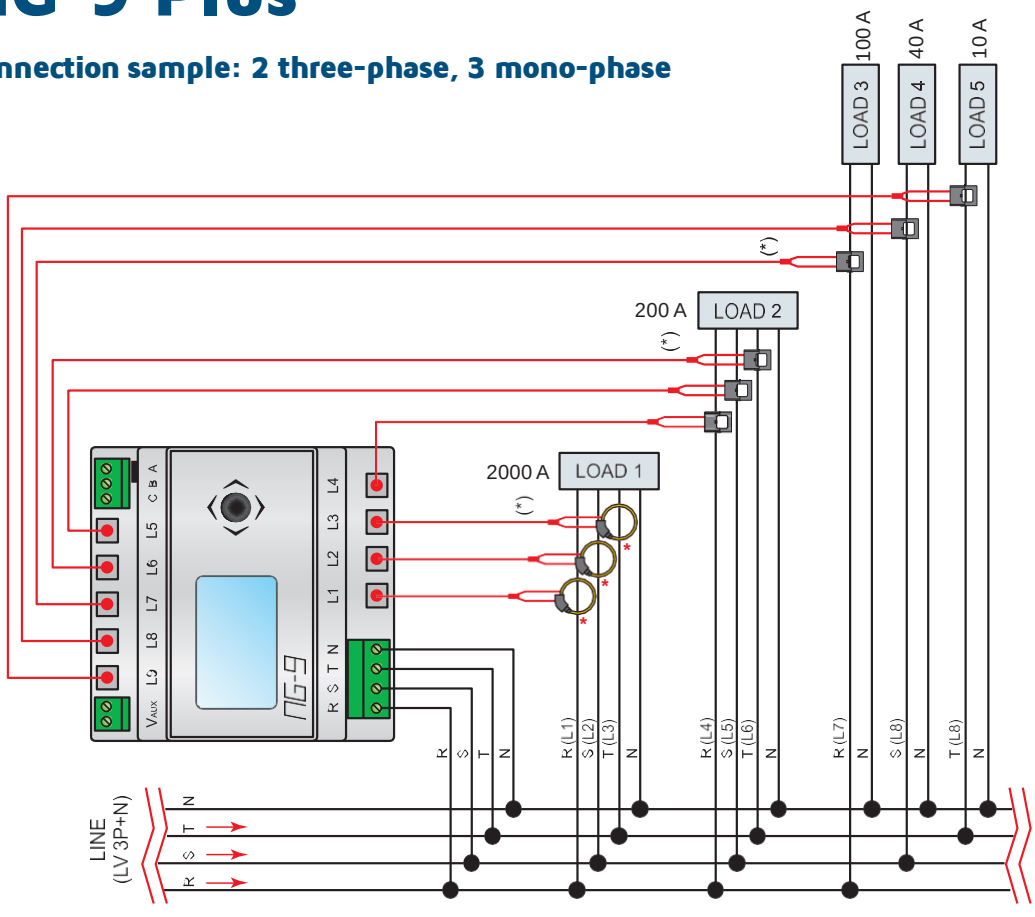
NG-9 Plus

Connection sample: 2 three-phase, 3 mono-phase



Choose your configuration

- 3 three-phase systems
- 2 three-phase, 3 single-phase
- 1 three-phase, 6 single-phase
- 9 single-phase systems

Example of CT's application for secondary current measurement

Inputs	
Voltage	Each voltage input can be matched with a current channel to allow any type of three or single phase measurement
Number of channels	3
Maximum working voltage	430 V swells phase - neutral 300 Vac phase - neutral 520 Vac phase - phase
Current	
Number of channels	9 - Choose among the combination of current sensors listed below; each channel is selectable individually
Accuracy	Class 0,5
Sensor type 1 - Rogowski Sensor RG-2k	
Max. cable external diameter	100 mm
Selectable ranges by Joystick	2000 - 1000 - 400 - 200 - 100 A
Sensor type 1a - Rogowski Sensor RG-4k/ RG-8k	
Diameter	from 200 to 850 mm
End scale	from 4000 to 8000 A
Sensor type 2 - Standard size current clamp	
Cable window	24 mm
Dimensions (LxHxW)	44,5 x 65 x 33,5 mm
Selectable ranges by Joystick	200 - 80 - 40 - 20 A
Sensor type 3 - Miniature size current clamp	
Cable window	16 mm
Dimensions (LxHxW)	30 x 43,5 x 30 mm
Selectable ranges by Joystick	100 - 40 - 20 - 10 A
Sensor type 4 - Mini-transformer (TA) with output voltage	
Cable window	6mm
Dimensions (LxHxW)	16 x 32 x 26,4 mm
Selectable ranges by Joystick	1 - 2 - 5 - 10 A

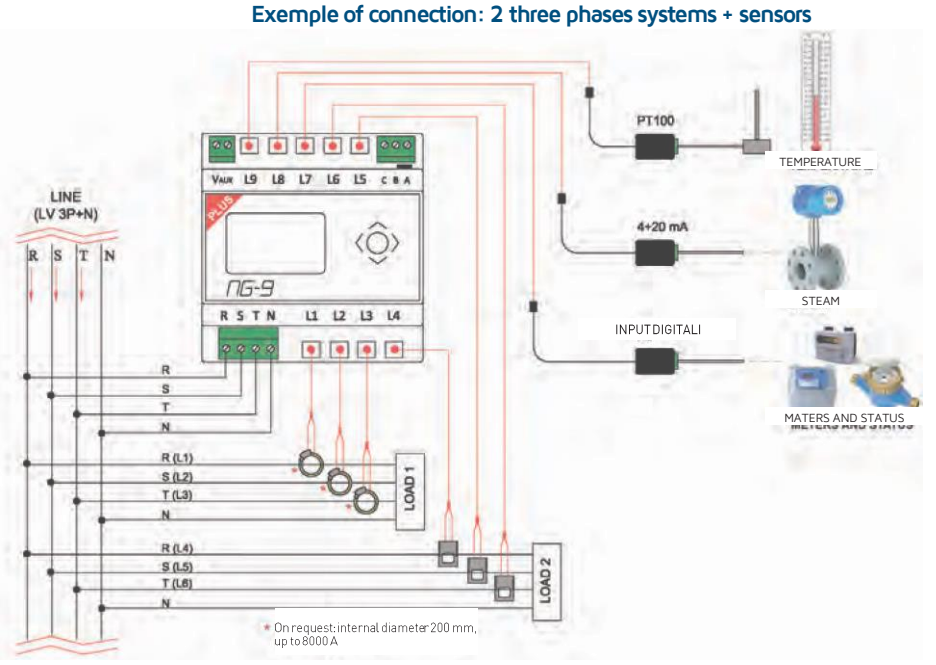
General	
Auxiliary power supply	The device allows AC or DC supply voltage in the limits specified below
AC supply voltage range	90 - 250 Vac 50/60 Hz
DC supply voltage range	24- 120 Vdc
Power consumption	1.5 VA max (ac) or 1.5 W max (dc)
Dimensions	5 DIN modules (approx. 88x90x60mm)
Weight	95 grams without external sensors
Display	128x64 pixels graphic display with multicolour RGB LED background
Keyboard	One 5 functions selector knob
Communication interface	Isolated RS-485 with Modbus RTU protocol, with selectable speed up to 115200 bps and programmable parity
Insulation 6 Kv	between Voltmetric input and Rs 485 and between Aux Alim. and Rs 485
Working temperature	between -10 °C and + 55 °C
Measurements	
Global Measures	Voltage L1-N, L2-N, L3-N, L1-2, L2-3, L3-1 Frequency (measured on Voltage 1 channel)
For each one of the device's 9 channels	Current, Current swells, Active power (bidirectional), Reactive power (bidirectional), Apparent power, Power factor, Working quadrant, Imported Active energy, Exported Active energy, Imported Inductive energy, Imported Capacitive energy, exported Inductive energy, Exported Capacitive energy.
For 3 possible three phase clustering	Equivalent line current, Three phase active power (bidirectional), Three phase reactive power (bidirectional), Three phase apparent power, Three phase power factor, Imported Active energy, Exported Active energy, Imported Inductive energy, Imported Capacitive energy, exported Inductive energy, Exported Capacitive energy.

NG-9 Plus

All the innovative features of NG-9 with new potential

- Connect sensors to acquire Temperature, Status, and Digital signals
- Measure up to the 15° Harmonic and THD on all 3 VOLTAGE channels
- Measure up to the 15° Harmonic and THD on all 9 CURRENT channels

Exemple of connection: 2 three phases systems + sensors



NG sensors

New Generation sensors, available for NG-9 PLUS

NG-AIN

This sensor provides the NG-9 system with an analogic ISOLATED voltage or current Input.

Flow range	±10V, 0-10V, ±20mA, 0-20mA and 4-20mA selectable straight from the instrument
Measure isolation	dielectric strength of 1kV between Input and instrument to simplify use and improve protection against disturbance and the system's overall security
Accuracy	on the entire measuring chain is 0,2% of the reading plus 0,05% of the flow
Measurement field	between 0 and 120% of the flow. Maximum permanent overload capacity 400% of the flow for current measurements and 100V (1000%) for voltage measurements

NG-DIG

This sensor provides the NG-9 system with an ISOLATED Input for digital signal acquisition from passive Outputs (PNP, NPN, OPTOMOS or electromechanical contacts) as well as active AC or DC Outputs from 12 to 110 Vdc or Vac.

Acquisitions	the system can acquire, ON-OFF static signals as well as pulses coming from meters up to 10Hz frequency with a minimum pulse's duration of 5 milliseconds (10 milliseconds for AC Input).
Measure isolation	dielectric strength of 1kV between Input and instrument to simplify use and improve protection against disturbance and the system's overall security

NG-RTD

This sensor provides the NG-9 system with an ISOLATED Input for Temperature measurement with RTD sensors (i.e. PT100). NG-9 PLUS is compatible with PT100 (standard), PT200, PT 500 and PT1000.

Measure isolation	dielectric strength of 1kV between Input and instrument to simplify use and improve protection against disturbance and the system's overall security
Accuracy	on the entire measuring chain is ±0,2% for readings between -100°C and +200°C, with a typical accuracy of ±0,1 % for readings between -20°c and +100°C.