

Incremental Resistive Encoder (32 to 128 Pulses per Turn)



This Model DE2 is only for maintenance purposes. It is not recommended for new designs and will be obsolete in a near future.

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 debounce 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_{OH}	3.8	-	V
($V_S = 5.0$ V, $I_O = 4.0$ mA)	-	-	-	-
Output Low Voltage	V_{OL}	-	0.4	V
($I_O = 4.0$ mA)	-	-	-	-
Output Current	I_O	-	20	mA

MECHANICAL SPECIFICATIONS

PARAMETER	
Rotational Speed	<div>CONTINUOUS 200 RPM</div> <div>PERIODIC 400 RPM</div>
Operating Torque	<div>STARTING 1.0 oz. - in max.</div> <div>RUNNING 0.7 oz. - in</div>
Bearing	Sleeve
Shaft Runouts (TIR)	0.002"
Pilot Runouts (TIR)	0.003"
Lateral Runouts (TIR)	0.005"
End Play	0.008"
Radial Play	0.003"
Weight	1 oz. max.

ORDERING INFORMATION/DESCRIPTION

DE2	0	1	32	BO10
MODEL			OPTIONS AVAILABLE	PACKAGING
	0 - Standard 1 - Index ⁽¹⁾	0 - No debounce 1 - CMOS debounce circuitry 2 - TTL debounce circuitry		

Note:

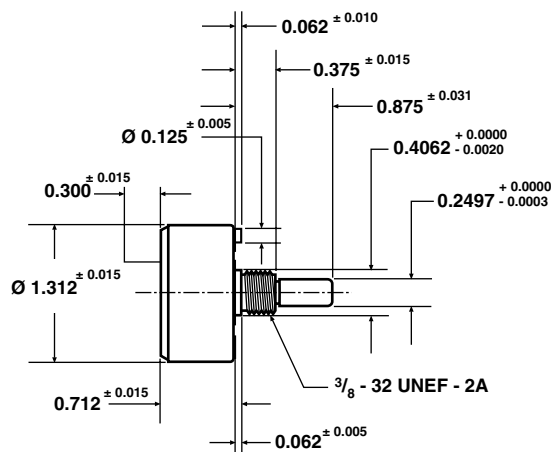
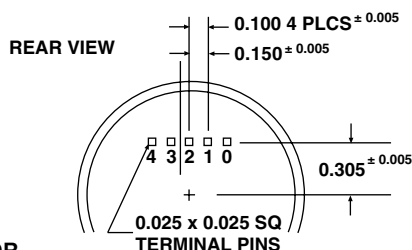
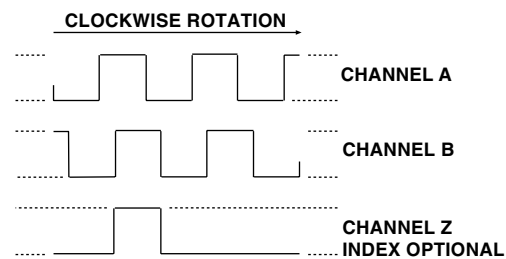
⁽¹⁾ Index option requires debounce circuitry

SAP PART NUMBERING GUIDELINES

DE2	0	1	128	B10
MODEL	STYLE	CONFIGURATION	PULSES PER REVOLUTION	

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Vishay Spectrol

DIMENSIONS in inches (millimeters)**TERMINAL CONFIGURATION****TIMING DIAGRAM**

MATING CONNECTOR
AMP - MODU CONNECTOR FAMILY
MOLEX 70066 FAMILY

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 h



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