FAQ# 940-1F070

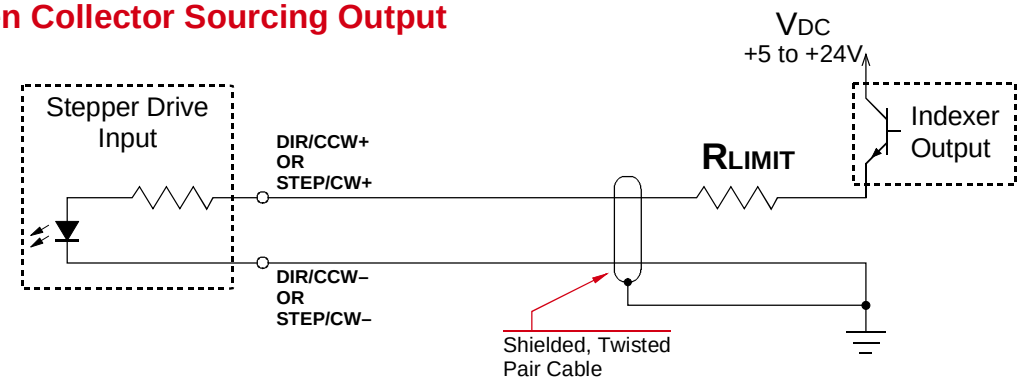
AMCI Frequently Asked Question

How Do I Wire a Single-Ended Indexer Output to an AMCI Stepper Drive Differential Input?

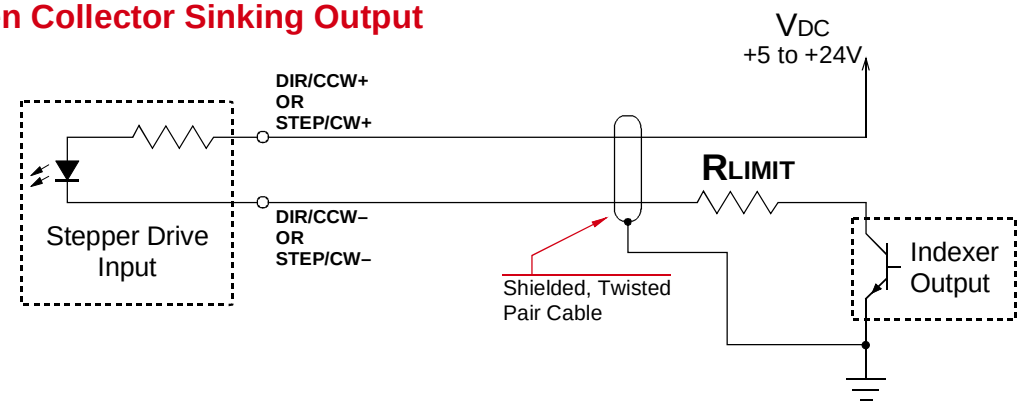
The directional inputs on AMCI stepper drives are designed to be used as +5Vdc differential inputs. However, many indexers only offer single-ended sinking or sourcing outputs that must be connected to the drive. This FAQ shows how to wire the AMCI stepper drive to interface with these indexers.

As shown in the figure below, each differential input on our stepper drives is the LED side of an optocoupler. An input can easily be wired as a single-ended input by tying the appropriate side to either ground or +Vdc and attaching the signal to the other side. If the input voltage is greater than +5Vdc, a current limiting resistor must be placed in series with the input. The figure below also includes a table that shows the appropriate current limiting resistor based on input voltage and stepper drive model number.

Open Collector Sourcing Output



Open Collector Sinking Output



	SD17063	SD3520 SD8055
VDC	RLIMIT	RLIMIT
5 Volts	None	None
12 Volts	2.0 KΩ	1.0 KΩ
15 Volts	2.0 KΩ	1.0 KΩ
24 Volts	3.9 KΩ	2.0 KΩ