

OPTICAL ENCODER INFORMATION

MOMENT OF INERTIA: 4.5 X 10⁻⁵ OZ-IN-SEC²

RATED SPEED RANGE: RESOLUTION DEPENDENT

FLUTTER: LESS THAN ±1X P-P

ROTATION: CW AND CCK

HUB SIZE: 1/2 DIA

ELECTRICAL: QUADRATURE OUTPUT (SEE GRAPH)

CODE: 1000

PULSES PER REVOLUTION: 5 VDC ±5% AT 135 mA

INPUT POWER: DC TO 100 KHZ

DATA RATE: -10° TO +85° C

ENVIRONMENTAL: -30° TO +110° C

OPERATING TEMPERATURE: 90% REL. (NO CONDENSATION)

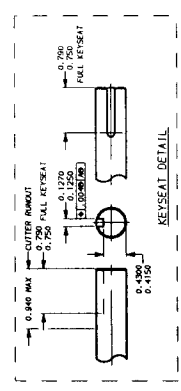
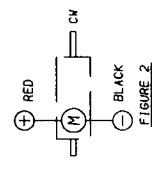
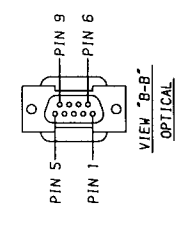
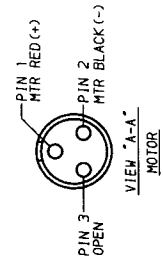
STORAGE TEMPERATURE: HUMIDITY

DETERMINED WHEN NAMEPLATE IS PRINTED.

♦ DENOTES REVISION LEVEL OF ASSEMBLY.

REV. NO.	REVISION
EG43	
ELECTRO-CRAFT CORPORATION	
200 WASHINGTON ST. S.W.	
LAKELAND, FLORIDA 34041	
DATE CODE	CUSTOMER PART NO.
643-036-0121	

PIN	COLOR	FUNCTION
1	RED	(+)5 V
2	BLACK	GROUND
3	BLUE	CHANNEL 'B'
4	GREEN	CHANNEL 'B+'
5	WHITE	CHANNEL 'A'
6	YELLOW	CHANNEL 'A+'
7	ORANGE	INDEX +
8	BROWN	INDEX -
9		SHIELD



DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED	UNTOLERANCED DIMENSIONS REFERENCE INCHES	THIRD ANGLE PROJECTION	CUSTOMER	MINARIK ELECTRIC	CUSTOMER PART NO. & REVISION	DMG. No.
SCALE	DATE	DATE	DATE	BY	BY	BY	DATE
1:1	1-8-95	1-8-95	1-8-95	JV	JV	MINARIK ELECTRIC	ES643-036-0121
TYPE	DATE	DATE	DATE	BY	BY	BY	DATE
DC	1-8-95	1-8-95	1-8-95	JV	JV	MINARIK ELECTRIC	ES643-036-0121
SERIES	DATE	DATE	DATE	BY	BY	BY	DATE
643	1-8-95	1-8-95	1-8-95	JV	JV	MINARIK ELECTRIC	ES643-036-0121
REV	ECO. NO.	DATE	DATE	BY	BY	BY	DATE
H	62147	7-24-03					
G	58436	8-19-99					
F	57515	1-7-98					
E	56832	5-23-97					
D	53137	6-16-95					
C	53003	5-17-95					
B	52772	3-23-95					
A	52468	1-18-95					

- NOTE:**
- NAMEPLATE TO READ LEFT TO RIGHT FROM REAR OF MOTOR. MOTOR SPECIFICATIONS ARE AT 25°C UNLESS OTHERWISE NOTED
 - MOTOR Kt: 16.8 ± 10% OZ-IN/A
 - MOTOR TERMINAL RESISTANCE: 0.40-0.54 OHMS AT 4 A.
 - MAXIMUM TERMINAL VOLTAGE: 60 V.
 - MAXIMUM CONTINUOUS SPEED: 4800 RPM (NO LOAD).
 - MAXIMUM PEAK TORQUE: 720 OZ-IN.
 - MAXIMUM PEAK CURRENT: 43 A.
 - MAXIMUM CONTINUOUS STALL TORQUE: 155 OZ-IN.
 - MAXIMUM CONTINUOUS CURRENT: 10.2 A.
 - ELECTRICAL TIME CONSTANT: 1.5 MSEC.
 - MECHANICAL TIME CONSTANT: 4.2 MSEC.
 - MOTOR INDUCTANCE: 0.7 mH.
 - MOTOR INERTIA: 0.030 OZ-IN-SEC².
 - STATIC FRICTION TORQUE: 8.0 OZ-IN MAX.
 - ROTATIONAL LOSSES: 2.5 OZ-IN/KRPM.
 - NO LOAD CURRENT AT 40 V: 1.0 A MAX.
 - MAXIMUM WINDING TEMP 155°C.
 - THERMAL RESISTANCE ARMATURE TO AMBIENT: 2.2°C/W MOUNTED ON A: 12 IN. X 12 IN. X 0.50 IN. HEATSINK.
 - THERMAL STABILITY OF MOTOR TORQUE CONSTANT: -0.2%/°C.
 - DIELECTRIC BREAKDOWN OF MOTOR ARMATURE TO GROUND: 600 V AT 60 Hz FOR 1 SECOND.
 - SHAFT END PLAY (SEE FIGURE 1): 0.010 IN. MAX IN DIRECTION "A", WITH A 10 LB LOAD. 0.001 IN. MAX IN DIRECTION "B", WITH A 10 LB LOAD.
 - MOTOR WEIGHT 10 LBS.



OUTLINE