

Application Note APN0005 for barrier model:

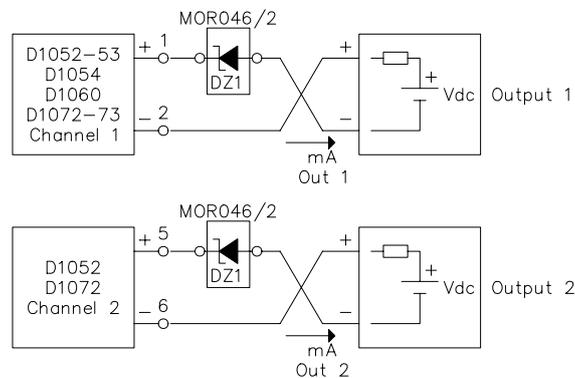
D1052S	1 channel Analog Signal Converter DIN Rail
D1052D	2 channels Analog Signal Converter DIN Rail
D1053S	1 channel Analog Signal Converter + Trip Amplifiers DIN Rail
D1054S	1 channel Repeater Power Supply + Trip Amplifiers DIN Rail
D1060S	1 channel Frequency-Pulse Converter + Trip Amplifiers DIN Rail
D1072S	1 channel Temperature Signal Converter DIN Rail
D1072D	2 channels Temperature Signal Converter DIN Rail
D1073S	1 channel Temperature Signal Converter + Trip Amplifiers DIN Rail

This application note is intended to be read and used in conjunction with the D1052, D1053, D1054, D1060, D1072, D1073 data sheet and Installation Sheet (DTS0040, DTS0041, DTS0183, DTS0162, DTS0025, DTS0043 and ISM0015, ISM0016, ISM0067, ISM0054, ISM0018, ISM0019).

Application

The Series D105*, D1060 or D107* is suitable to perform a sink current output, for connection with I/O card that drives the loop, using a special wiring configuration and a zener diode as shown in figure:

Sink Mode Output Current Connection



DZ1-DZ2 Zener Value:

Zener diode value must be 15V with 1W power rating

The barrier outputs are fully isolated each other and from supply and can be used when ground loop should be avoided. The isolation permits the connection in reverse mode to act as a sink current output. Connect the negative output of the barrier at the positive input of the I/O card and the positive output of the barrier at the cathode of the zener diode; the anode of the zener diode must be connected at the negative input of the I/O card.

G.M. International Part Number MOR046/2 is a DIN Rail terminal block with integrated zener diode that can be used to provide this feature. Simply install the terminal block onto the DIN Rail near the module and then connect the wiring. Alternatively when using the D1052 or D1072 barrier is possible to use the screw terminal block 7 and 8 to connect the zener diode and the wiring (no internal connection on this pins).