

V8 Encoder Data Sheet

Electrical Specifications

Input Voltage	5 VDC +/- 5%
Input Current Requirements	125 mA Typical @ 5 VDC Plus Interface Loads
Input Ripple	2% Peak to Peak @ 5 VDC
Output Circuits	AM26LS31 RS 422A Line Driver
Frequency Response	500 kHz
Incremental Output Format	Quadrature with A leading B for CW rotation. Index Pulse centered over A.
Symmetry	180 Degrees +/- 10% Typical
Minimum Edge separation	54 electrical degrees
Commutation Format	N/A
Commutation Accuracy	N/A

CAUTION:

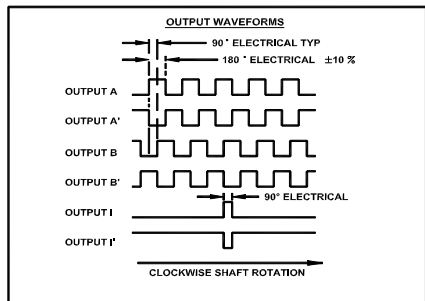
1. If another connector is to be used cut each wire individually and use caution to avoid static discharge

Environmental Specifications

Storage Temperature	-40 to 125° C
Operating Temperature	-20 to 100° C Typical
Humidity	98% Non-Condensing
Vibration	20 G's @ 50 to 500 CPS
Shock	50 G's @ 11 ms duration

Mechanical Specifications

Line Count	5000 lines/revolution
Maximum Shaft Speed	8000 RPM
Through Shaft Diameter	0.250" (-0.0000", +0.0005")
Radial Shaft Movement	0.007" TIR
Axial Shaft Movement	+/- 0.030" MAX
Housing	Carbon Fiber Composite (case ground via cable)
Termination	15 conductor cable, 28 AWG, 18" long
Mounting	1.812" Bolt Circle
Moment of Inertial	1.5×10^{-4} oz-in-s ²
Acceleration	1×10^5 Radians/s ²
Accuracy	+/- 1.0 Arc Minutes



Physical Dimensions of "V" series Bearing Encoders are the same as "Q" series Bearing Encoders but also include a custom mount needed for mounting to AB23000 Series and IB17000 Series motors.

ENCODER CONNECTIONS	
COLOR	FUNCTION
RED	+VDC
BLACK	COMMON
BROWN	OUTPUT A
WHITE	OUTPUT A'
BLUE	OUTPUT B
GREEN	OUTPUT B'
ORANGE	OUTPUT I
YELLOW	OUTPUT I'
BLACK/WHITE	CASE GROUND
DRAIN WIRE	CABLE SHIELD