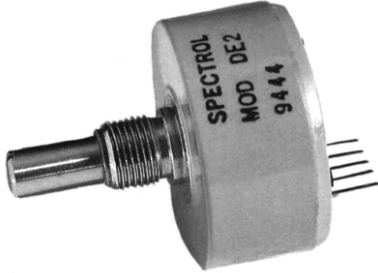


Incremental Resistive Encoder



FEATURES

- Patented Silver-in-Glass™ Switching Element Technology
- Two Channel Quadrature Output
- Optional Index Pulse
- 32 Pulses Per Revolution (Can be resolved to 128 Increments per revolution)
- Additional Pulses Per Revolution Available (Consult Factory)
- Internal Active De-Bounce Circuitry Provides Clean, High Level Outputs with CMOS or TTL Logic
- Optional Shaft Seal

ELECTRICAL SPECIFICATIONS (CMOS) FOR STD. DE2				
PARAMETER	SYMBOL	MIN	MAX	UNITS
Input Specifications				
Supply Voltage	V_S	3.0	6.0	V
Supply Current	I_S	-	4.0	mA
Output Specifications				
Output High Voltage ($V_S = 5.0\text{ V}$, $I_O = 4.0\text{ mA}$)	V_{OH}	3.8	-	V
Output Low Voltage ($I_O = 4.0\text{ mA}$)	V_{OL}	-	0.4	V
Output Current	I_O	-	20	mA

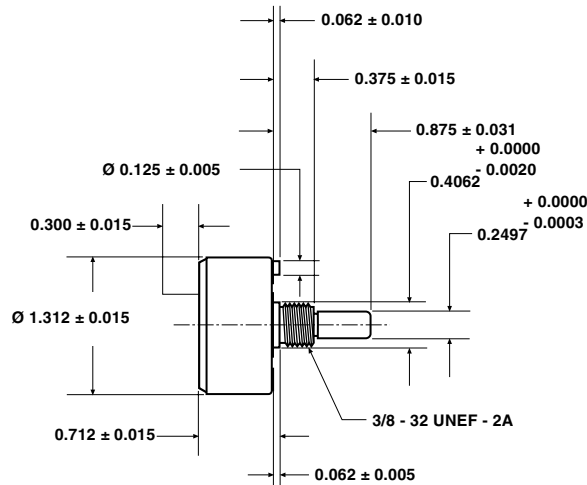
MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotational Speed	CONTINUOUS 200 RPM	PERIODIC 400 RPM
Operating Torque	STARTING 1.0 oz - in Maximum	RUNNING 0.7 oz - in
Bearing	Sleeve	
Shaft Runouts (TIR)	0.002 in	
Pilot Runouts (TIR)	0.003 in	
Lateral Runouts (TIR)	0.005 in	
End Play	0.008 in	
Radial Play	0.003 in	
Weight	1 oz Maximum	

ORDERING INFORMATION/DESCRIPTION				
DE2	0	1	32	BO10
MODEL	OPTIONS AVAILABLE		PACKAGING	
	0 - Standard 1 - Index*	0 - No Debounce 1 - CMOS Debounce Circuitry 2 - TTL Debounce Circuitry		

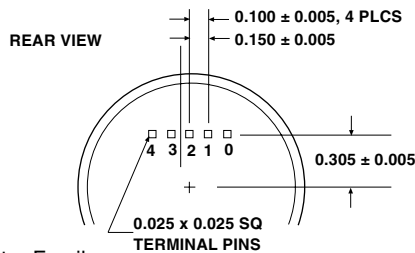
* Index option requires debounce circuitry

SAP PART NUMBERING GUIDELINES				
DE2	0	1	128	B10
MODEL	STYLE	CONFIGURATION	PULSES PER REVOLUTION	

DIMENSIONS in inches (millimeters)

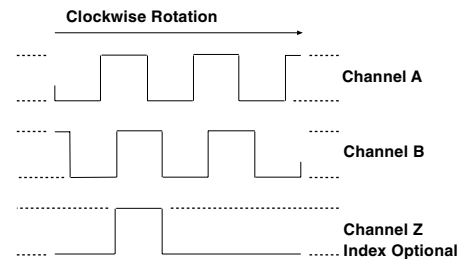


TERMINAL CONFIGURATION



Mating Connector
AMP - MODU Connector Family
Molex 70066 Family

TIMING DIAGRAM



STANDARD (DE2-0-X-32)	
TERMINAL	FUNCTION
1	Input (V_s)
2	Common
3	Channel A Out
4	Channel B Out

INDEX (DE2-1-X-32)	
TERMINAL	FUNCTION
0	Input (V_s)
1	Common
2	Channel A Out
3	Channel Z Out
4	Channel B Out

MATERIAL SPECIFICATIONS	
Housing	Molded, Glass Filled Thermoplastic
Shaft	Stainless Steel
Bushing	Brass, Nickel Plated
Terminal Pins	Phosphor Bronze, Solderable
Mounting Hardware: Lockwasher Panel Nut	Steel, Nickel Plated Brass, Nickel Plated

ENVIRONMENTAL SPECIFICATIONS	
PARAMETER	
Rotational Life	5 Million Shaft Revolutions
Temperature Range: Operating Storage	- 20 °C to + 85 °C - 55 °C to + 125 °C
Vibration	15 G, at 0 to 2 kHz
Shock	50 G
Moisture Resistance	Method 106, MIL-STD-202
Salt Spray	48 hours



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