

SIZE 15 SERIES TRDA-SH INCREMENTAL HOLLOW SHAFT ENCODER (Fully Enclosed)

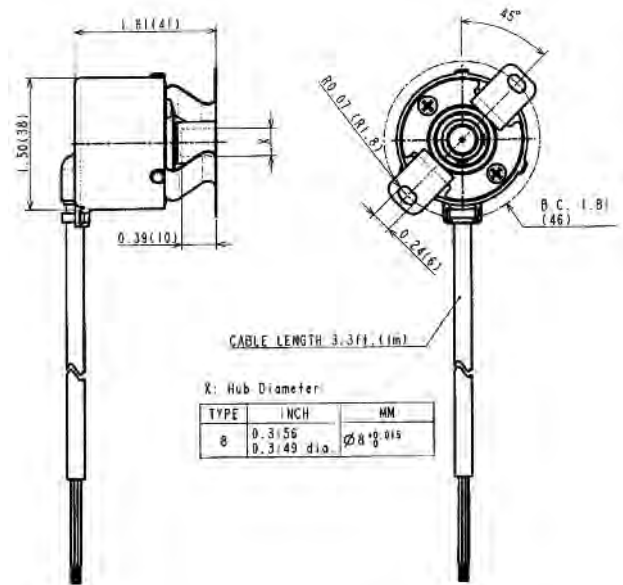


All models US \$150.00
S.R.P. List Price

FEATURES

- 1.5" O.D. Hollow Shaft Medium-duty designed
- Fully Enclosed Body NEMA12/IP-50
- Up to 2500 P/R with 200 kHz Frequency Response
- 5-30Vdc Open Collector & 5Vdc Line Driver Output
- Hub I.D. size 8mm
- Traditional Common Mounting Bolt Circle 1.81" (46mm)
- Micro Capsule Pre-coating Set Screws for Anti-Loose/Anti-slip

OUTLINE DIMENSIONS



SPECIFICATIONS

Electrical

Pulse per Revolution	Up to 2500 P/R
Supply Voltage	5-30Vdc Open Collector & 5Vdc Line Driver
Output Format	Dual Square Wave in Quadrature with Index
Output Option	Line Driver Output 26LS31 Open Collector Output
Current Requirement	Line Driver: 50mA Max. No Load Open Collector: 50mA Max. No Load
Frequency Response	200 KHz
Duty Ratio	50±25%
Phase Shift	25±12.5%
Index Signal Width	100±50%
Output Level	(H) ≥2.5V (L) ≤0.5V
Rise and Fall Time	≤1µs (When cable length is 1m)
Insulation Resistance	≥50MΩ

Shielded Cable (1m/3.3ft.) 5 mm dia wire AWG 26-28, Sheath: PVC

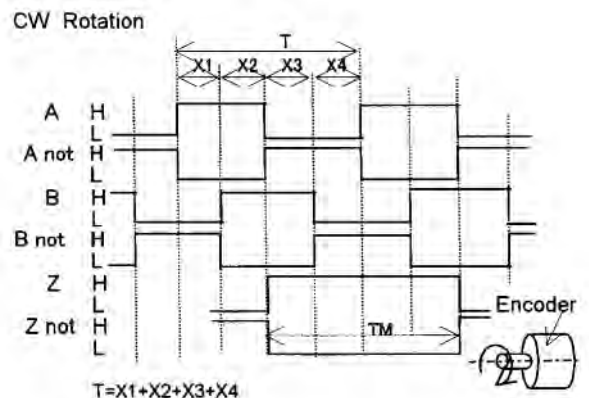
Mechanical

Hub I.D.	8mm
Shaft Loading	Axial: 20N (4.5 lbs) Max. Radial: 30N (6.7 lbs) Max.
Starting Torque	1.4 oz. in. (0.003N•m) at 20°C
Shaft Angular Acceleration	1000 rad/sec ²
Moment of Inertia	2.0x10 ³ Kg•m ²
Mech. Perm. Speed	6000 rpm Max.
Weight	0.3 lb

Environmental

Temperature	Operating: -10 ~ +70°C Storage: -25 ~ +85°C
Operation Humidity	35 ~ 85% without condensation
Vibration	Durable for one hour along 3 axes at 10 to 55 Hz 0.75mm amplitude
Shock	981 m/s ² (11ms 3 times, each X, Y, Z)
Withstand Voltage	500VAC
Construction	NEMA12/IP-50

LINE DRIVER WAVE FORM



CW ROTATION AS VIEWED FROM ENCODER SHAFT

DIVISION ACCURACY

Symmetry (A,B)	$X1+X2=0.5T \pm 0.25T$ $X2+X3=0.5T \pm 0.25T$
Phase shift	$Xn=0.25 \pm 0.125T$ (n=1, 2, 3, 4)
Signal width of Z ch.	$TM=1T \pm 0.5T$

T=360°/N N: Pulse per revolution

DIVISION ACCURACY OF SIGNAL

Accumulative Angle Error	≤0.4T
Pitch Error	±0.01T
Adjacent Pitch Error	±0.01T

SIZE 15 SERIES TRDA-SH

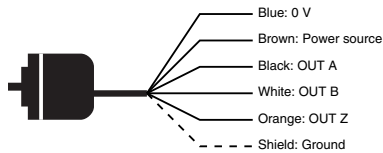
INCREMENTAL HOLLOW SHAFT ENCODER (Fully Enclosed)

Available Disk Resolution 10, 20, 30, 40, 50, 60
 100, 200, 250, 300, 360, 400, 500, 512, 600, 800, 1000, 1024, 1200, 2000, 2048, 2500 — All Glass Disks

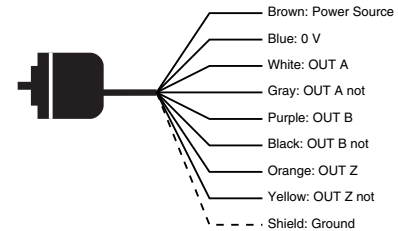
WIRING DIAGRAMS

SHIELDED CABLE 1m/3.3 ft.
 Dia:5mm, Sheath:PVC, Wire: AWG24-26

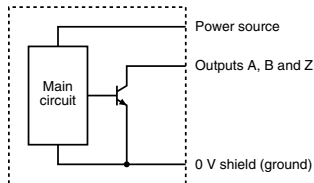
Open Collector (Shield = Body)



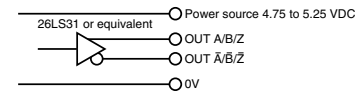
Line Driver (Shield = Body)



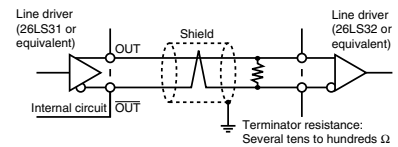
Open Collector Output Circuit



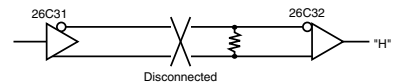
Line Driver Output Circuit



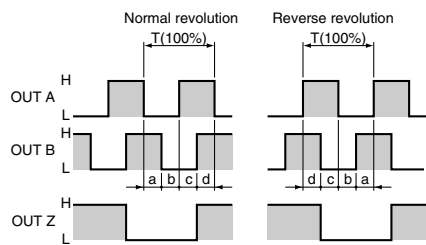
- The line driver can use a RS-422A compliant twisted pair cable of up to 1,200 m.



- Output signal turns to "H" level when the cable or connector is disconnected.



Open Collector Wave Form (Viewed from encoder shaft)



Due to circumstances beyond World Encoders' control, small quantities of In-Stock items will be shipped immediately, and lead time on Non-Stock items is up to a few weeks.



1-800-903-9093

Series TRDA-SH / Size 15 Hollow Shaft Encoder (Fully Enclosed)

Model	Resolution	Output	Mounting B.C.	Hub I.D.	Commutation Signals	
TRDA-SH	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
ORDERING INFORMATION						
TRDA-SH Size 15 Hollow Shaft Encoder (Fully Enclosed)	100	600	A: Open Collector 5 - 12VDC	46mm (1.81")	8 = 8mm (Std.)	N/A
	200	800				
	250	1000				
	300	1024	B: Open Collector 10.8 - 26.4VDC			
	360	1200				
	400	2000				
500	2500	V: Line Driver 5VDC				
512						
	All Metal Disks					

PRICING INFORMATION

	RESOLUTION	OUTPUT / SIGNALS	HUB I.D.	ENVIRONMENTAL
TRDA-SH Base price \$150.00	100 Thru 1024	N/C 5 - 26V Open Collector Quadrature A & B with Index Z N/C	8mm N/C	Fully Enclosed Body NEMA 12 (IP-50)
	2000 Thru 2500	Add \$20.00 5V Linedriver Quadrature A & B with Index Z N/C		

PART NUMBER	LIST PRICE	PART NUMBER	LIST PRICE
TRDA-SH100B8	\$150.00	TRDA-SH1024B8	\$150.00
TRDA-SH100BQ	\$150.00	TRDA-SH1024BQ	\$150.00
TRDA-SH100V6	\$150.00	TRDA-SH1024V6	\$150.00
TRDA-SH100V8	\$150.00	TRDA-SH1024V8	\$150.00
TRDA-SH100VQ	\$150.00	TRDA-SH1024VQ	\$150.00
TRDA-SH360B8	\$150.00	TRDA-SH2000B8	\$170.00
TRDA-SH360V6	\$150.00	TRDA-SH2000V6	\$170.00
TRDA-SH360V8	\$150.00	TRDA-SH2000V8	\$170.00
TRDA-SH360VQ	\$150.00	TRDA-SH2000VQ	\$170.00
TRDA-SH400V6	\$150.00	TRDA-SH2048B8	\$170.00
TRDA-SH500B8	\$150.00	TRDA-SH2048BQ	\$170.00
TRDA-SH500BQ	\$150.00	TRDA-SH2048V6	\$170.00
TRDA-SH500V6	\$150.00	TRDA-SH2048V8	\$170.00
TRDA-SH500V8	\$150.00	TRDA-SH2048VQ	\$170.00
TRDA-SH500VQ	\$150.00	TRDA-SH2500B8	\$170.00
TRDA-SH1000B8	\$150.00	TRDA-SH2500BQ	\$170.00
TRDA-SH1000B8-2M	\$170.00	TRDA-SH2500V6	\$170.00
TRDA-SH1000BQ	\$150.00	TRDA-SH2500V8	\$170.00
TRDA-SH1000V6	\$150.00	TRDA-SH2500VQ	\$170.00
TRDA-SH1000V8	\$150.00		

Note: Hub ID 8mm is Standard. However, 6mm, 1/4" are available in limited Qty.
ID 6mm and 1/4" will be discontinued. Check our inventory first.

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