



PATHWAY CONNECTIVITY

TIP OF THE MONTH:

eDin #1003 Contact Closure

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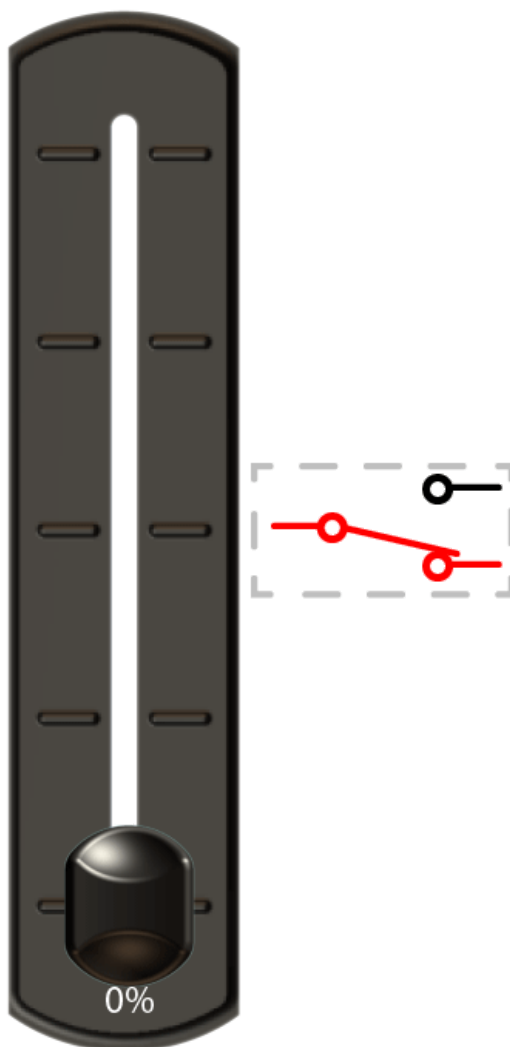
Director of Product Innovation

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The eDIN #1003 is much more than a simple DMX-controlled relay module. The specialized modes make it easy to control devices like window shades and small automation motors used in props or displays. Each relay has a normally open and a normally closed contactor (i.e. single pole, double throw) and is rated for 2 amps at 30 volts DC. Use the animations below to choose which mode is best for your application.

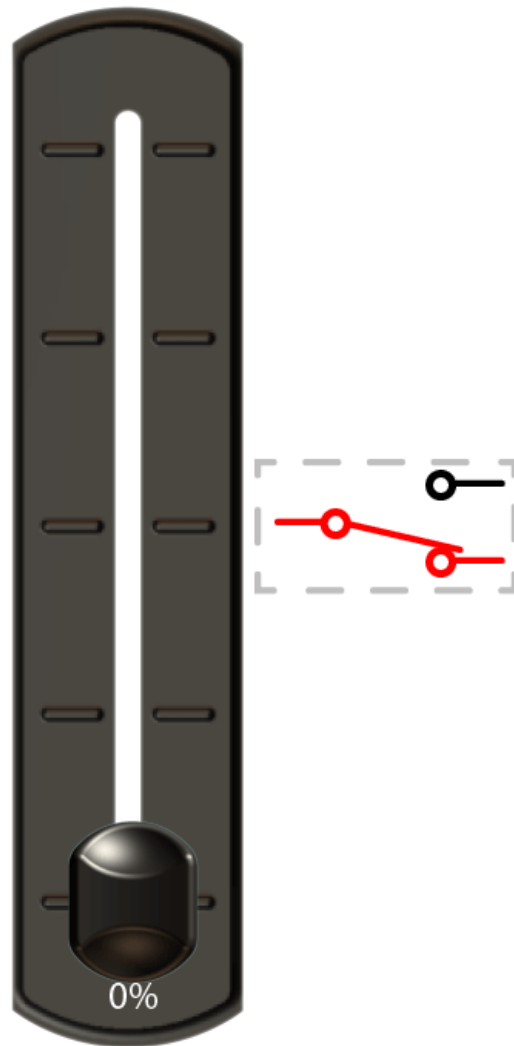
Mode 1: Maintained 12 Channel Control

Each of the 12 relays are maintained on as long as their respective DMX value is above a certain level. The default is 50%. The threshold may be adjusted to a level other than 50% with the UTIL menu option.



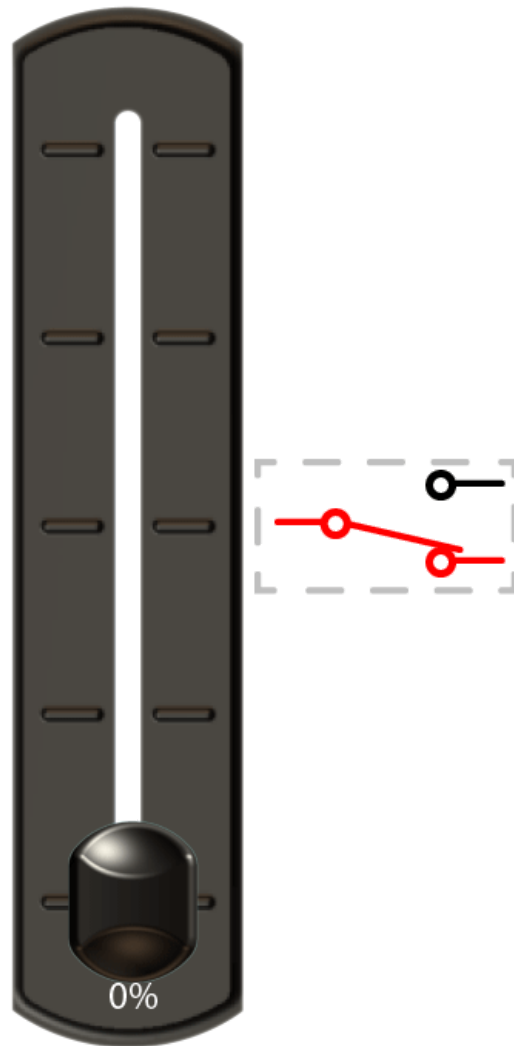
Mode 2: Momentary 12 Channel Control

Often shade controls only want a momentary press, such as someone touching a raise or lower button. When the DMX channel for a given relay passes through the 50% threshold, either increasing or decreasing, the relay will close for 250mS.



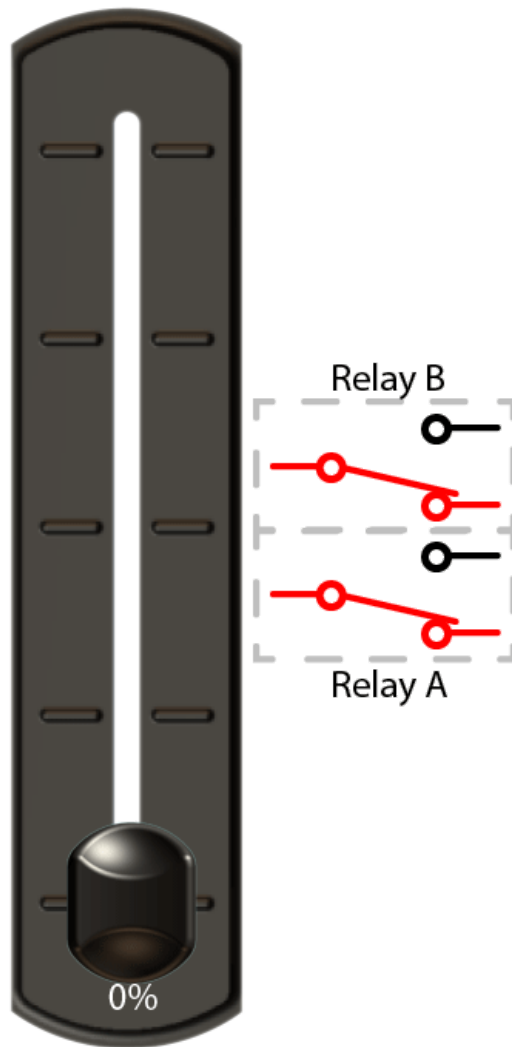
Mode 3: Momentary "ON" 12 Channel

Similar to Mode 2, but only works when the DMX level is going up. It activates the relay for a quarter second when the DMX channel is increasing and passes through the 50% threshold.



Mode 4: Momentary 6 Channel Split

This is the most common mode to control six window shades because adjacent relays are paired to a single DMX channel (1 and 2, 3 and 4, etc), one for "ON" operation, and one for "OFF". That way, one DMX channel can 'press' the UP button for the shades when going up, and the DOWN button when coming down. When the DMX level of the control channel for a given pair passes through the 50% threshold, increasing, the lower number relay will close momentarily. When the DMX level is coming down and passes through the 50% threshold, the higher number relay of the pair will close momentarily.



Mode 7: Chase

Each contact closure will be triggered in turn. This mode is intended as a test feature. Use the DMX channel controlling contact closure #1 to set the group of relays involved: 0% = no contact closures; 100% = all twelve contact closures. Use the DMX channel controlling contact closure #2 to set how long the relays are to remain closed: 0% = <10ms; 100% = 2 seconds.

Mode 8: Single Channel Select

In this mode, one DMX slot controls all 12 relays. Raising the DMX level of the start channel will trigger each contact closure in turn, from none up to the twelfth.

Trigger values are shown in the chart below. These values are also used by Mode 9.

Relay #	Decimal	Percentage
0	0	0
1	20	8
2	40	16
3	60	24
Relay #	Decimal	Percentage
0	0	0
1	20	8
2	40	16
3	60	24
Relay #	Decimal	Percentage
0	0	0
1	20	8
2	40	16

Mode 9: Single Channel Build

This mode can be handy in displays where you're adding lights as the DMX level raises. Think a segmented audio VU meter or perhaps an LED lamp where more DMX means more LEDs, hence brighter. Raising the DMX level of the start channel will trigger each contact closure additionally. At zero percent, no contact closures are triggered, while at full all twelve contact closures are triggered.

The 1003 also has a DMX Present relay to indicate when DMX is active (Normally Open contact) or absent (Normally Closed contact). You might tie all your commons through this relay if you don't want any activity when the console is not present. (Do not exceed the 3A working rating of the relay!) We'll discuss how to use DMX Present relays in detail in Tip #8.