair passes through the 50% threshold, increasing, the lower number relay will close for 100mS. When the DMX level for a given pair passes through the 50% threshold, decreasing, the higher number relay will close for 100mS.

- **Mode 5: 6 Channel Maintained Split**

Each adjacent pair of relays are associated with a single DMX channel. When the DMX level of the channel for a given pair passes through the 50% threshold, increasing, the lower number relay will close and maintain state, while the higher number relay will open. When the DMX level for a given pair passes through the 50% threshold, decreasing, the lower number relay will open while the higher number relay will close and maintain state.

- **Mode 6: 12 Channel Momentary Split with Secondary 'Reset'**

2 sequential DMX channels are associated with each adjacent pair of relays. When the lower DMX channel increases through 50%, the lower-numbered relay will close for 100mS. When the lower DMX channel decreases through 50%, the higher-numbered relay will close for 100mS. To provide a secondary reset, when the higher DMX channel passes through 50%, increasing, the higher relay will close for 100mS. If the higher DMX channel decreases through 50%, the relays remain unchanged.

- **Mode 7: Chase**

Each relay will be triggered for two seconds. This mode is intended as a test feature, independent of the user-initiated TEST mode.

- **Mode 8: Single Channel Select**

Raising the DMX level of the start channel will maintain each relay in turn, from none up to the twelfth. At a DMX percentage between 0-8%, no relays will be triggered; a DMX percentage between 9-16% will maintain relay 1 only; a DMX percentage between 17% and 24% will maintain relay 2 only; and so on. In this mode, the Contact Closure Interface has a DMX footprint of one channel.

- **Mode 9: Single Channel Build**

Raising the DMX level of the start channel will trigger each relay additionally. At zero percent, no contact closures are trigger, while at full all twelve contact closures are triggered. At a DMX percentage between 0-8%, no relays will be triggered; a DMX percentage between 9-16% will maintain relay 1 only; a DMX percentage between 17% and 24% will maintain relay1 and relay 2; and so on. In this mode, the Contact Closure Interface has a DMX footprint of one channel.

THRESHOLD ADJUSTMENT

The relay trigger threshold may be globally adjusted (as an 8-bit value) using the UTIL mode. Valid range is between 2 and 253 (approximately 1% to 99%), with a default of 128 (50%).

APPLICATION RISER
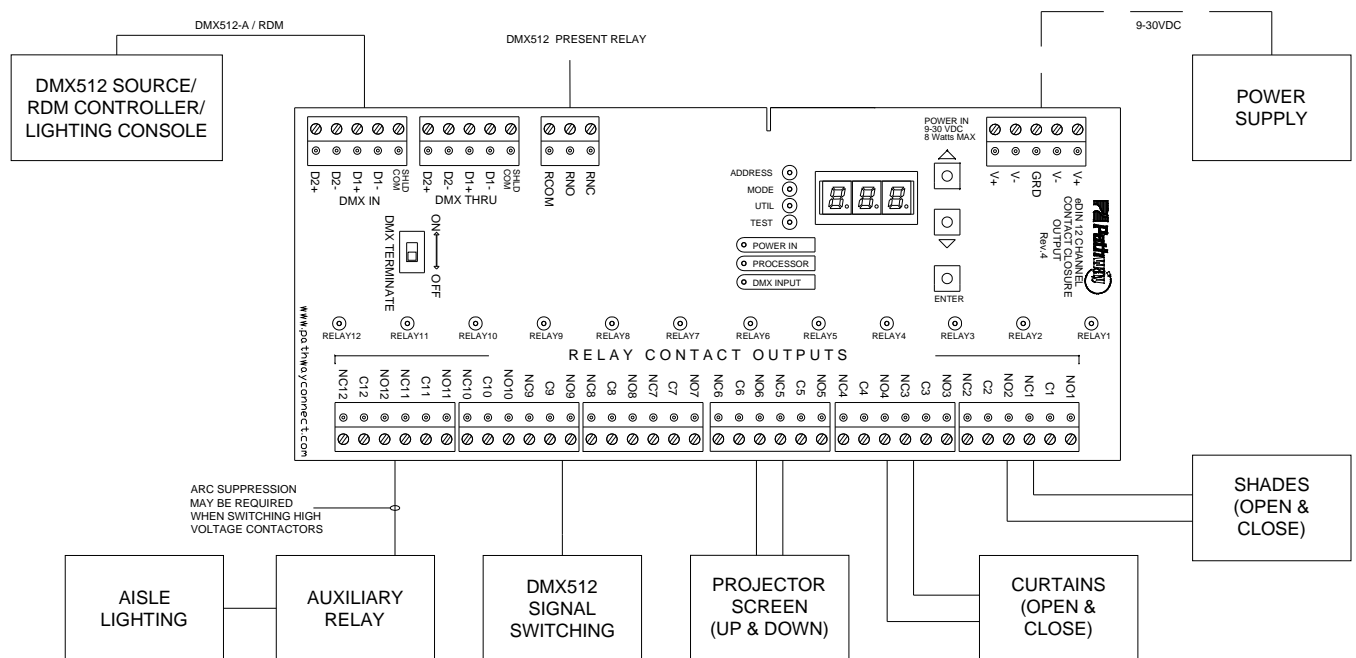
DMX512/RDM PIN OUT:

XLR PIN #	PURPOSE
1	Shield
2	Data - (complement)
3	Data + (true)
4	Data - (pair 2 complement)
5	Data + (pair 2 true)

ORDERING INFORMATION

PART #	DESCRIPTION
1003	eDIN Contact Closure Interface, 12 Channel
ACCESSORIES	
1001-30	24VDC - 30W DIN-mountable Power Supply
1103	Rack-mount Panel Kit (2RU)
1105	Small eDIN Enclosure (NEMA1) with 9.5" of vertical DIN rail space
1106	Large eDIN Enclosure (NEMA1) with 19.5" of vertical DIN rail space
1107	Large eDIN Enclosure (NEMA1) with three rows of 9.5" horizontal DIN rail space
4000	eDIN Enclosure Assembly Service