

## Honeywell Sensing and Control

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## 510E1A48F209PC Encoders

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*Actual product appearance may vary.*

510 Series Encoder, Mechanical 9 pulse/rev/channel 2-bit Gray code

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### Product Specifications

Encoder Type	Mechanical
Pulse Per Revolution	9 cycles/rev
Detents	36
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 Ohm
Open Resistance	100 kOhm
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
Operating Torque	0,0216 N m to 0,036 N m [3.0 oz in to 5.0 oz in]
Panel Mounting Torque	1,13 N m [7.0 lb] max.
Body Size (Single Module)	21,1 mm [0.83 in] square, ±0,127 mm [0.005 in]
Terminal	PC terminals bent back Type C-30 (Vertical mount)
Housing Type	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 lb]
Shaft Side Load Force	1,13 N m [7 lb 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, Method 106C
Shock	Per MIL-STD-202; method 213, Condition G
Series Name	510
Availability	Global
UNSPSC Code	30211929
UNSPSC Commodity	30211929 Encoders

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