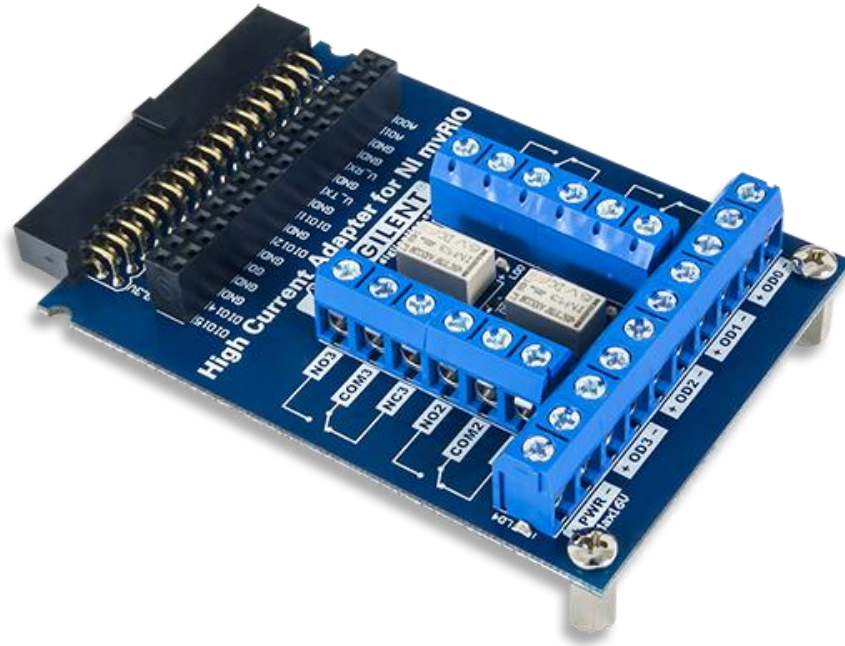# High Current Adapter for NI myRIO



## Overview

The High Current Adapter for NI myRIO allows you drive high power low speed currents using relays and open drain N-FET otputs trough MXP connector on your myRIO. The switched signals are connected with screw terminals. For open drains a power supply is needed.

Key Features:

- Supports 3V…16V power voltage(external power supply required)
- 4 Open drain outputs
    - Continuous current:3.0A(25°C)/2.2A(85°C)
    - Peak output current:4.1A(t<5s)
- 4 Standard 3 terminal relay outputs
    - Common, Normally Closed, Normally Open
    - Relay output max switching voltage:30V
    - Rated current:1A
- 34-pin female breakout allowing direct access to signal pins
- Uses the myRIO Expansion Port(MXP) connector

**Connector Pin-outs**

Relay connectors :

| Signal | Description |
|--------|-------------|
| NOx | Normal Open |
| NCx | Normal Close |
| COMx | Common terminal |

Open Drains :

| Signal | Description |
|--------|-------------|
| ODx- | Open Drain negative terminal |
| ODx+ , PWR+ | Supply voltage (internally connected) |
| PWR- | Ground |

**Using the Adapter with myRIO**

**\*Relays**\* are single side stable Normal Connected between NC and COM terminals. A logic "high" will energize the coil and the COM will be shorted to NO.

**\*Open Drains**\* connectors are meant to be used with two polarized pins/channel. The OD+ is connected to PWR positive power terminal. The OD- is equipped with transient suppression diodes to the PWR. Connect open drains power supply(+PWR-) respecting the polarity. PWR should not exceed 16VDC.

Note:If you need different supplies for different channels, assure suppression diodes to your supply voltages, especially when use inductive loads.