

FEATURES

- Input device ideal for tuning, menu scrolling, and selecting functions
- Push-button feature allows dual function and reduced input panel part count
- Vibration and mechanical shock approved per MIL-STD 202
- Exceeds performance for humidity and thermal shock per MIL-STD 202

The OE2 Series Optical Encoder has been developed for customers who require switches that are more reliable and longer lasting than conventional rotary switches. Advanced optical technology uses no mechanical contacts, which reduces noise and eliminates contact bounce.

An important advantage of the OE2 Series is its complete compliance to MIL-STD 202 for humidity, vibration, thermal and mechanical shock and performance, which is unique for the switch industry. This provides a great fit for products involving critical functions, such as medical devices and industrial process controls.

The OE2 features rotary action, with or without a push-button option. This allows dual modes to be performed by a single switch. A popular application of the switch uses this dual mode feature to produce a "scroll and select" function for many different types of display screens, including LCD and CRT.

Numerous design options are available to meet individual specifications and application requirements. Standard output is incremental two-bit quadrature. Both straight pin out or a ribbon cable with connector are available as termination options.

In addition to extended life, the OE2 Series offers the advantages of low power consumption, pin or cable termination, small size, and digital output compatible with TTL and CMOS circuitry.

OE2 SERIES

OPTICAL ENCODERS

APPLICATIONS



MEDICAL INSTRUMENT CONTROL PANEL

For critical care equipment such as defibrillators, ultrasound equipment, and analytical equipment.



TEST AND MEASUREMENT EQUIPMENT

Incremental coded models for all types of electrical measurement equipment.



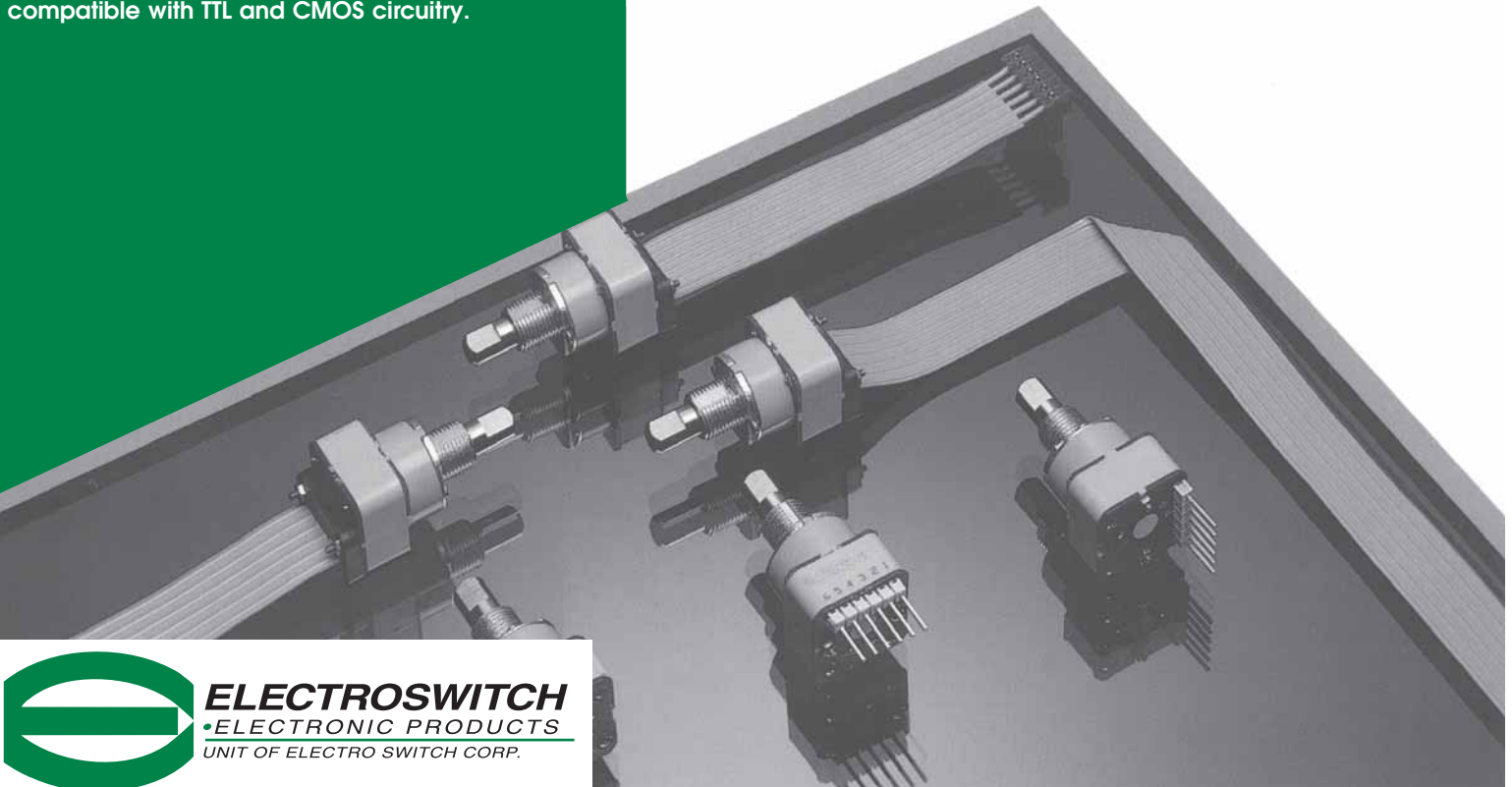
AUTOMOTIVE DIAGNOSTIC EQUIPMENT

For tough service environments that require scrolling and selection.



INDUSTRIAL PROCESS / MACHINERY CONTROL

Encoder-driven capability for speed-tuning and mode selection.



ELECTROSWITCH
• ELECTRONIC PRODUCTS
UNIT OF ELECTRO SWITCH CORP.

Specifications

Electrical Specifications

Parameter	Minimum	Typical	Maximum	Units
Vcc Range	4.5	5.0	5.5	V
Supply Current			25	mA
Vol @ (1mA)		150		mV
Suggested Pull-Up Resistor		4.7k		Ohm
Output Rise Time (measured at 90 rpm) C=16 pF	1.0		6.0	ms
Output Fall Time (measured at 90 rpm) C=16 pF	.5		6.0	ms
Vceo			32	V
Push-button Contact Resistance (end of life)			.5	Ohm
Push-button Contact Bounce	4ms @ close / 10 ms @ open			ms

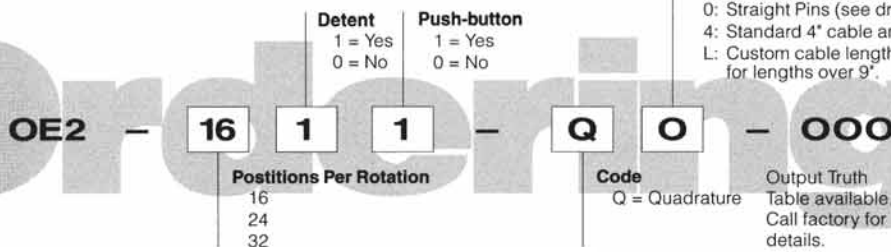
Environmental Specifications

Parameter	Minimum	Maximum	Units
Operating Temperature	-40	85	°C
Storage Temperature:	-55	105	°C
Humidity: 95% R.H. per MIL-STD 202, Method 103B, Test Condition B			

Mechanical Specifications

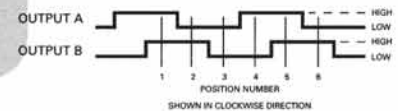
Parameter	Minimum	Typical	Maximum	Units
Rotational Life Rated with less than 8 oz. side load applied at end of shaft				
Detented		3,000,000		rotations
Non-Detented		10,000,000		rotations
Rotational Torque @ 20°C				
Detented	1.0	1.5	2.0	in.-oz.
Non-Detented	0.10	0.40	0.70	in.-oz.
Torque Test Speed 6 rpm				
Push-button Life 1,000,000 Actuations				
Push-button Actuation Force (Where Applicable)				
	375	500	625	gram
Push-button Travel 0.035 ± 0.015 in.				
Bushing Mounting Torque 7.5 in.-lb.				
Shaft end play .015 in.				
Shaft Push-In Force 50 lbs.				
Shaft Pull-Out Force 25 lbs.				
Shaft Radial Play .010 max. T.I.R. (measured from the end of the bushing)				
Shock 100 (g) for 6 ms half sine wave				
Vibration 15 (g) Amplitude 10-2000 (Hz) for 12 (hr)				
Terminal Strength 3 lbs. (applied perpendicular to the terminals)				
Weight 0.04 lbs.				

Ordering the OE2 Series Encoder

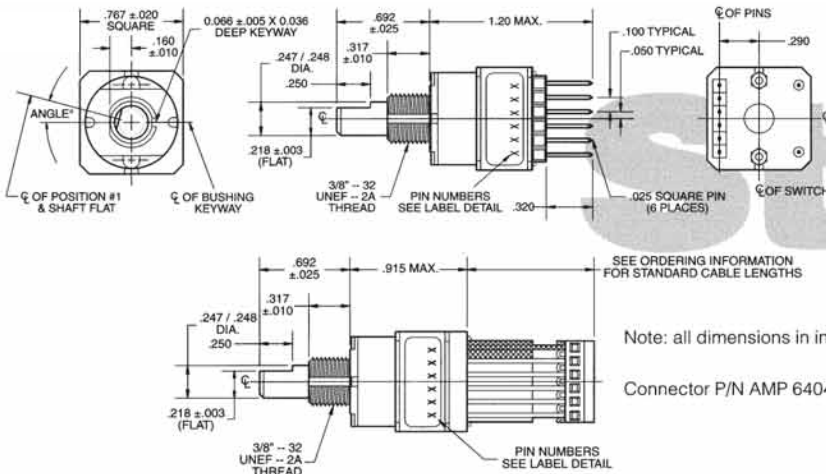


Hardware or Surface Mount Adaptor Bracket Available. Call Factory For Details.

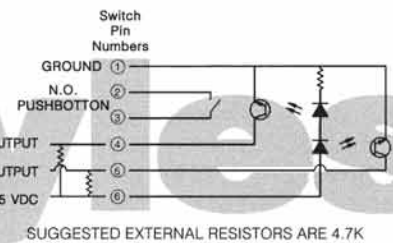
Output Waveforms Quadrature Versions



OE2 Series Encoder Configurations



Electrical Schematic



Note: all dimensions in inches.

Connector P/N AMP 640443-6