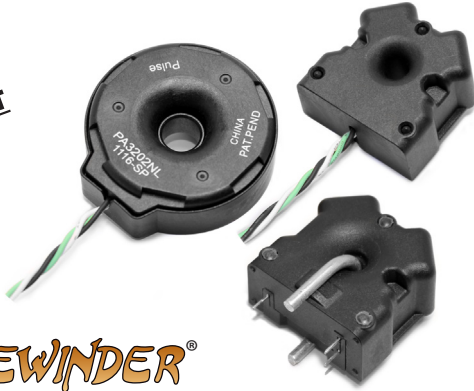


SIDEWINDER® - CURRENT SENSOR

PA320XNL Series



- 50/60 Hz, Single Phase, AC Current Sensor
- Dynamic Range from 0.1 to 1000 Amps
- Meets ANSI C12.20 Accuracy Class 0.2
- Meets IEC 62053-21 class 1
- Phase error < 0.05 degree
- Bandwidth 500KHz
- Immune to external AC magnetic fields
- Immune to DC current & DC magnetic field
- Very low temperature coefficient
- Patent pending

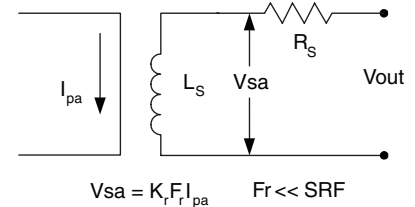
Electrical Specifications at 25°C Temp Range -40°C to 130°C							Actual Secondary Output Voltage (Vsa)	
Part Number	Accuracy Class ³	Kr ⁴ (μΩ/Hz typ)	Pri-Sec Isolation (V min)	Ls ⁵ (mH typ)	Rs ⁶ (Ohms typ)	SRF ⁷ (Hz typ)	@ 50 Hz (μV/A) ¹	@ 60 Hz (μV/A) ¹
PA3202NL	0.2	8.33	6,000	1.75	57.3	160,000	416	500
PA3206NL	0.2	7.66	6000	1.14	37.6	200,000	383	460
PA3208NL	0.2	7.66	6000	1.14	37.6	200,000	383	460

EQUATIONS: $V_{sa} = K_r F_r I_{pa}$
 $F_r \ll SRF$

NOTES:

- Output Voltage is proportional to the derivative (di/dt) of the input current based on the Rogowski Coil principle.
- All current and voltages assumed to be sinusoidal waveforms at Fr, the constant rated frequency in Hz, measured as RMS values.
- Accuracy Class per IEC 60044-1 Table 11 where:
 - Percentage current error = $((K_r \cdot F_r \cdot I_{pa} - V_{out}) / V_{out}) \times 100$
 - Phase displacement = the difference between the primary current (Ipa) phase vector and the (secondary voltage (Vout) phase vector minus 90 degrees)
- Kr = Rated transformation constant
- Ls = Secondary winding inductance
- Rs = Secondary winding resistance
- SRF = Self Resonate Frequency
- Ipa = Actual primary current
- Vsa = Actual secondary output voltage

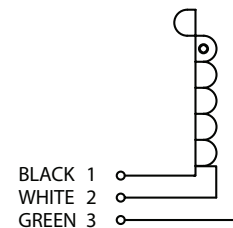
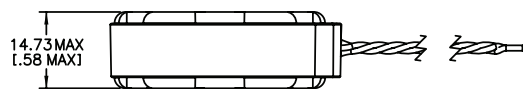
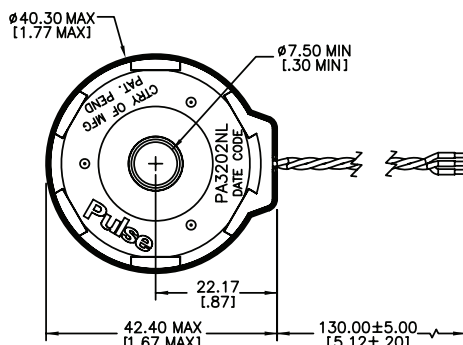
Low Frequency Equivalent Circuit



Mechanicals

Schematics

PA3202NL



SIDEWINDER® - CURRENT SENSOR

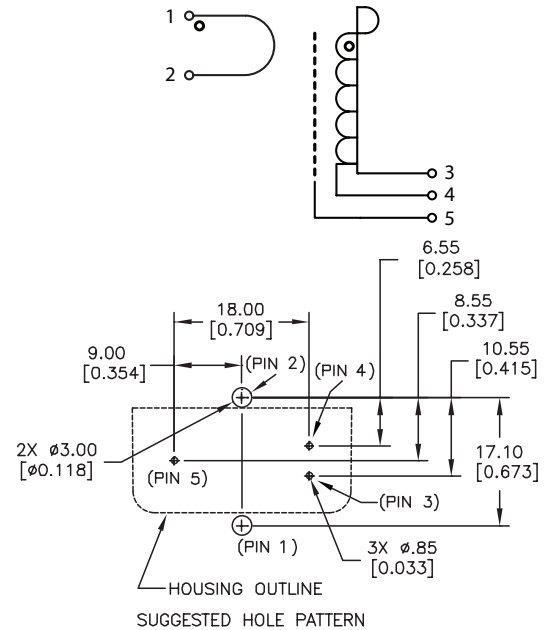
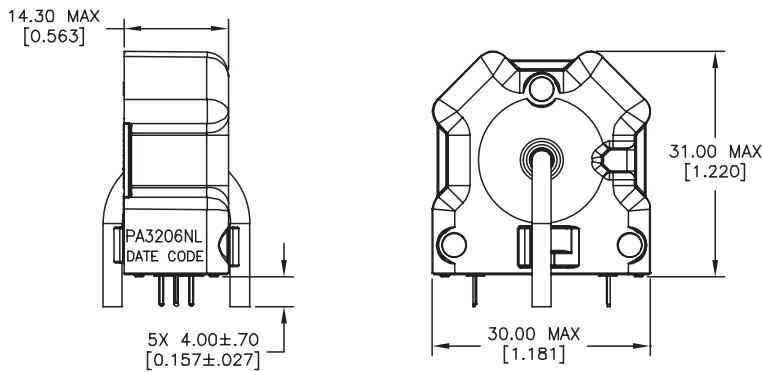
PA320XNL Series



Mechanicals

Schematics

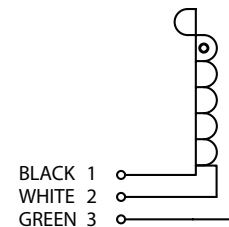
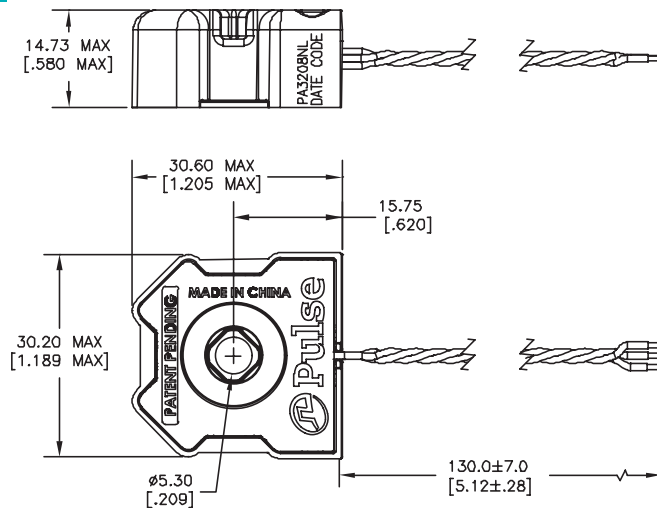
PA3206NL



Mechanicals

Schematics

PA3208NL



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