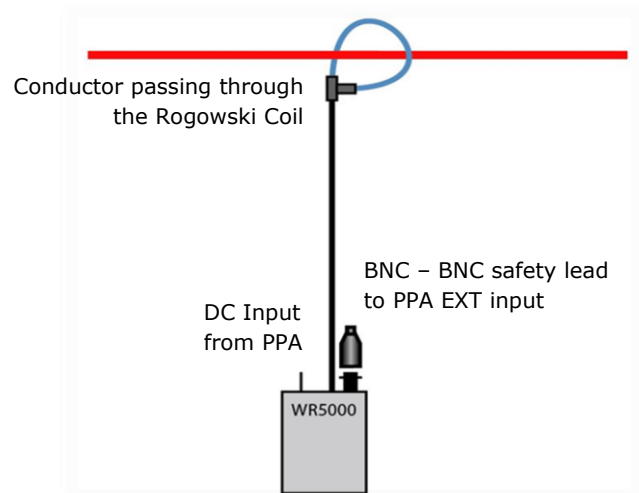


WR5000/WR10000 Rogowski

Specification and connection guide

AC sensing Rogowski current transducers are designed for use with the PPA range Precision Power Analyzers, enabling wide frequency range high current measurement.



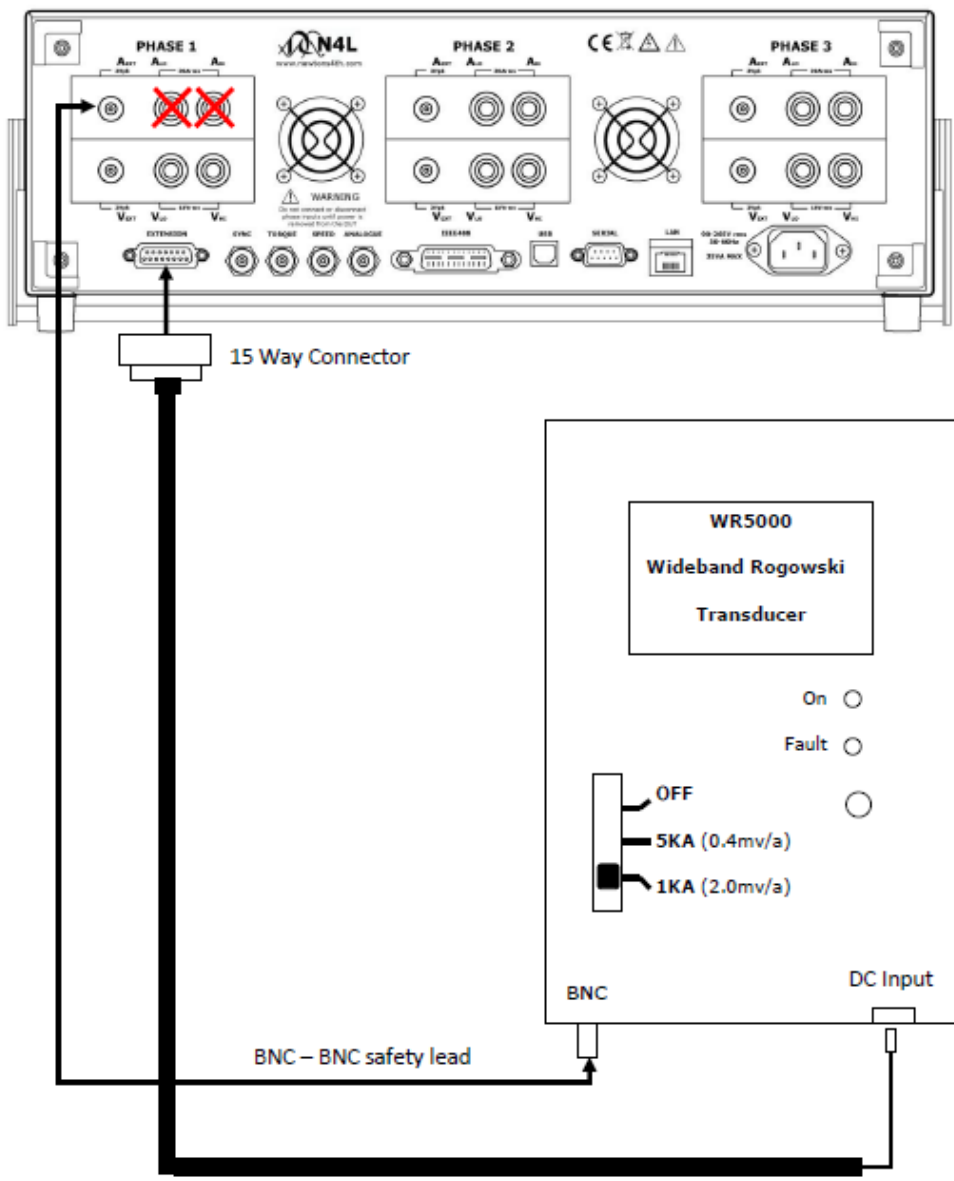
ELECTRICAL DATA

	WR5000	WR10000
Range 1	: 500A AC (2 Turns) 1000A AC (1 Turn)	: 1000A AC (2 Turns) 2000A AC (1 Turn)
Range 2	: 2500A AC (2 Turns) 5000A AC (1 Turn)	: 5000A AC (2 Turns) 10000A AC (1 Turn)
Nominal accuracy*	: ±0.5%	: ±0.5%
Frequency range	: From 1Hz up to 1MHz (-3dB @ 900kHz)	: From 1Hz up to 1MHz (-3dB @ 900kHz)
Continuous over range ability	: 20%	: 20%
Over Current withstand	: 1000%	: 1000%
Measuring range	: 1A to 5kA	: 1A to 10kA
Output signal	: 1A = 2mV/0.4mV	: 1A = 1mV/0.2mV
Working voltage	: 2kV	: 2kV
Peak di/dt	: 500A/μs	: 500A/μs
Temperature range	: -20°C to + 70°C	: -20°C to + 70°C
“Opening” cable	: Circumference 600mm (1 Turn)	: Circumference 600mm (1 Turn)
Integrator Box Dimensions (mm)	: 28 x 65 x 90 mm	: 28 x 65 x 90 mm
Coil to Integrator cable length	: 2m	: 2m
Input Impedance	: 1MΩ	: 1MΩ
Output and power connections	: 1 x BNC per Phase	: 1 x BNC per Phase
Power supply	: N4L PPA 15-way integrated D-Type Port (3 Phase model has D-Type with 3 output leads)	: N4L PPA 15-way integrated D-Type Port (3 Phase model has D-Type with 3 output leads)

*Accuracy can be increased with system calibration or scale correlation – contact N4L for details

WARNING

WR series Rogowski current sensors are powered by the Extension Port of PPA power analyzers, making connection of this accessory simple. The Extension port is grounded, so it follows that the power input to the WR series transducer module and its output are also grounded. When the output of the WR is connected to the PPA EXT input, the low side of the EXT BNC will also become ground potential and this no problem, because the PPA analogue cards are isolated. **HOWEVER, with the analogue current card at ground potential, it is essential that a user NEVER makes direct connection of a DUT to the 4mm direct input current terminals when a WR series Rogowski output is connected to the EXT input BNC, because irreparable damage will occur to both the PPA and WR.**

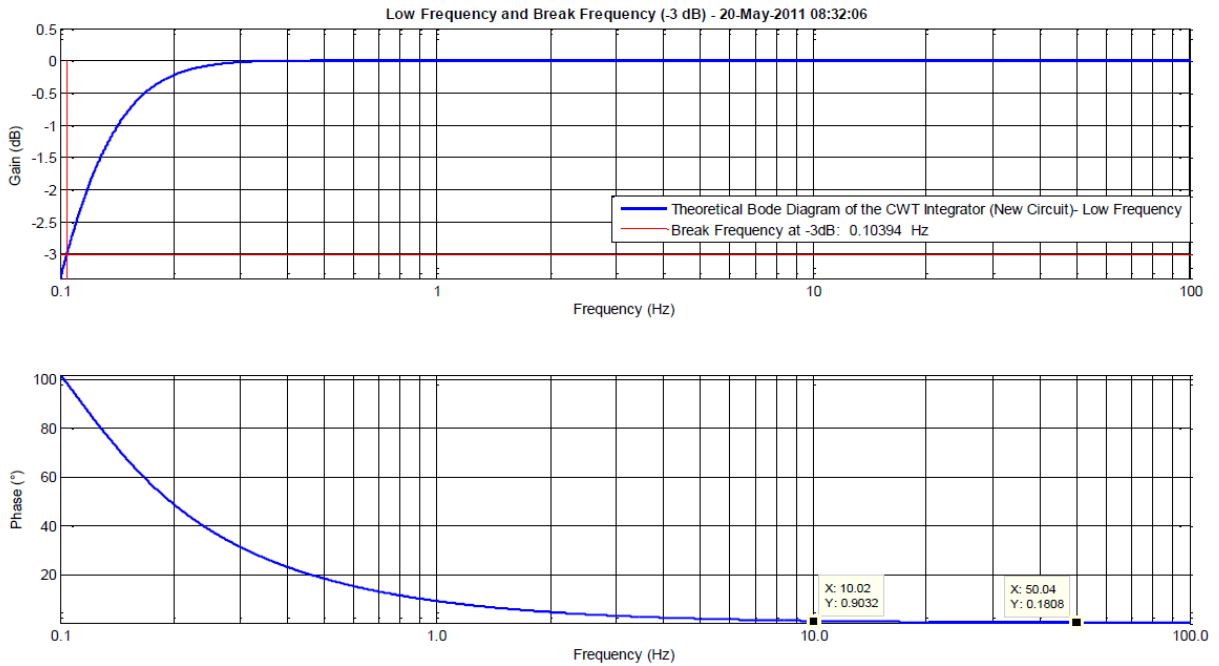


WARNING: Remember to connect either the Internal or External shunt only to the PPA55xx

Typical Frequency Characteristics

Low frequency (-3dB) 0.1 Hz

A simulation of the low frequency bandwidth is included below.



High frequency (-3dB) 900 kHz

A simulation of the high frequency bandwidth is included below.

