

### 8 Channel Reinforcement Card



**Introduction and Features :**

This circuit board is specifically designed as an alternative to relays in automation systems. Hydraulic and pneumatic valves last much longer than faster switches and relays. Additionally, since it has a compact design, it takes up less space on your board. This product works with 24V and you can control loads working with 24V. This product, which has 8 channels, can deliver 5A continuous current per head. A maximum of 20A current can be drawn from the card at the same time .

**Features:**

- 8 channels High Side Mosfet output
- 5A continuous current
- Seeing active channels with LED
- Slim and compact design (46mm)
- Optical isolated inputs
- Reverse current diodes at the outputs
- N-channel or P-channel operation selection via slide switch
- Industrial design
- Easy mounting on din rail (35mm)
- Powerful cooling

**Scope of application:**

- automation systems
- Industrial applications
- machine control
- valve control,
- DC engines,
- Lighting Systems.

**Port Introduction**

Symbol	Port Definitions
V--	GND
+24V	+24V power supply
IN1-IN8	Input ports
OUT1-OUT8	output ports

**Electrical Characteristic**

Ports	Value	Tolerance	Unit
V--	0	-	V
+24V	+24	±4	V
IN1-IN8	+24/0		V
OUT1-OUT8	+24/0		V
Continuous current per channel T=25 ° C	5	5	A.

**Using DIP SWITCH**

**1. N Channel/P Channel Selection:**

In order to select the card's input signal as P channel or N channel, adjustment must be made with the slide switch . The factory setting is P channel. To set the input signal to N-channel, the P-channel pin on the slide switch must be pulled to "OFF" and then the N-channel pin must be pulled to "ON".

**2. 7+1 feature:**

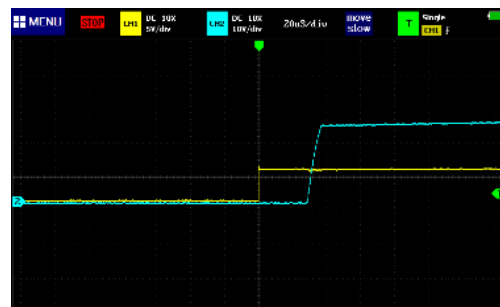
In the 7+1 feature, the output of channel 1 is controlled by the input signals of the other channels. For example, when the 4th input is active, the output of the 4th channel is active and the output of the 1st channel is also active. In this case, the output of channel 1 is active when any of the other channels are active. For this feature, which is generally used in hydraulic systems , the 7+1 pin on the slide switch is placed in the "ON" position. If the 7+1 feature is not used, it is set to "OFF". 7+1 feature is disabled by default .

**N/P Channel Value Table**

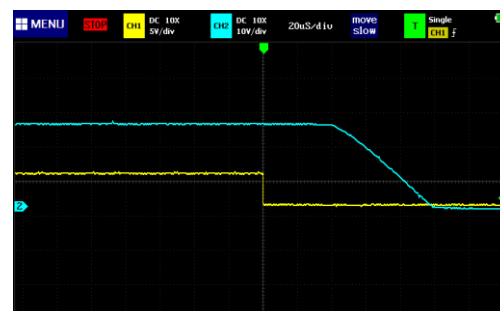
Input Signal Type	Input Value	Output Value
N channel	+24V	+24V
N channel	0V	0V
P-channel	+24V	0V
P-channel	0V	+24V

**Time Values**

Time	Value	Tolerance	Unit
$t_{don}$	38	± 5	µS _
$t_{doff}$	130	± 20	µS _



Power-on graph (Yellow line: Input Signal, Purple line: Output Signal)



Shutdown graph (Yellow line: Input Signal, Purple line: Output Signal)

**Card Dimensions**

A rail mount card holder was used to mount the card to the panel.  
 External dimensions of the card:  
 -> Width:46mm  
 -> Length: 76mm  
 -> Height: 48mm.