

nansen

José Pedro Araujo, 960 - Cinco - Contagem/MG - Brasil
+55335143355 - nansen@nansen.com.br - www.nansen.com.br



VECTOR 2

INMETRO RTM 587/2012 - ABNT NBR14519, NBR14520, NBR14521, NBR14522, NBR16078
IEC62052-11, IEC62053-21, IEC62053-61 and ASTM B-117 (Salt Spray)



VECTOR 2

ELECTRONIC METERS

High performance multiphase gauges for active and reactive power

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VECTOR 2 MODELS

Vector 2 P A: Active power measurement
Vector 2 P AR: Active and reactive power measurement

The VECTOR 2 P A and 2 P AR gauges were developed by Nansen for billing of active and reactive power on residential consumers of low voltage (Class 1%).

It has features and functionality directed to meet the market requirements.

RELIABILITY

Developed with excellent quality materials, advanced technology and attention to ESD (Electrostatic Discharge), the VECTOR 2 P A and VECTOR 2 P AR gauges have high performance and reliability, providing stability, strength and durability.

Current sensor - SHUNT, which minimizes the risk of magnetic field fraud.

Critical electronic components such as liquid crystal display (LCD) withstand high temperature variations (85 °C

and humidity (87% RH) in accordance with the good practices and the ABNT NBR16078 standard.

Nansen performs periodic aging tests in order to constantly monitor the quality of its products and ensure the useful life of 13 years.

TRANSPORT AND INSTALLATION

VECTOR 2 P gauges have a design which allows, in a simple way, the handling, transportation and installation on end consumers.

Advantages over generation 1: Terminal drawer that facilitates the installation and improves the contact resistance reducing the risk of overheating.

It has reduced weight and dimensions, class 1%, low consumption of the potential and current circuit.

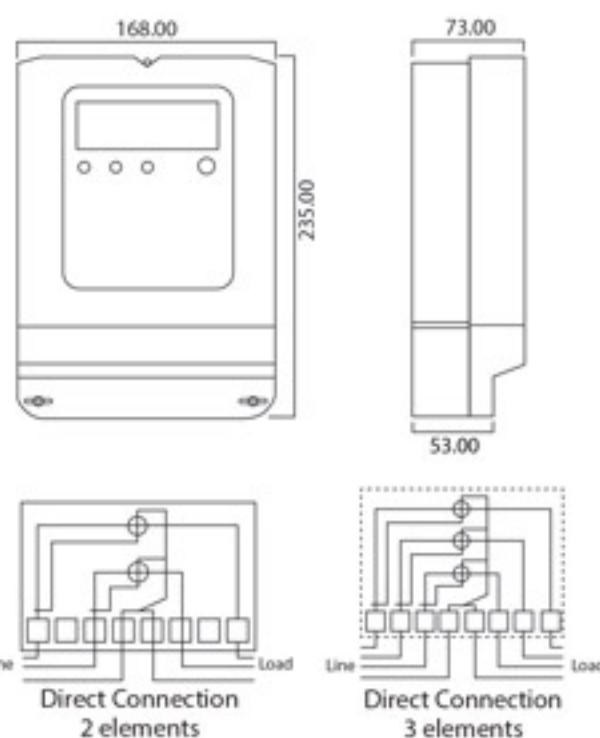
TECHNICAL FEATURES

COMPETITIVENESS AND HIGH PERFORMANCE

Mechanical design, uses materials such as polycarbonate, which provides high performance in conditions of high temperature and humidity.

MEASUREMENT AND RECORD TYPE

VECTOR 2 P gauges have two-way measurement that allows the implementation of one-way Three Phase Record or Record in 4 quadrants with imported or exported active and reactive power.



Voltage	Rated voltage (V_N): 120V or 240V or 120/240V		
	Operating range: 96V to 276V (phase neutral voltage) – Three-phase linear supply		
Current	Maximum current (I_N): 15A		Maximum current (I_{MAX}): 100A
Frequency	50 or 60Hz		
Accuracy	Class B (1% for active power and 2% for reactive power)		
Constants	Ke = Kh = 1.25 Wh/ pulse (800 imp/kWh) - 1,25 varh/ pulse (800 imp/varh)		
Connection Type	2 or 3 elements		
Temperature Range	-10°C to 70°C		
Potential Circuit Consumption	120V or 240V: 2W and 10VA	120V or 240V: 2W and 10VA	Current: < 0,15 VA
Record Type	Three-phase one-way or Two-way (imported and exported power)		
Phase sequence	ABC or CBA		
LCD display	Digit dimensions: 13mm height x 6mm width 6 integers - 5 integers + 1 decimal - 5 integers + 2 decimals (only exports)		
Connectivities	(2) Asynchronous One-way Serial (PIMA serial) / (3) RS-485 Multipoint		
Magnitudes	<p>Normal Mode: (03) Total active power / (24) Inductive reactive power / (31) Capacitive reactive power / (103) Reverse active power / (124) Reverse inductive reactive power / (131) Reverse capacitive reactive power / (88) Display test / (AL) Fraud alarms (Reverse power alarm, Current with no tension alarm, Cover opening sensor, Phase failure alarm, "Watchdog" alarm)</p> <p>Diagnosis Mode: Voltage per phase (L1 – L2 – L3) / Current per phase (A1 – A2 – A3) / Three-phase power factor (FP) / Counter of active power pulses (1P) / Counter of reactive power pulses (2P) / Firmware version (VF)</p>		

LED INDICATORS

- » Operating indicator (default)
- » Active Power Pulse / Reactive Power Pulse
- » No load LED (optional)

ANTI-FRAUD DEVICE

- » Solidarization by ultrasound
- » LED indicating absence of current with voltage (idle run)
- » Cover opening sensor
- » Full-wave rectification (work without neutral phase)
- » Alarm magnitudes

MECHANICAL SPECIFICATIONS

- Main cover:** Polycarbonate
- Block cover:** Polycarbonate (short)
- Base:** Polycarbonate + 10% fiberglass
- Block:** Polycarbonate + 20% fiberglass
- Tin finishing:** Lift cage terminal made by Brass or Aluminium or Steel
- Weight:** 2 elements: 1500g / 3 elements: 1700g
- Dimensions:** 235 mm x 168 mm x 73 mm