







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

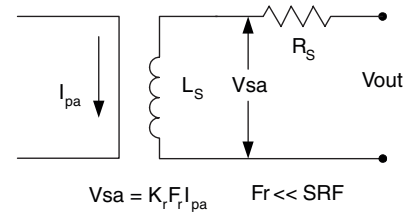
Electrical Specifications at 25°C Temp Range -40°C to 130°C						Actual Secondary Output Voltage (Vsa)	
Part Number	Kr ⁴ (μΩ/Hz typ)	Pri-Sec Isolation (V min)	Ls ⁵ (mH typ)	Rs ⁶ (Ohms typ)	SRF ⁷ (Hz typ)	@ 50 Hz (μV/A) ¹	@ 60 Hz (μV/A) ¹
PA3828NL	6.12	1,500	0.895	33.5	300,000	310	372

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

NOTES:

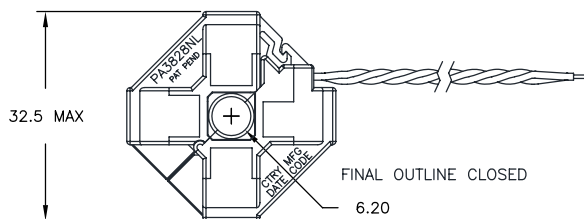
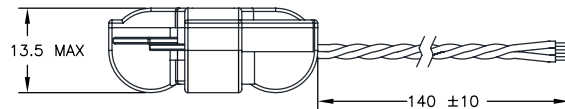
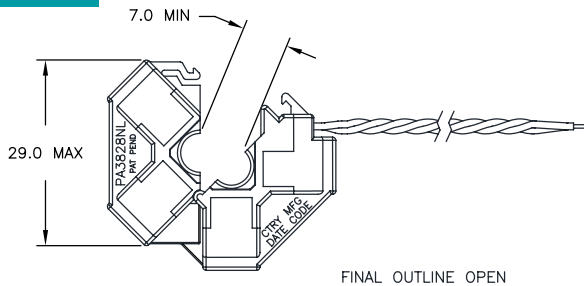
1. Output Voltage is proportional to the derivative (di/dt) of the input current based on the Rogowski Coil principle.
2. All current and voltages assumed to be sinusoidal waveforms at Fr, the constant rated frequency in Hz, measured as RMS values.
3. Accuracy Class per IEC 60044-1 Table 11 where:
 - 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



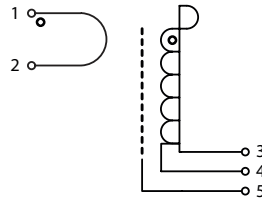
SIDEWINDER® - CURRENT SENSOR

PA3828NL Series



Schematic

PA3828NL



For More Information

Pulse Worldwide Headquarters

12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Zeppelinstrasse 15
71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 12

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057

Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China

Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia

135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

3F No. 198, Zhongyuan Road
Zhongli City
Taoyuan County (32068)
Taiwan

Tel: 886 3 4356768
Fax: 886 3 4356823

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2014. Pulse Electronics, Inc. All rights reserved.