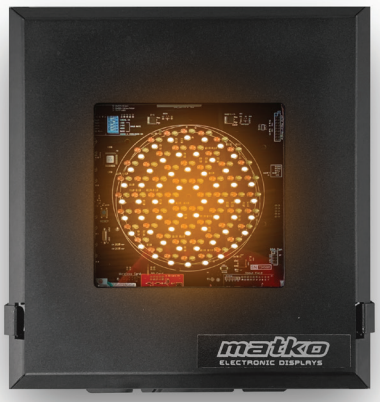
matko
ELECTRONIC DISPLAYS

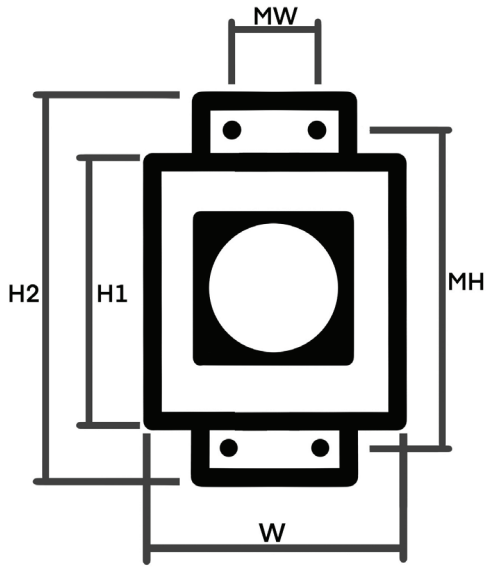


Scan for Current
Matko Manuals

SG-TRI5/SG-TRI8 Manual

Revision 1.1

Physical Dimensions



Model

Figure 1: Front Profile

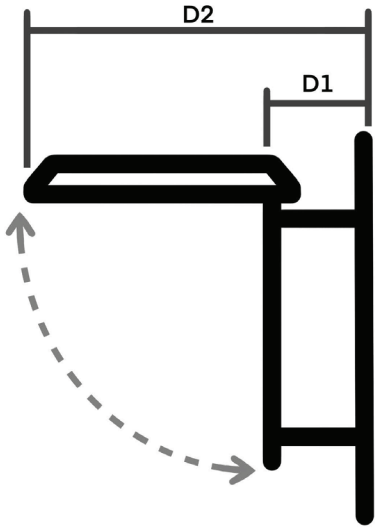


Figure 2: Side Profile

Model	W	H1	H2	H3	MW	MH	D1	D2
SG-TRI5	12.5	14	15	5	4	12	3.5	16
SG-TRI8	16	16	17	5	4	14.75	3.5	18

Stoplight

There are 4 options for controlling the stoplight.

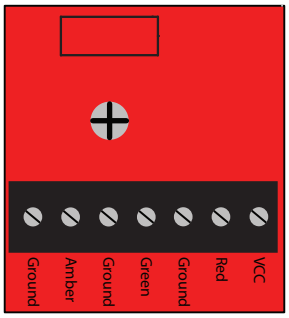


Figure 3: SSD-Card-SG

Option 1: Single Switch

Select "1 Switch" on the BLACK DIP Switch.
Connect any closed contact switch between Red and Ground. When Contact is open the light is GREEN. When contact is closed the light is RED. If the invert switch is "ON" then logic is reversed.

Option 2: Multiple Switches

Select "3 Switch" on the BLACK DIP Switch.
Each color is individually controlled by a closed contact switch. Connect one side of a closed contact switch to Ground and the other side to the color. An Open contact leaves the light off, a closed contact will turn the light on. If the invert switch is "ON" then logic is reversed.

Option 3: Proximity Detector

Select "Proximity" on the BLACK DIP Switch.
Input are typcially some type of Photoeyes.
Connect one sensor to the Red input and the second input to the Green input.
When both sensors are open the light will be GREEN.
When one sensor is open and the other closed the light will be AMBER.
When both sensors are closed the light will be RED.
If the Invert Switch is ON then the logic is reversed.

Option 4: ASCII Control

Select "SERIAL IN" on the BLUE DIP Switch. Also, select the BAUD rate 1200-9600 on the BLUE DIP Switch to match the transmitting device. Transmitting device should be 8 data bits no parity.
Baud rates outside the listed options may be used with a combination of selections.
600 Baud used when 1200 and 2400 are selected.
19200 Baud used when 4800 and 9600 are selected.
38400 Baud used when 2400, 4800 and 9600 are selected.

Wire the serial input according to Figure 4. The stoplight will examine each character received.

The lights are controlled by 1 of 4 ASCII characters. If the character is anywhere in the data stream the corresponding lights turn on/off, the lights will remain in that state until one of the other 4 characters is received.
ASCII "R" 0x52 turns the RED light on and the GREEN and AMBER lights off.
ASCII "G" 0x47 turns the GREEN light on and the RED and AMBER lights off.
ASCII "Y" 0x59 turns the YELLOW/AMBER light on and the RED and GREEN lights off.
ASCII "O" 0x4F turns all lights off.

Wiring Configuration

Connect the Transmitting device using the appropriate diagram to the **BLACK** terminal block on the Input Card (See Figure 5).

	Indicator	Pin	Display
Indicators with Active 20 mA Output	+20mA	5	RX CL (+)
	–20mA	4	RX CL (–)
Indicators with Passive 20 mA Output	+20mA	1	VCC
		2	GROUND
		4	RX CL(–)
	–20mA	5	RX CL(+)
Indicators with RS232 Output	TXD	3	232 RXD
	GND	2	GROUND
Indicators with RS422 Output	TX 422A (+)	6	RX 422A
	TX 422B (–)	7	RX 422B

JUMP

Figure 4: Wiring Diagram

The corresponding green LED will blink with every data transmission.

Data Transmission (GREEN Terminal Block)

There is a hardware echo for Current Loop on GREEN Terminal Block pins 1 and 2 as well as a hardware RS 232 echo on pins 3 and 4. Any character received through the BLACK terminal block automatically is sent out these 2 ports, allowing for a boosted signal.

***DATA RELIABILITY in the following order:**
RS422/485 (Up to 4000 feet)
Current Loop (Up to 2000 feet)
RS232 (Up to 50 feet)

Wiring Configuration

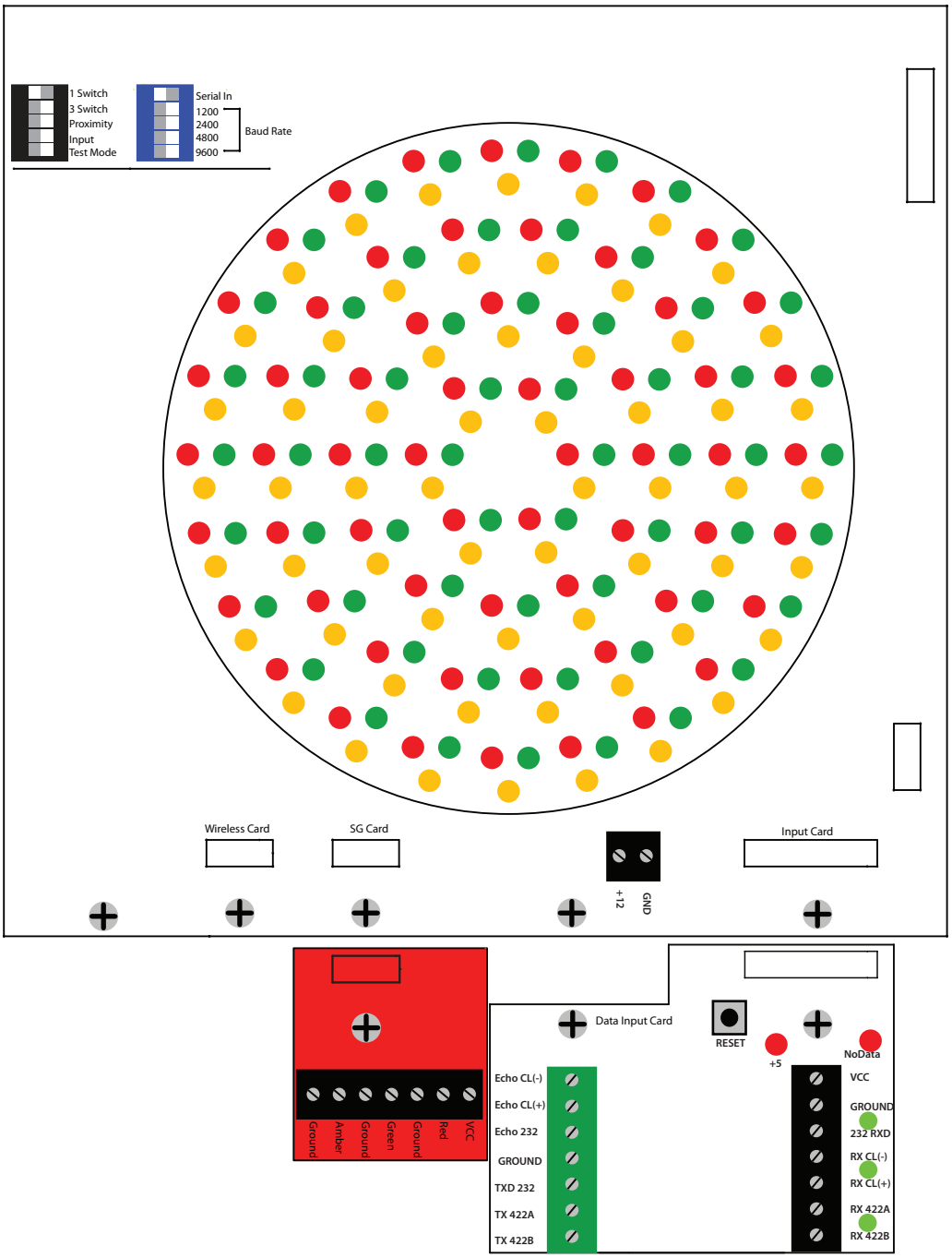


Figure 5: SG-TRI5 Internal Board Assembly