GCSA Gray Code 11 Bit Encoder

Electrical Specifications

Electrical Specifications		TRD-NAxxxxxNWD
Power Supply	Operating Voltage *	10.8–26.4 VDC
	Allowable Ripple	3% rms max
	Current Consumption	70mA max per encoder
Output Waveform	Output Code	Gray binary
	Max Response Frequency	20kHz
	Accuracy	0.087 degrees
Output	Rising/Falling Time **	2.0 µs max (@1kΩ load resistance)
	Output Configuration	NPN open collector
	Output Logic	Negative logic (active low)
	Sinking Current	32mA max
	Residual Voltage	0.4 V max @ ≤16mA 1.5 V max @ >16mA to 32mA
	Load Power Supply Voltage	35VDC max
	Short Circuit Protection	Not protected

* To be supplied by a class II source.
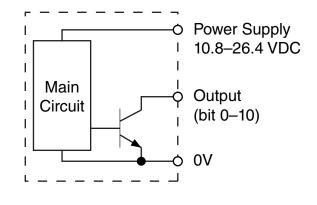** With a Cable of 2m or less.

GCSA Smart Arms

Wiring Connections

Wire Color	Wiring Connection
Blue	0V
Brown	12/24V
Black	Bit 0 (2^0)*
Red	Bit 1 (2^1)*
Orange	Bit 2 (2^2)*
Yellow	Bit 3 (2^3)*
Green	Bit 4 (2^4)*
Purple	Bit 5 (2^5)*
Gray	Bit 6 (2^6)*
White	Bit 7 (2^7)*
Black/White	Bit 8 (2^8)*
Red/White	Bit 9 (2^9)*
Orange/White	Bit 10 (2^{10})* (MSB)
Shield	GND**

* Numbers in parentheses ( ) are the bits corresponding to binary code.

** Cable shield is not connected to the encoder body; the enclosure is grounded through the 0V wire.

Output Circuit

Power Supply
10.8–26.4 VDC

Main Circuit

Output
(bit 0–10)

0V