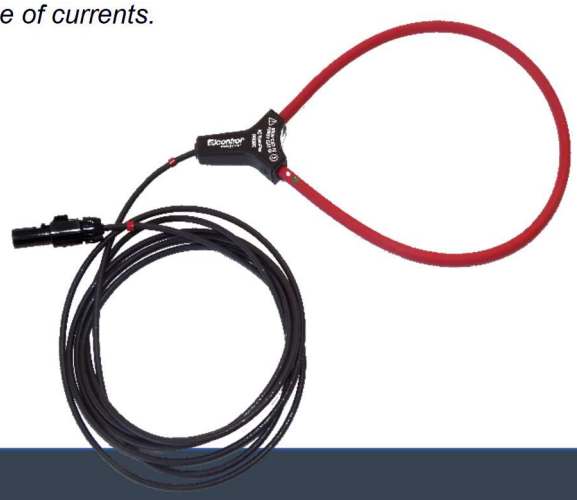
NanoFlex™

Sensori di corrente flessibili basati sul principio dei Rogowski coils, permettono la misura di un ampio range di correnti.
Flexible current sensors based on the Rogowski coils principle, allow the measurement of a wide range of currents.



NanoFlex™ è un sensore di corrente con una parte attiva (bobina Rogowski) caratterizzata da una **elevata flessibilità** che ne permette l'installazione nelle posizioni più impegnative. Il particolare sistema di chiusura ne permette un facile utilizzo anche con i guanti di sicurezza. Non essendo soggette a fenomeni di saturazione magnetica, offrono una **elevatissima linearità**, un **basso sfasamento** e **un'ampia gamma di misura**.

EN **NanoFlex™** is a current sensor with an active part (**Rogowski coil**) characterized by a high flexibility that allows it to be installed in the most demanding positions. The particular locking system allows easy use even with safety gloves. Not subject to magnetic saturation phenomena, they offer a very **high linearity**, a **low phase shift** and a **wide measuring range**.

PRECISA, FLESSIBILE, RESISTENTE, CON UN AMPIO CAMPO DI MISURA

- Utilizzabile su analizzatori della famiglia NanoVIP® senza necessità di alimentazione o amplificazione esterna.
- Dotata di sistema di riconoscimento automatico se utilizzata sui più recenti analizzatori della serie NanoVIP®: TWO™, CUBE™ e QUADRA™
- Cordone di soli 5,5mm di diametro.
- Flessibile e leggera
- Progettato per la misura di correnti alternate in un ampio range di valori: da 6A a 3000A
- Grazie alle sue caratteristiche meccaniche può essere facilmente avvolta in due spire per portarne il range di misura da 3A a 1500A con un aumento della precisione stessa
- Ottima risposta alle rapide variazioni di corrente, non essendo soggetta all'induzione delle correnti di Fourier.
- Altissima linearità dovuta all'assenza di saturazione magnetica anche in presenza di correnti molto alte, come nel caso della trasmissione di energia elettrica, saldatura elettrica o applicazioni che implicano impulsi ad alta potenza
- Il particolare sistema di chiusura ne permette un uso sicuro anche indossando i guanti di sicurezza

FLEXIBLE, PRECISE, STRONG WITH A WIDE RANGE OF MEASUREMENT

- Can be used on NanoVIP® family analyzers without the need for external power supply or amplification.
- Equipped with automatic recognition system if used on the latest NanoVIP® series analyzers: TWO™, CUBE™ and QUADRA™
- Cord only 5.5mm in diameter.
- Flexible and light
- Designed for the measurement of alternating currents in a wide range of values: from 6A to 3000A
- Thanks to its mechanical characteristics it can easily be wound in two turns to bring its measuring range from 3A to 1500A with an increase in precision itself
- Excellent response to rapid changes in current, not being subject to induction of Fourier currents.
- Very high linearity due to the absence of magnetic saturation even in the presence of very high currents, such as in the case of electricity transmission, electric welding or applications involving high power pulses
- The particular closing system allows safe use even when wearing safety gloves

NanoFlex™

ELECTRICAL SPECIFICATIONS[1]:	
Measured range	6A up to 3000A
Operating voltage	600V rms or DC (CAT IV) 1000V rms or DC (CAT III)
Voltage at sensor terminals	39,1µV/A at 50Hz on 10kΩ load
Accuracy	≤ 1 % + 0.3 A (only sensor)
Linearity	<0.3%
Phase shift	-90° ± 0,5° at 50 Hz
Interchangeability error	≤ 0.5% (maximum error between 2 sensor for the same measurement point)
Influence of temperature	0.05%/10 °k from -20 °C to +60 °C
Influence of humidity	0.1% from 10% to 90% RH
Influence of conductor position with non sensor deformation:	≤ 1.5%
Influence of adjacent conductor placed 1cm from sensor:	≤ 0.7% of the adjacent current at 50Hz
Influence of sensor deformation (flattened/oblong shape):	≤ 0.5%
Common mode rejection	≥ 100dB for a voltage of 600V / 50Hz applied between the sensor enclosure and the secondary
[1] Conditions of reference	23 °C ± 5 °K, 20% to 75% RH Continuous external DC magnetic field (earth field) < 40 A/m Absence of external AC magnetic field External electrical field < 1 V/m Position of conductor measured: centred in the measurement coil Shape of measurement coil: quasi-circular Measurement instrument input impedance (oscilloscope) ≥ 1 MΩ Frequency and form of signal measured: 40 to 400 Hz sinusoidal

MECHANICAL SPECIFICATIONS:	
Dimensions	Ø of sensor: 5.5mm approx. Sensor lenght: 600mm Output cable length: 2m
Weight	60g
Operating temperature	-20 °C to +60 °C
Storage temperature	-40 °C to +80 °C
Max temperature of clamped conductor (measured)	≤ 90 °C
Operating altitude	0 to 2000 m (for 600V CAT III)
Storage altitude	≤ 12000m
Casing protection rating (leakproofing)	IP50 according to EN 60529/A1 Ed.06/2000
Self-extinguishing capability	UL94 V0

SAFETY	
Electrical safety	Class II equipment with double or reinforced insulation between the primary and the secondary (winding connected to the connection cable) as per EN 61010-1 & EN 61010-2-032: - 1000V CAT III, pollution degree 2 - 600V ACT III, pollution degree 2 - Type-B sensor