

DETECTING, TRACING AND IDENTIFYING OF POWER CABLES

TECHNICALLY ADVANCED, MODERN&INNOVATION INSTRUMENTS FOR DETECTING UNDERGROUND UTILITIES, TRACING CABLES&PIPES AND IDENTIFYING CABLE LINES



power-arbor.pl

At **Power Arbor**, we integrate well-known and highly valued tools into complete stationary and mobile laboratories.

In the field of mobile tools for servicing extensive cable networks, we manufacture a number of various **measurement vans for voltage and diagnostic testing and cable fault locating.**

We deliver technologically advanced devices supporting the work of laboratories which are necessary for the detection and tracing of cables and pipes as well as modern cable identifiers that provide consistent identification of a wanted cable in an excavation from among other cables. Both existing measurement vans or newly-built ones, can be equipped with the tools described below.

MRT-700 Detecting – tracing set for cables

This modern instrument allows for detection of underground utilities and avoiding collisions during the tracing of cables, pipes and metal conduits. **Advantages:**

- Stable generator of acoustic frequencies
- 0...10 W with three active frequencies
- Network and battery power supply
- Galvanic connection (cables are shutdown off) or inductive connection with transmitting clamp
- High-class receiver, operating in active frequencies mode, 50/60 Hz, RADIO
- Display with compass
- Measurement of cable depth / measurement of current
- 7 sensors / high precision measurement
- Protection rating IP54 / work in all conditions
- Operating temperature -20°C / +55°C
- Weight of receiver 1.5 kg only





FULL mode – highest amount of information, intuitive guidance of an operator along the cable route with automatic amplification

Prepared for work with extensive cable networks

MAX and PROBE modes - detection of penetrating transmitters in PCV and stoneware pipes 8 - 32 kHz



ARIADNA-CI Cable identifier for identification of cables from cable bundles

Identification of cables (for instance, in order to cut the cable in excavation) is a particularly dangerous task. We offer the most modern measurement instruments for identification of shutdown cables and also for those under voltage.

This sophisticated instrument allows for:

- Identification of shutdown MV and LV cables
- Identification of LV cables under voltage

Advantages:

- Connection through clamps for cables under voltage
- Galvanic connection (shutdown cables)
- Identification of single and multi-wire cables
- Detection of signal amplitude and polarisation
- Foolproof, easy and safe identification of cables
- Reduced risk of accidents and power failures

There are situations requiring correct identification

of distribution cables, such as during

reconstruction, branching, fault localization or connecting a new client.

Cutting through the wrong cable can have the following consequences:

- Risk of accident and electric shock,

- Cutting off a customer from an electric power supply





Above: identification of single wire cable with galvanic connection (cable without voltage). Below: identification of single wire cable connected with inductive clamp (cable without voltage, grounded

on both ends)



Above: identification of multi wire cable with galvanic connection (cable without voltage). Below: identification of multi wire cable connected with iductive clamp









Identification of low voltage cable (LV) and medium voltage cable (MV) under voltage

LV

The signal moves from the site of direct connection to the transformer winding.

MV

The signal moves from the place of connection on the LV side through the MV transformer to the winding of the HV transformer.

The only such instrument on the market.

Technical data	MRT-700	Technical data	Ariadna Cl
Purpose	Detection of cables and pipes, tracing of shutdown cables and under voltage	Purpose	Identification of shutdown LV and MV cables and under voltage
Power of generator	Max. 10 W	Type of impulse	Current impulse
Active frequencies For shutdown cables and pipes Galvanic connection	640 Hz 8 kHz 32 kHz Signal direction 320 - 640 Hz	1 – Galvanic connection (or inductive clamp) 2 - Active RMS signal (mA) 3 – Resistance of circuit loop 4 – Battery charge level 5 – Signal level (from 1 to 4) 6 – Work mode	
Active frequencies for shutdown cables and under voltage Inductive connection	8 kHz 32 kHz	1 – Galvanic connection 2 – Network voltage	
Active frequencies for shutdown cables and under voltage Integrated antenna	8 kHz 32 kHz	3 – Battery charge level 4 - ON / OFF. 5 – Work mode	
Passive frequencies	50 Hz 60 Hz RADIO 14 - 27 kHz Penetrating probe 8 or 32 kHz		
FULL mode	Most effective data combination Easy guidance (intuitive efficiency) Line with visualisation of cable route	Mode I/II	Identification of single wire cables without voltage Galvanic connection Identification of single wire cables without voltage Connection with inductive clamp
MAX mode	Indication of maximum signal for cable localization Maximum readout highlighted with red marker	Mode III/IV	Identification of multi-wire cables without voltage Galvanic connection Identification of multi-wire cables without voltage Connection with inductive clamp
PEAK mode	Measurement of maximum signal over the cable, depth measurement and generator current	Mode III/IV	Identification of multi-wire cables without voltage Galvanic connection Identification of multi-wire cables without voltage Connection with inductive clamp
DECAY mode	Measurement of minimum signal over the cable, depth measurement and generator current	Mode V	Identification of LV cables under voltage
PROBE mode	Location of insulated pipe routes using probe 8 or 32 kHz		
Bluetooth	YES		Generator CI-TX / Receiver CI-BX
Mapping into GIS	GridGis Digitize software		Rogowski coil
Accessories	Generator MRT-700 / Receiver MRT-700 Inductive clamp 100mm User Manual Connecting cables/charger Soft transport bag	Accessories	Sensor type 0 Inductive clamp Connecting cables User manual Transport case
Dimensions	86 x 49 x 29 cm	Dimensions	38 x 24 x55 cm
Weight	14,5 kg	Weight	9 kg

THE POWER ARBOR TEAM WELCOMES YOUR COOPERATION!

CONTACT:

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