

SIZE 15 SERIES TRDA-2E

INCREMENTAL SHAFT ENCODER

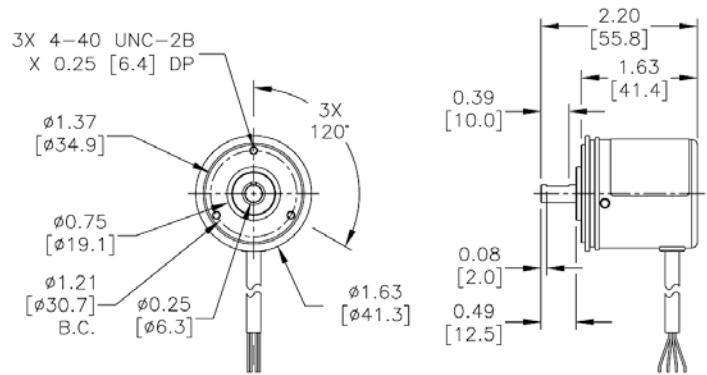


Starting at US \$345.00 (up to 1024ppr)
S.R.P. List Price
Nicely Equipped model as shown.

FEATURES

- 1.5" O.D./Servo Mount
- Up to 2500 P/R, heavy-duty, alumi-diecast case NEMA12 (IP-54)
- 200 KHz frequency response
- A, B, Index with complements
- C-Flange, Flex-coupling available
- Applications:
Machine Tool, Robotics, Packaging,
Medical Diagnostic Equipment,
Elevator Control, Printing Equipment
Semiconductor Processing, Food Process

OUTLINE DIMENSIONS



SPECIFICATIONS

Electrical

Pulse per Revolution	Up to 2500
Supply Voltage	5Vdc (line driver), 5V~26Vdc (open collector)
Output Format	Dual Square Wave in Quadrature with Index
Output Option	TTL Line Driver Output 26LS31 (EIA:RS-422A) Open Collector Output
Current Consumption	TTL Line Driver: 50mA Max. No Load Open Collector: 50mA Max. No Load
Frequency Response	200 KHz [A, B and Index]
Electrical Connections	3.3ft. Shielded Cable
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

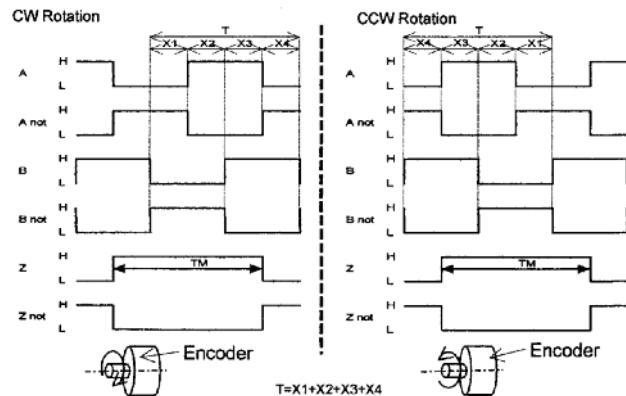
Mechanical

Shaft Diameter	.2497"/.2495"
Shaft Loading	Axial: 4.5 lbs. Max. (20N) Radial: 6.7 lbs. Max. (30N)
Shaft Runout	.0016" TIR Max.
Starting Torque at 25°C	0.01N • m Max.
Shaft Angular Acceleration	1x10 ⁴ rad/Sec ² Max.
Moment of Inertia	0.6x10 ⁻⁶ Kg • m ²
Rated Speed	5000RPM
Weight	3.5 oz. Max.

Environmental

Temperature	Operating: -10 ~ +70°C Storage: -25 ~ +85°C
Operating Humidity	35 ~ 85% without condensation
Vibration	Durable for one hour along 3 axes at 10 to 55 Hz 0.75mm amplitude
Shock	490 m/s ² (11ms 3-times, each X, Y, Z)
Withstand Voltage	500VAC at 50/60 Hz for 1 minute
Construction	NEMA12/IP-54

LINE DRIVER WAVE FORM



CW or CCW ROTATION AS VIEWED FROM ENCODER SHAFT

DIVISION ACCURACY

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

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

Series TRDA-2E / Size 15 Shaft Encoder

Model	Resolution	Voltage/Output	Flange
TRDA-2E	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> —	<input type="checkbox"/>

ORDERING INFORMATION

TRDA-2E Size 15 Shaft Encoder	50	512	A = Open Collector	NONE = 0	SHIELDED CABLE 1 m/ 3.3 ft. Dia: 5mm Sheath: PVC Wire: AWG 24-26
	100	600	5 - 12 VDC	F - 2	
	200	800		F - 3	
	240	1000	B = Open Collector	F - 6	
	250	1024	10.8 - 26.4 VDC	F - 7	
	300	1200		F - 8	
	360	2000	V = Line Driver		
	400	2048	5 VDC		
	500	2500			
	All Glass Disks				

PRICING INFORMATION

	RESOLUTION	ELECTRICAL	FLANGE	TERMINATION
TRDA-2E Base price \$300.00	50 Thru 512 1000 Thru 2048 2500	5 - 26 V Open Collector - - Quadrature A & B w/ Index Z Add \$20.00 5V linedriver - - Quadrature A & B w/ Index Z Add \$20.00	F - 2 Add \$35.00 F - 3 Add \$40.00 F - 6 Add \$35.00 F - 7 Add \$30.00 F - 8 Add \$50.00	Shielded Cable std. 3 ft. N/C
	N/C			
	Add \$25.00			
	Add \$40.00			

PART NUMBER	LIST PRICE	Flexible Couplings (Aluminum, Clamping Design Both Ends)	
TRDA-2E100V	\$320.00	3/4" dia X 3/4" L	
TRDA-2E100V-7148	\$430.00	BT 075-C.250-C.250	\$80.00
TRDA-2E250V-F3-7140	\$500.00	BT 075-C.375-C.250	\$80.00
TRDA-2E360A	\$320.00	BT 075-C.375-C.375	\$80.00
TRDA-2E360B	\$320.00	BT 075-C.6MM-C.6MM	\$80.00
TRDA-2E360V	\$320.00	BT 075-C.250-P000	\$80.00
TRDA-2E500A	\$320.00	BT 075-P05MM (metric plastic insert)	N/C
TRDA-2E500V	\$320.00	BT 075-P06MM (metric plastic insert)	N/C
		BT 075-P08MM (metric plastic insert)	N/C
		1.00" dia X 1.00" L	
TRDA-2E1000A	\$345.00	BT 100-C.250-C.250	\$90.00
TRDA-2E1000B	\$345.00	BT 100-C.250-C.375	\$90.00
TRDA-2E1000V	\$345.00	BT 100-C.250-C.500	\$90.00
TRDA-2E1000V-F6-7135	\$525.00	BT 100-C.375-C.375	\$90.00
TRDA-2E1000V-F8-7137	\$550.00	BT 100-C.500-C.250	\$90.00
TRDA-2E1024A	\$345.00	BT 100-C.8MM-C.8MM	\$90.00
TRDA-2E1024B	\$345.00	BT 100-C.10MM-C.10MM	\$90.00
TRDA-2E1024V	\$345.00	BT 100-C.375-P000	\$90.00
TRDA-2E2000B	\$345.00	BT 100-P06MM (metric plastic insert)	N/C
TRDA-2E2000V	\$345.00	BT 100-P08MM (metric plastic insert)	N/C
		BT 100-P10MM (metric plastic insert)	N/C
		1.25" dia X 1.25" L	
TRDA-2E2048A	\$345.00	BT 125-C.375-C.250	\$100.00
TRDA-2E2048B	\$345.00	BT 125-C.375-C.375	\$100.00
TRDA-2E2048V	\$345.00	BT 125-C.375-C.500	\$100.00
TRDA-2E2500A	\$360.00	BT 125-C.375-P.000	\$100.00
TRDA-2E2500B	\$360.00	BT 125-P06MM (metric plastic insert)	N/C
TRDA-2E2500V	\$360.00	BT 125-P08MM (metric plastic insert)	N/C
		BT 125-P10MM (metric plastic insert)	N/C

FLANGES

FEATURES

- NEMA 23, NEMA 34/42 Motor Mount Bell Flanges
- Size 2.1" O.D. NEMA 23 Flanges:
F-2 (1.05" height), **F-6** (1.34" height)
- Size 3.25" O.D. NEMA 34 Flange: **F-3**
- Size 3.25" O.D. NEMA 42 Flange: **F-8**

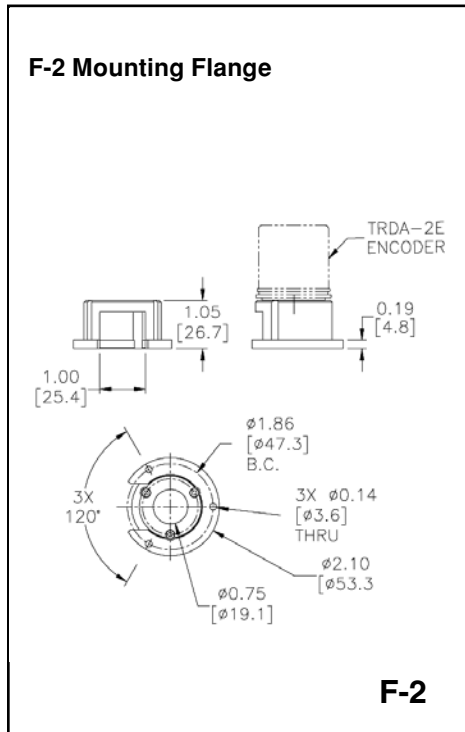
• **Parker Compumotor** Equivalent:

E 57= **F-6**, E 83/E 106= **F-8**

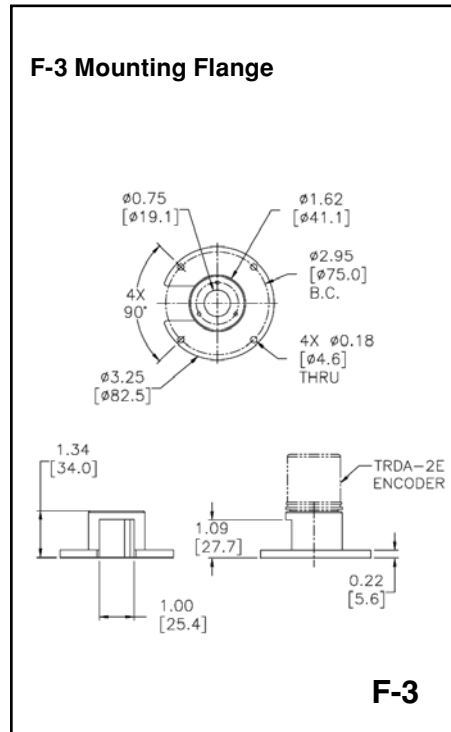
TRDA-2E1000V-F6-7135	E57
TRDA-2E1000V-F8-7136	E83
TRDA-2E1000V-F8-7137	E106

• **Dynapar E-23 Series, DRC M21AA Series**
 Interchangeable: **F-7**

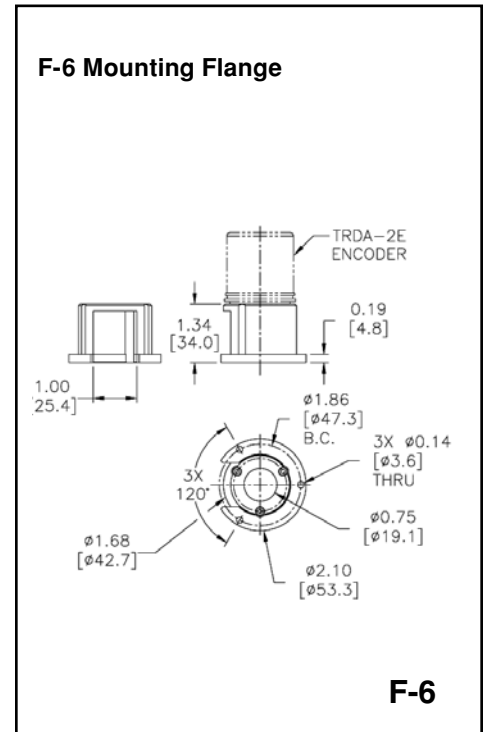
NEMA 23



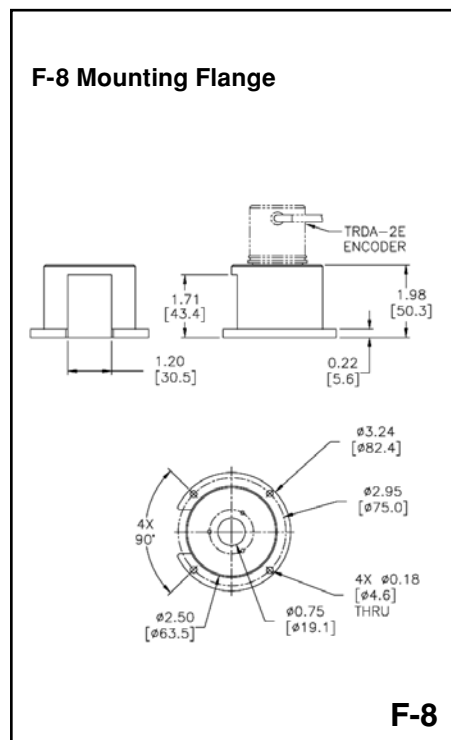
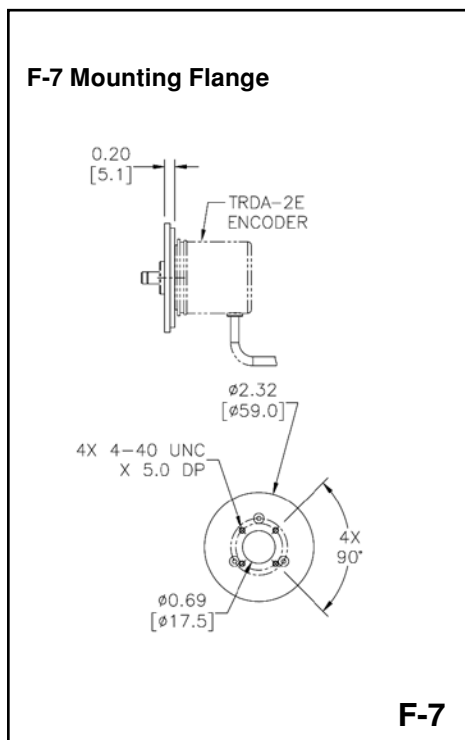
NEMA 34



NEMA 23



NEMA 42



FLANGES	LIST PRICE
F-2	\$35.00
F-3	\$40.00
F-6	\$35.00
F-7	\$30.00
F-8	\$50.00
F-20	\$60.00
F-21	\$60.00

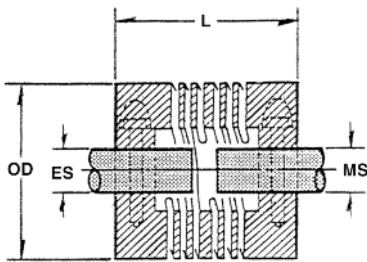
NOTE: When F-7 flange will be mounted on the unit, shaft length get shorter to 1/4".

FLEX-COUPLING

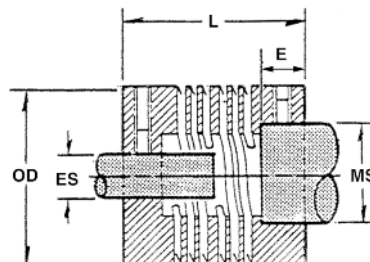


FEATURES

- Precision All Mighty Flexible Coupling
- 6 Short Thin-Double Tapered Curved Beams restrict torque wind-up
- Protects electrical leakage and thermal stress
- Reliable Integral Clamp Design
- Metric Phenolic Insert Coupling available in 5, 6, 8, 10mm



THROUGH BORE



THROUGH AND LIMITED BORE

Coupling Specifications

	BT 075	BT 100	BT 125
O.D.	0.75	1	1.25
Length	0.75	1	1.25
E(depth)	0.22	0.28	N/A
Torque lb.in.	7	18	34
Angular Offset	4°	5°	5°
Parallel Offset	0.008	0.01	0.01
Axial Offset	±.005	±.010	±.012
Static Torque	20	42	103
Inertia lb.in.²	2.463	8.888	26.18
Mass lb.	0.031	0.062	0.122

PART NUMBER	LIST PRICE
Flexible Couplings (Aluminum, Clamping Design Both Ends)	
3/4" dia X 3/4" L	
BT 075-C.250-C.250	\$80.00
BT 075-C.375-C.250	\$80.00
BT 075-C.375-C.375	\$80.00
BT 075-C.6MM-C.6MM	\$80.00
BT 075-C.250-P000	\$80.00
BT 075-P05MM (metric plastic insert)	N/C
BT 075-P06MM (metric plastic insert)	N/C
BT 075-P08MM (metric plastic insert)	N/C
1.00" dia X 1.00" L	
BT 100-C.250-C.250	\$90.00
BT 100-C.250-C.375	\$90.00
BT 100-C.250-C.500	\$90.00
BT 100-C.375-C.375	\$90.00
BT 100-C.500-C.250	\$90.00
BT 100-C.8MM-C.8MM	\$90.00
BT 100-C.10MM-C.10MM	\$90.00
BT 100-C.375-P000	\$90.00
BT 100-P06MM (metric plastic insert)	N/C
BT 100-P08MM (metric plastic insert)	N/C
BT 100-P10MM (metric plastic insert)	N/C
1.25" dia X 1.25" L	
BT 125-C.375-C.250	\$100.00
BT 125-C.375-C.375	\$100.00
BT 125-C.375-C.500	\$100.00
BT 125-C.375-P.000	\$100.00
BT 125-P06MM (metric plastic insert)	N/C
BT 125-P08MM (metric plastic insert)	N/C
BT 125-P10MM (metric plastic insert)	N/C