

Incremental & Absolute Double Output EAD58

Application

Incremental & absolute double output encoder EAD58 series, used in special industry environment, has perfect anti-mechanical damage ability, and can afford higher axial & radial load. The electrical design realizes not only the absolute length measurement and fixing position, but also the incremental speed measurement. Compatible with most of the controllers.



Characteristics

- Pre-screw hole convenient for installation
- Water proof seal promotes IP level
- stainless steel
- Protect level IP64
- Metal crust, perfect anti-shock ability
- Waterproof output cable, convenient for mounting and maintenance
- Incremental & absolute double output

Mechanical Characteristics

Hollow Shaft (mm)	Φ10g6
Protection acc. to EN 60 529	IP64
Speed (r/m)	6000
Max load capacity of shaft	
Axial load capacity	60N
Radial load capacity	120N
Shock resistance	50G/11ms
Vibration resistance	10G 10~2000Hz
Bearing life	10 ⁹ revolution
Rotor moment of inertia	1.8×10 ⁻⁶ kgm ²
Starting torque	<0.01Nm
Body material	AL-alloy
Housing material	AL-alloy
Operating temperature	-20 °C~~+80 °C
Storage temperature	-25 °C~~+85 °C
Weight	370g

Provided Resolution:

Parallel (gray) resolution: 2, 4, 8, 16, 32, 64, 128, 256

Incremental resolution: 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024

Electrical Characteristics

Output Circuit	Parallel	Parallel	Interface type(incremental)	Line driver
Output driver	NPN/NPN collector open/PNP/PNP collector open	Output driver		RS422
Resolution	10 Bits	10 Bits	Resolution	1024ppr
Supply voltage (Vdc)	5V	10-30V	Supply voltage (Vdc)	5V
Power consumption (no load)	≤200mA	≤200mA	Current consumption (no load)	≤150mA
Permissible load/channel	±20mA	±20mA	Permissible load/channel	±40mA
Pulse frequency	Max 40kHz	Max 40kHz	Transmission rate	Max 40kHz
Signal level high	Min 3.4V	Min Ub-2.8V	Signal level high	Min 3V
Signal level low	Max 0.5V	Max 2.0V	Signal level low	Max 0.5V
Rise time Tr	Max 0.2μs	Max 1μs	Rise time Tr	Max 0.2μs
Fall time Tf	Max 0.2μs	Max 1μs	Fall time Tf	Max 0.2μs

*):NPN open collector is depended on pull-up resistor, 4.7kΩ for recommended resistance , 8.2kΩ for PNP open collector recommended resistance.

**):NPN(PNP) open collector is depended on pull-up(down) resistor and cable length.

Overview

General

Absolute

Easydyc
Incremental

Topdc
Incremental

Heavydc
Incremental

Ex-proof

Special
Temperature

Adapter and draw
wire mechanics

Accessories

Incremental & Absolute Double Output EAD58

Terminal Assignment

Absolute

Signal	0V	+U _b	bit0	bit1	bit2	bit3	bit4	bit5	bit6	bit7	bit8	bit9	V/R *
Color	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY/PK	RD/BU	YE/BN
Gray	/	/	0	1	2	3	4	5	6	7	8	9	-

Incremental

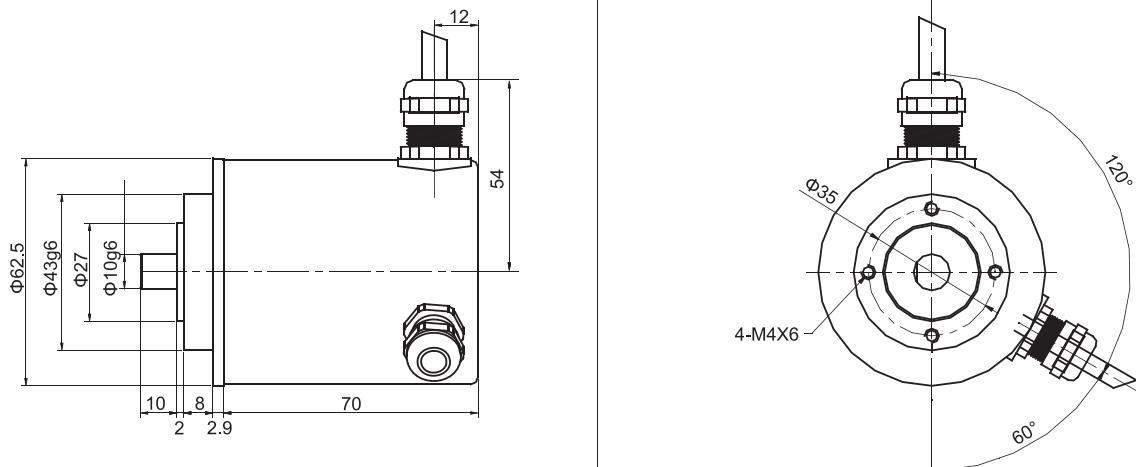
Signal	0V	+U _b	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	+

Attention:

Bite definition of parallel interface for absolute encoder: bit0=MSB,bit1=MSB-1,bit2=MSB-2,

Dimensions

EAD58



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Order Code:

EAD 58 A 10 - G N6 N PC R - 256 + L5 P R - 1024

Shaft Diameter 10=Φ10mm	Outlets direction R=radial	Resolution ≤1024																
Flange Type A=Φ43 clamping flange, shaft length 10mm	Type of connection PC=standard cable standard length 1.5m	Type of connection P=standard cable standard length 1.5m																
Housing Diameter 58=Housing diameter	Output logic N=negative logic (parallel) P=positive logic (parallel)	Output & Supply voltage L5=RS422 line driver 5Vdc																
Series EAD = Incremental & Absolute double output encoder	Output & Supply voltage <table border="0" style="width: 100%;"> <tr> <td style="width: 40%;">N6=NPN (Standard negative logic)</td> <td style="width: 40%;">10~30Vdc</td> </tr> <tr> <td>N5=NPN (Standard negative logic)</td> <td>5Vdc</td> </tr> <tr> <td>C6=NPN open collector (Standard negative logic)</td> <td>10~30Vdc</td> </tr> <tr> <td>C5=NPN open collector (Standard negative logic)</td> <td>5Vdc</td> </tr> <tr> <td>R6=PNP (Standard positive logic)</td> <td>10~30Vdc</td> </tr> <tr> <td>R5=PNP (Standard positive logic)</td> <td>5Vdc</td> </tr> <tr> <td>U6=PNP open collector (Standard positive logic)</td> <td>10~30Vdc</td> </tr> <tr> <td>U5=PNP open collector (Standard positive logic)</td> <td>5Vdc</td> </tr> </table>	N6=NPN (Standard negative logic)	10~30Vdc	N5=NPN (Standard negative logic)	5Vdc	C6=NPN open collector (Standard negative logic)	10~30Vdc	C5=NPN open collector (Standard negative logic)	5Vdc	R6=PNP (Standard positive logic)	10~30Vdc	R5=PNP (Standard positive logic)	5Vdc	U6=PNP open collector (Standard positive logic)	10~30Vdc	U5=PNP open collector (Standard positive logic)	5Vdc	Easydc Incremental Topdc Incremental Heavydc Incremental Ex-proof
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