

Ultraportable live network LV cable identifier

Electric utilities and their contractors need to identify live electric cables under certain circumstances: when opening a trench, making branch circuits, before and after distribution network maintenance duties, etc.

This identification has to be quick and unambiguous due to possible consequences that could result when choosing the wrong cable (life threat, network failure, etc.).

Ariadna Instruments has developed the IC1G, an ultraportable Cable Identifier which is used in LV distribution cables for positive cable identification.



Signal injection in a power-box using the IC1G transmitter (TX)

The IC1G Cable Identifier consists of a transmitter (IC1G-TX) and a receiver (IC1G-RX).

This equipment is easy to use: the transmitter (TX) is connected to an LV distribution cable and the receiver (RX) is used to identify or locate that cable upstream, towards the MV/LV transformer.

Main features:

- Positive cable identification without de-energizing the line.
- Works on LV distribution cables up to 250 Vac (50 or 60 HZ networks).
- Two different sensors:
 - Sensor Ring:** Identifies cables by placing a sensor ring around the cable (single core cables).
 - “U” sensor:** Identifies conductors by touching the cable (single and multi core cables).
- The identification algorithm works continuously, and positive identification is achieved in seconds.
- Easy to use due to automatic synchronization between transmitter and receiver.

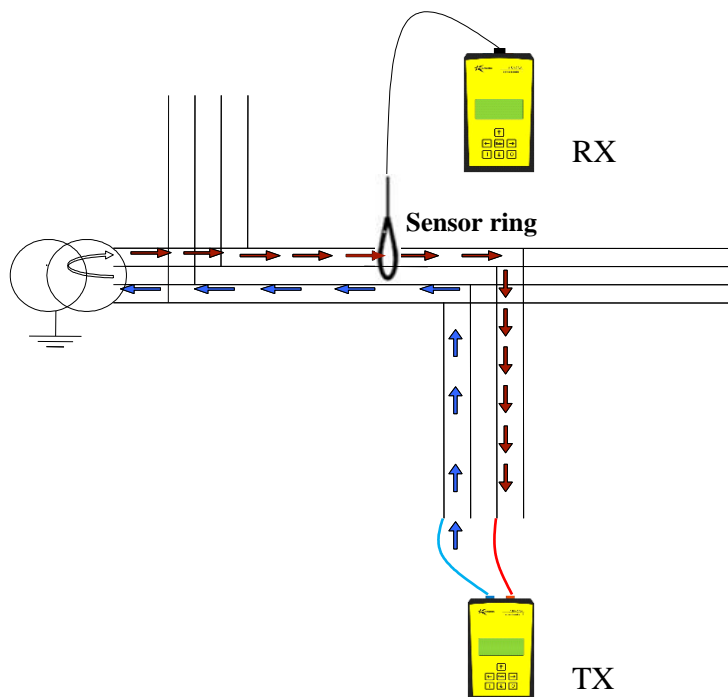


Cable identification in the LV output of an MV/LV transformer using the IC1G receiver (RX)

The graphic display shows voltage at signal injection point (TX), current (RX), received signal polarity (RX) and battery information (TX and RX).

Working diagram

Ariadna IC1G is compliant with EU Low Voltage Directive 72/23/CEE and EN 61010-1 (Safety requirements for electronic equipment for measurement, control and laboratory use).



Technical features

IC1G-TX (Transmitter)		IC1G-RX (Receiver)	
Dimensions (cm):	12 x 22 x 6,5	Dimensions (cm):	12 x 22 x 6,5
Protection:	IP54	Protection:	IP54
Weight:	0,75 Kg	Weight:	0,75 Kg
V working	100-250 Vac (50/60Hz)	Max. passive current (50/60Hz)	250A
V connection max	480 Vac (50/60Hz)	Identification indication:	Acoustic and visual (display)
Power supply:	4x1,5V AA batteries	Power supply:	4 x1,5V AA batteries
Output current:	70 A Peak	Sensors:	Rogowski coil U sensor
Cable length	180 cm		
S.C. protection	6A 10x38 mm fuse		
Working temperature:	-10 °C / 55°C	Working temperature:	-10°C / 55°C

Power cable identification and location solutions