FOR SD17040 DRIVES WITH 50% IDLE CURRENT REDUCTION

SD17040 Worksheet

ON 1 / 0 SWITCH SETTINGS

= Switch Not Used

SB1: 1 2 3 4 5 SB2: 1 2 3 4 5

Power Must Be Cycled When Changing These Switches

RESOLUTION (Steps per Turn)

HALF STEP (400)	0
FULL STEP (200)	1

PULSE TRAIN INPUT

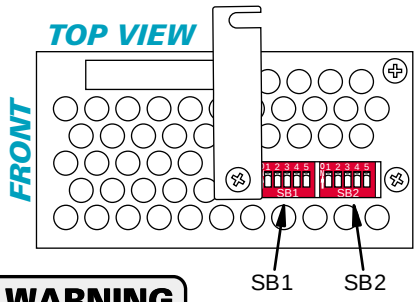
CW/CCW	0
PULSE/DIR	1

IDLE CURRENT REDUCTION

TO 0% CURRENT AFTER 1 SEC.	0	0
TO 0% CURRENT AFTER 1 SEC.	0	1
TO 50% CURRENT AFTER 1 SEC.	1	0
NO IDLE CURRENT REDUCTION	1	1

SB1	SB2	OUTPUT CURRENT (APEAK)
0 0 0 0 0		4.0
0 0 0 0 1		3.9
0 0 0 1 0		3.8
0 0 0 1 1		3.7
0 0 1 0 0		3.6
0 0 1 0 1		3.5
0 0 1 1 0		3.4
0 0 1 1 1		3.3
0 1 0 0 0		3.2
0 1 0 0 1		3.1
0 1 0 1 0		3.0
0 1 0 1 1		2.9
0 1 1 0 0		2.8
0 1 1 0 1		2.7
0 1 1 1 0		2.6
0 1 1 1 1		2.5
1 0 0 0 0		2.4
1 0 0 0 1		2.3
1 0 0 1 0		2.2
1 0 0 1 1		2.1
1 0 1 0 0		2.0
1 0 1 0 1		1.9
1 0 1 1 0		1.8
1 0 1 1 1		1.7
1 1 0 0 0		1.6
1 1 0 0 1		1.5
1 1 0 1 0		1.4
1 1 0 1 1		1.3
1 1 1 0 0		1.2
1 1 1 0 1		1.1
1 1 1 1 0		1.0
1 1 1 1 1		0.9

SWITCH PLACEMENT



WARNING

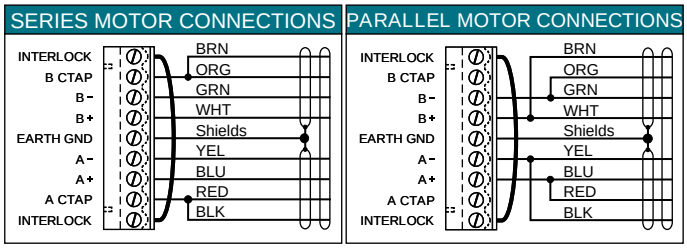
For safety reasons, DO NOT change switch settings when power is applied to the drive.

Unexpected operation may result with possible damage to equipment and/or injury to personnel.

If you decide to change settings while power is applied, DO NOT make these changes while the motor is running.

The drive requires 110Vac to operate. Both line and neutral are fused @ 10A.

MOTOR CONNECTIONS



Indexer Model: _____

Wiring – Directional Input:

❑ Differential ❑ Sinking ❑ Sourcing

Current Limiting Resistor

❑ Not Needed OR _____ ohms

Wiring – Disable Input:

❑ Differential ❑ Sinking ❑ Sourcing

Current Limiting Resistor

❑ Not Needed OR _____ ohms

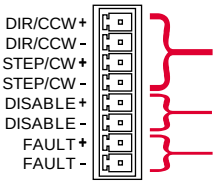
Wiring – Fault Output:

❑ Sink ❑ Source

Current Limiting Resistor

❑ Not Needed OR _____ ohms

INDEXER CONNECTIONS



Directional Pulse Inputs

Disable Input - Motor current is off when active.

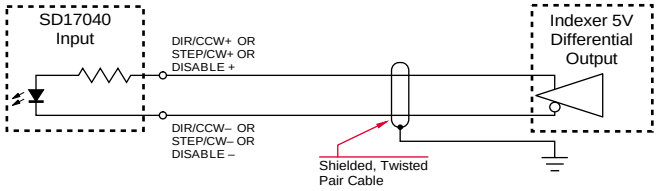
Fault Output - Normally on. Turns off when:

1) Interlock Jumper missing
2) Short in motor (phase to phase or phase to ground)
3) Heatsink temperature exceeds 90°C (195°F).

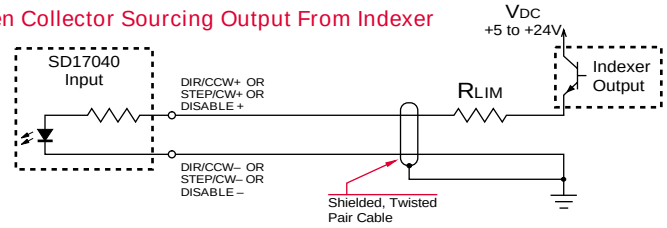
All inputs are designed to accept 5 Vdc differential signals from the indexer, but they can be wired to accept sinking or sourcing outputs of up to 24Vdc. If your indexer outputs are higher than 5 Vdc, a current limiting resistor must be installed in the circuit.

Wiring diagrams and a table of common current limiting resistor values are given below.

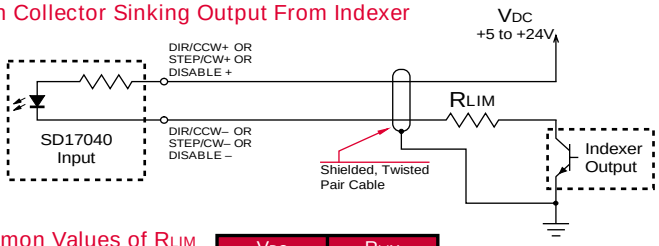
Differential Output From Indexer



Open Collector Sourcing Output From Indexer



Open Collector Sinking Output From Indexer

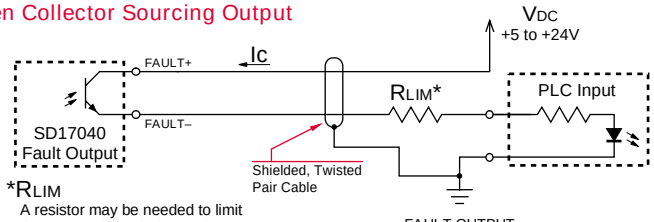


Common Values of RLIM

VDC	RLIM
5 Volts	None
12 Volts	2.0 KΩ
15 Volts	2.0 KΩ
24 Volts	3.9 KΩ

The ±Fault output is an optically isolated transistor capable of driving a typical PLC input. Both ends are uncommitted, so it can be wired as a sourcing or sinking output. The figure below shows a typical connection as a sourcing output.

Open Collector Sourcing Output



*RLIM

A resistor may be needed to limit the current through the Fault Output. The value, and power rating of the resistor is dependent on the value of VDC, the voltage drop across the input, and the current requirements of the input.

FAULT OUTPUT Electrical Specifications

VDC max.: 30Vdc
VCE$_{SAT}$: 1Vdc @ 20 mA
Ic max.: 20 mA
Power Dissipation: 20 mW max.