

VAC OPEN-LOOP CURRENT SENSORS

Precision at the Core of Power Measurement

The Reliable Choice for Modern Energy Systems

Accurate current measurement is the foundation of every efficient and safe power system.

With decades of experience in magnetic materials and sensing technologies, VAC expands its portfolio with a new generation of Hall-based open-loop current sensors — designed to deliver precise and dependable performance in industrial environments.

Compact. Robust. Reliable.

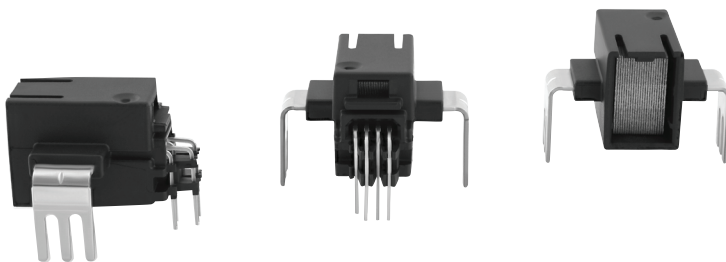
In open-loop sensors, the magnetic flux in the air gap of the magnetic core generated by the current is measured by a Hall probe. This flux is converted into a proportional output voltage — providing fast, reliable, and cost-efficient current detection for DC, AC, and pulsed signals.

PRODUCT HIGHLIGHTS

- Measurement ranges: 80 A – 120 A
- Outstanding frequency bandwidth of up to 200 kHz (-3 dB)
- Short response time of <1.5 µs
- Very stable reference voltage
- Measurement types: DC / AC / pulsed current
- Technology: Hall-effect, open-loop principle
- State-of-the-art industrial Hall-IC

WHY CHOOSE VAC SENSORS

- Precision and stability – dependable results even under demanding load conditions
- Industrial durability – engineered for long-term reliability in harsh environments
- VAC expertise – magnetic-material and sensor know-how built into every product
- Complete portfolio – from open-loop to closed-loop, VAC offers the full range of current measurement solutions



TYPICAL APPLICATIONS

- Renewable-energy control units
- Variable-frequency drives (VFD)
- Uninterruptible power supplies (UPS)
- Battery energy storage systems (BESS)

TECHNICAL DATA

- Frequency range DC to 200 kHz
- Withstands surge currents up to 10 kA 8/20 µs
- Clearance and creepage distance of 8 mm
- Signal output: Conditioned voltage, ready for control and monitoring systems
- Design: Compact, easy to integrate into industrial drives, converters, and automation units

VAC Products

T60404-N4643-	Primary nominal current	Primary peak current
P160	80 A	200 A
P170	100 A	250 A
P180	120 A	300 A

VACUUMSCHMELZE GMBH & CO. KG

Grüner Weg 37
D 63450 Hanau / Germany
Phone +49 6181 380
Fax +49 6181 382645
info@vacuumschmelze.com
www.vacuumschmelze.com

VACUUMSCHMELZE CHINA MAGNETICS

Shanghai Sales Office
Room 06, 19F
Zhongrong Hengrui International Plaza
620 Zhangyang Road, Pudong District
Shanghai, PRC 200122
Phone +86 21 5831 9837
Fax +86 21 5831 9937
vac_china@vacuumschmelze.com

VAC MAGNETICS LLC

2935 Dolphin Drive
Suite 103
Elizabethtown, KY 42701
Phone +1 270 769 1333
Fax +1 270 769 3118
info-usa@vacmagnetics.com

Published by VACUUMSCHMELZE GmbH & Co. KG, Hanau, November 2025
© VACUUMSCHMELZE GmbH & Co. KG 2021. All rights reserved.
® is a Registered Trademark of VACUUMSCHMELZE GmbH & Co. KG

**ADVANCED MAGNETIC SOLUTIONS**