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Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

510E1A48F206PB

510 Series Encoder, Mechanical 6 pulse/rev/channel 2-bit Gray code

Features

- Cost effective, eliminates need for A/D converters
- High resolution up to 36 positions
- Stability from -40 °C to 105 °C [-40 °F to 221 °F]
- Horizontal and vertical mounting

Typical Applications

- Level control
- Cursor control
- Frequency control
- Temperature control
- Time Control
- Position sensing

Description

The 510 Series controls are manually operated, rotary, mechanical encoders that provide a two-bit gray code for relative reference applications and a four-bit gray code for absolute electrical reference applications. The "L" channel leads the "R" channel by 90 deg. electrically in the Clockwise position. It features continuous electrical travel and has a rotational life of more than 100,000 shaft revolutions with a positive detent feel.

This series is relatively small in size measuring 21,08 mm [0.83 in] - square by 8.71 mm [0.343 in] - deep. They are commonly used in limited-space panel-mounted applications where the need for costly, front-panel displays can be completely eliminated. Digital gray-code outputs eliminate the need for A/D converters.

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Product Specifications	
Encoder Type	Mechanical
Pulse Per Rev	6 cycles/rev
Detents	24
Pulse	1/4 cycle per detent
Dome Switch	No
Output	2-bit gray code, Channel L leads Channel R by 90 ° electrically in clockwise direction
Contact resistance	5 Ohms max.
Open Resistance	100 kOhms min.
Contact Rating	28 Vdc max at 250 mA
Jitter (Bounce)	5 ms/cycle at 15 RPM
Dielectric Withstanding Voltage	1000 Vac at sea level
Electrical Travel	Continuous
Operating Speed	50 RPM max.
Operating Torque	0,0216 Nm to 0,036 Nm [3.0 oz in to 5.0 oz in]
Panel Mounting Torque	1,13 Nm [7.0 lbs] max.
Body Size (Single Module)	21,1 mm [0.83 in] square, •,127 mm [0.005 in]
Terminals	PC terminals straight Type B-110 (Horizontal mount)
Housing	Molded thermoplastic
Mechanical Travel	Continuous
Rotational Life	100,000 detented cycles at rated load typical (1 cycle=720 degrees)
Shaft Pull Force	4,536 kg [10 lbs] max.
Shaft Side Load Force	1,13 Nm [7 lbs in] max.
Shaft Material	Plastic
Shaft Diameter	6,35 mm [0.25 in]
Shaft length	19,05 mm [0.75 in]
Bushing Material	Plastic
Bushing Diameter	9,53 mm [0.375 in] x 32 NEF-2A
Bushing length	6,35 mm [0.25 in]
Operating Temperature	-40 °C to 105 °C [-40 °F to 221 °F]
Storage Temperature	-55 °C to 120 °C [-67 °F to 248 °F]
Humidity	90% RH at 25 °C [77 °F] Insulation resistance 1 MOhm max.; Per MIL-STD 202, Methiod106C
Shock	Per MIL-STD-202; method 213, Condition G
Series Name	510 Series
Availability	Global
UNSPSC Code	30211929
UNSPSC Commodity	30211929 Encoders

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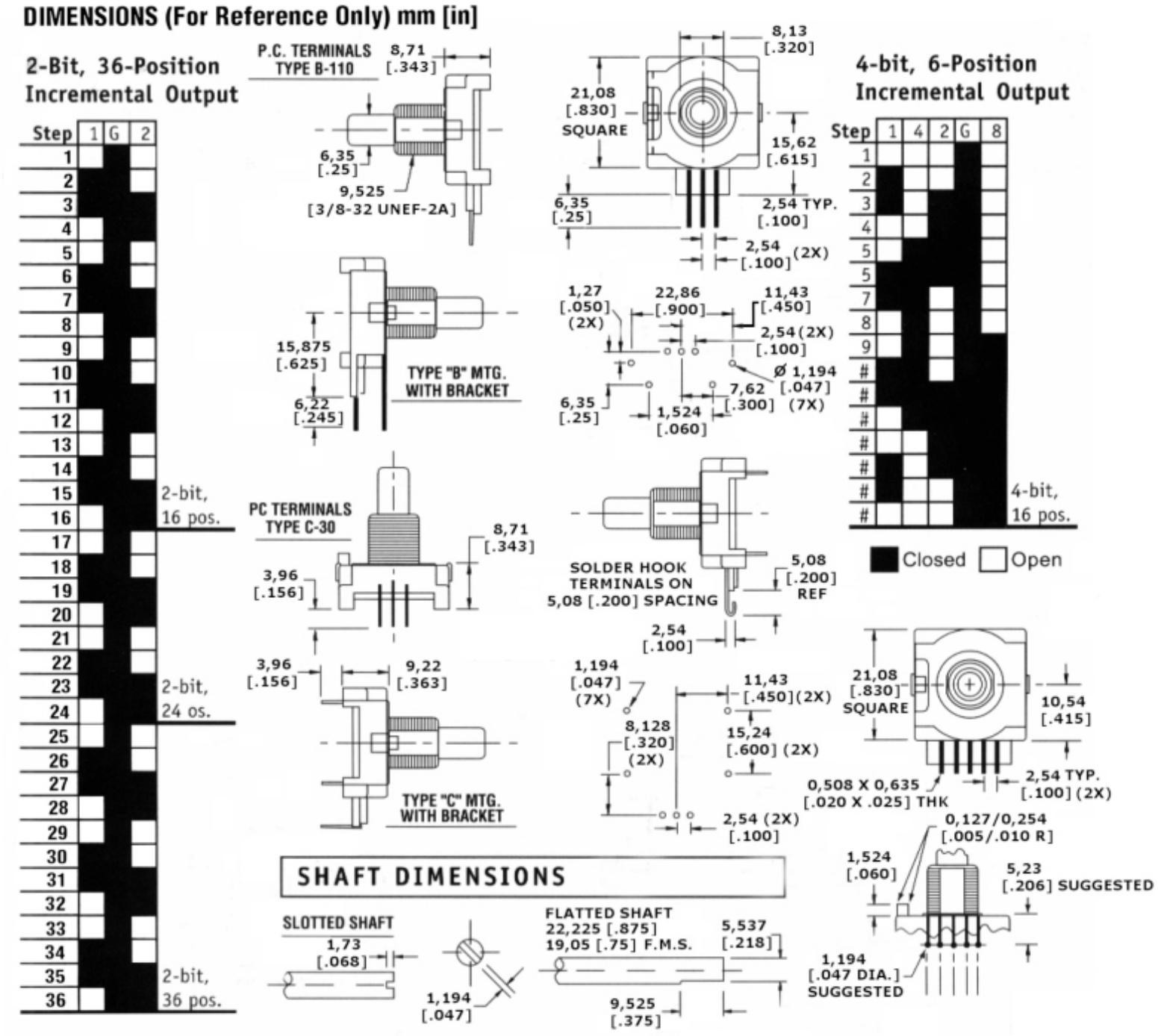

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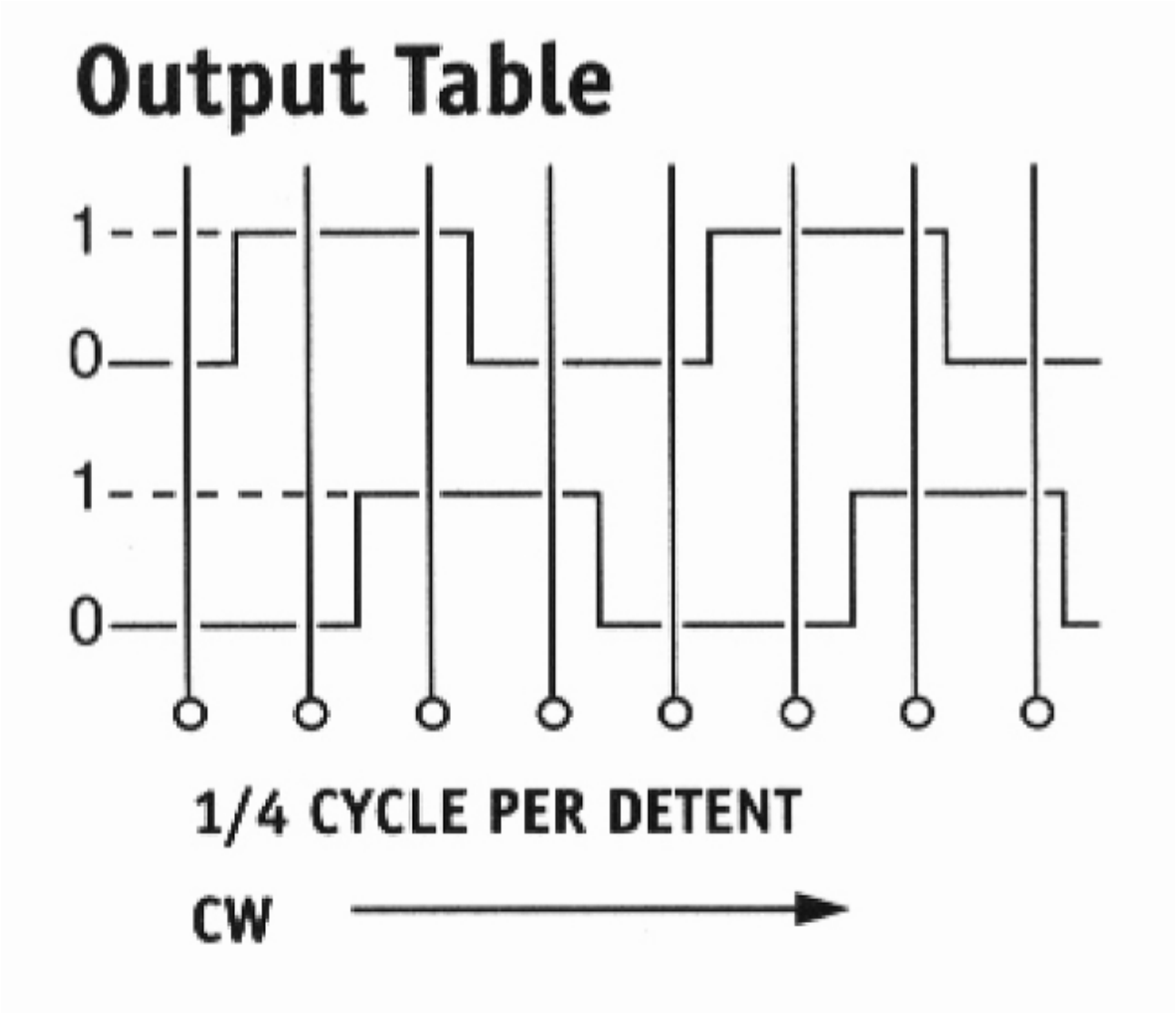

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⚠ WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

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