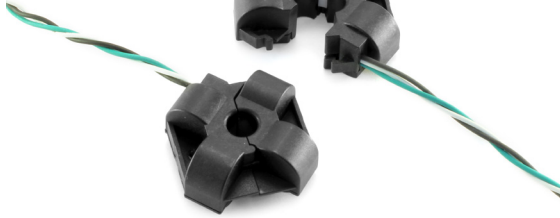


SIDEWINDER® - CURRENT SENSOR

PA3828NL Series



- Unique, Clamp On AC current sensor
- Can be installed without disconnecting wires
- Multiple Open and Close, up to 100 times
- Current Range from 0.1 to 100 Amps AC
- 1% Accuracy Class
- Patent Pending

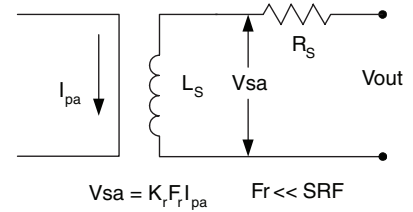
Electrical Specifications at 25°C Temp Range -40°C to 130°C						Actual Secondary Output Voltage (Vsa)	
Part Number	Kr ⁴ (μΩ/Hz typ)	Pri-Sec Isolation (V min)	Ls ⁵ (mH typ)	Rs ⁶ (Ohms typ)	SRF ⁷ (Hz typ)	@ 50 Hz (μV/A) ¹	@ 60 Hz (μV/A) ¹
PA3828NL	6.12	1,500	0.895	33.5	300,000	310	372

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

NOTES:

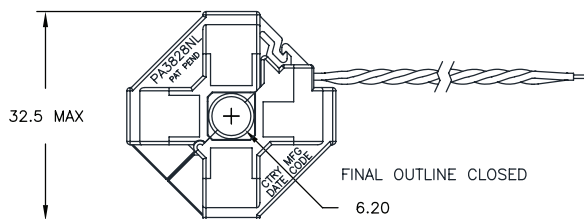
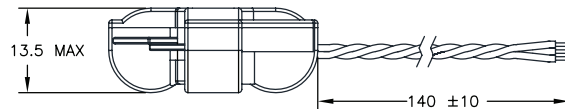
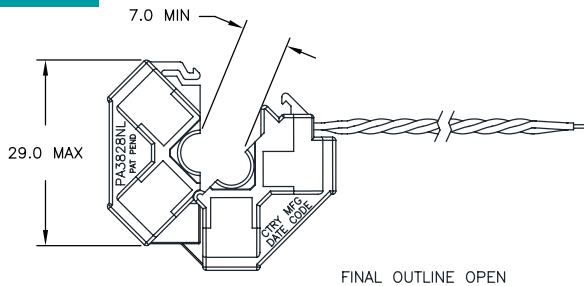
1. Output Voltage is proportional to the derivative (di/dt) of the input current based on the Rogowski Coil principle.
2. All current and voltages assumed to be sinusoidal waveforms at Fr, the constant rated frequency in Hz, measured as RMS values.
3. Accuracy Class per IEC 60044-1 Table 11 where:
 - 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), in minutes
4. Kr = Rated transformation constant
5. Ls = Secondary winding inductance
6. Rs = Secondary winding resistance
7. SRF = Self Resonate Frequency
8. Ipa = Actual primary current
9. Vsa = Actual secondary output voltage

Low Frequency Equivalent Circuit



Mechanical

PA3828NL



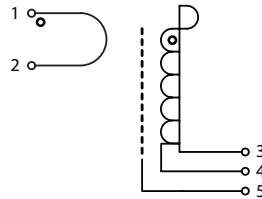
SIDEWINDER® - CURRENT SENSOR

PA3828NL Series



Schematic

PA3828NL



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