

DCI3

All-in-one cable and phase identification system

Megger[®]

Reliable cable selection for de-energised and energised cables

- **One set, three jobs**
Cable, phase, and live cable identification
- **Fits your network**
Up to 30 km cables, clamps for large cross-sections and tight cabinets
- **Proven method, clear decision**
Directional DC-pulse, odd-one-out criterion
- **Safety first**
Cable stays always grounded
- **Field-ready**
IP54 weatherproof

Right cable.
Right phase.
Zero doubt.



Reliable cable selection for de-energised & energised cables

For utilities, contractors, rail operators, and industrial sites that need to work safely and efficiently on power cables, the Megger DCI3 is a compact, all-weather cable and phase identification system that delivers reliable results on both de-energised and live cables – in one unit.

DCI3 combines Megger’s proven DC impulse method with new three-phase capability, extended range (up to 30 km), and unique passive/flexible clamps option. This makes identification faster, safer, and possible in more challenging environments – without compromising safety standards.

DCI3 – one transmitter for Cable Identification (CI) and Phase Identification (PI)



CI readout sensors for RX3 receiver

(sensor depending on cable type or user application)



Flexible clamps

Sensor for the DC pulse method (determining current flow direction) – the preferred option for cable identification.



Twisted-field sensor

Should be used when there are two magnetic fields around the cable or if cables are inaccessible for the flexible clamps.



Phase identification sensor

This sensor is used to identify a single phase of a cable, typically at the cable’s end, such as in a transformer sub-station or distribution cabinet.

PI sensors



Passive clamps (standard accessories)

Without internal battery. No power supply needed.



Active clamps (optional)

Flexible clamps for larger cross-sections. Power supply e.g. via power bank (USB-C).

Application areas



Utilities



Industry



Renewables (Solar, Wind, Hydro)



Transportation (Airport, Railway)



Safety – reliable cable and phase identification with grounded cable



Certainty – identification of the correct cable (odd-one-out method)

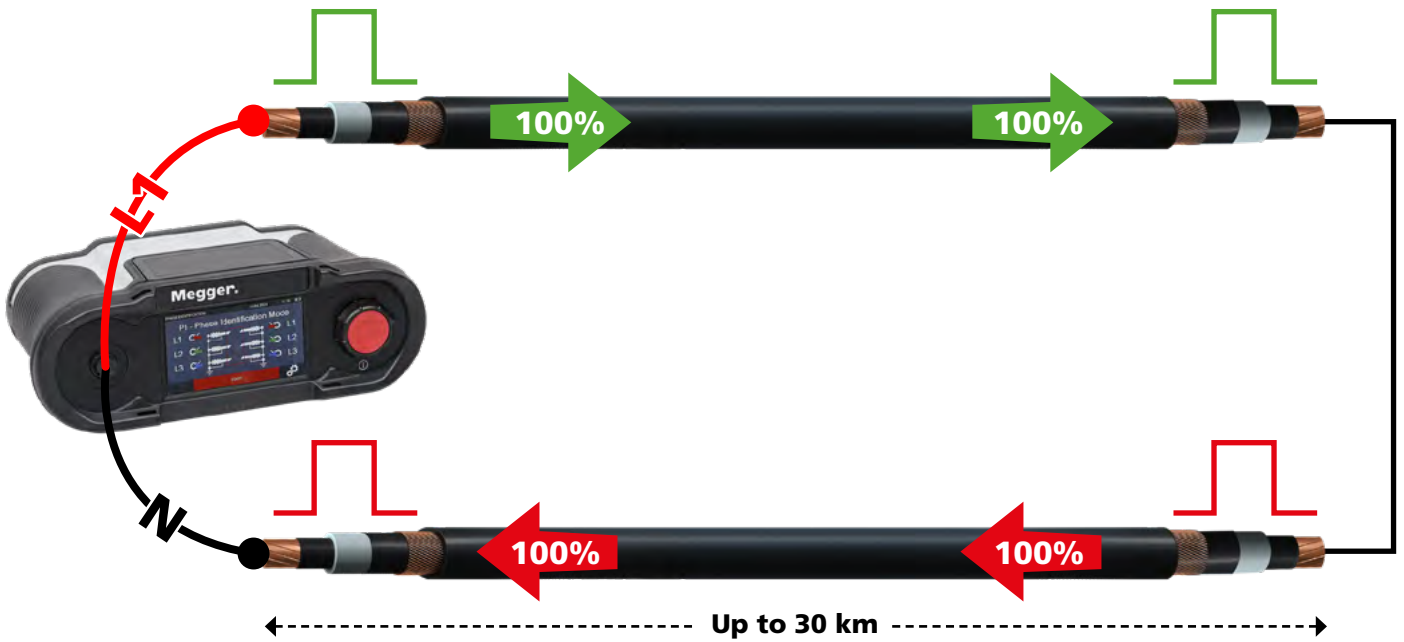


Performance – accurate identification with cable lengths up to 30 km

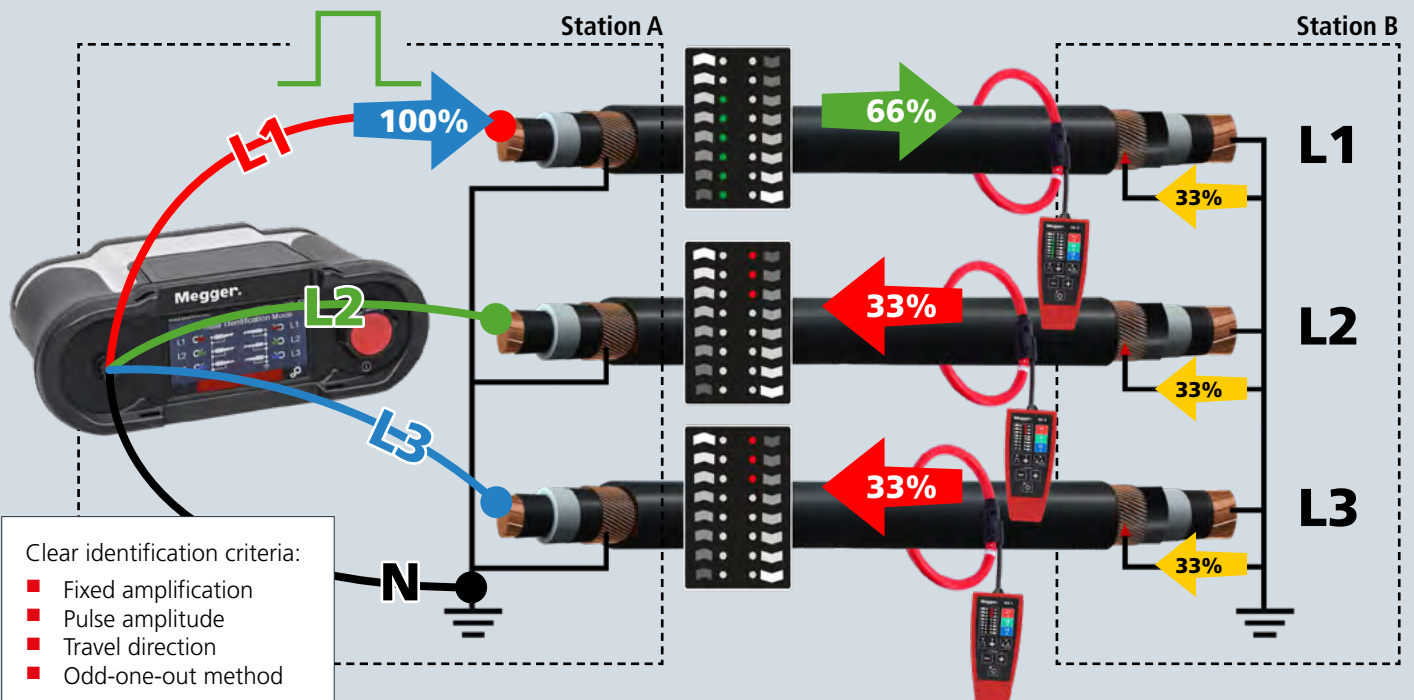
Cable identification – simple & certain

DC pulse method – the most reliable method for cable identification

- Signal travels only over galvanic connections
- Has the same amplitude everywhere
- Allows for direction identification
- Works for all cable system configurations

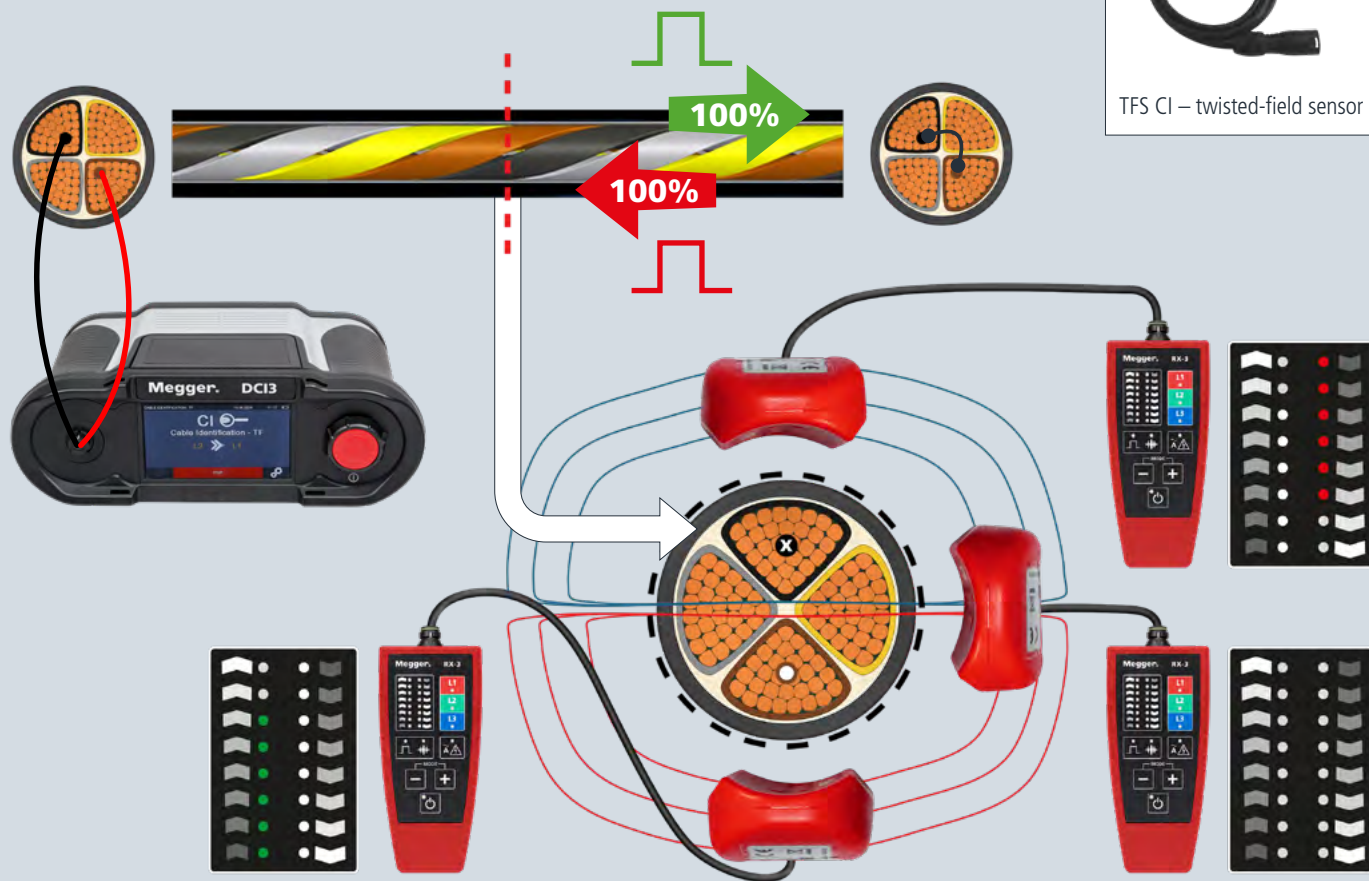


APPLICATION EXAMPLE: 3-phase cable identification mode



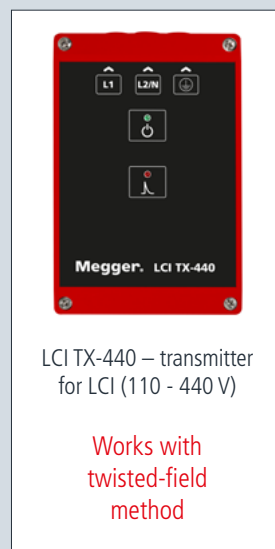
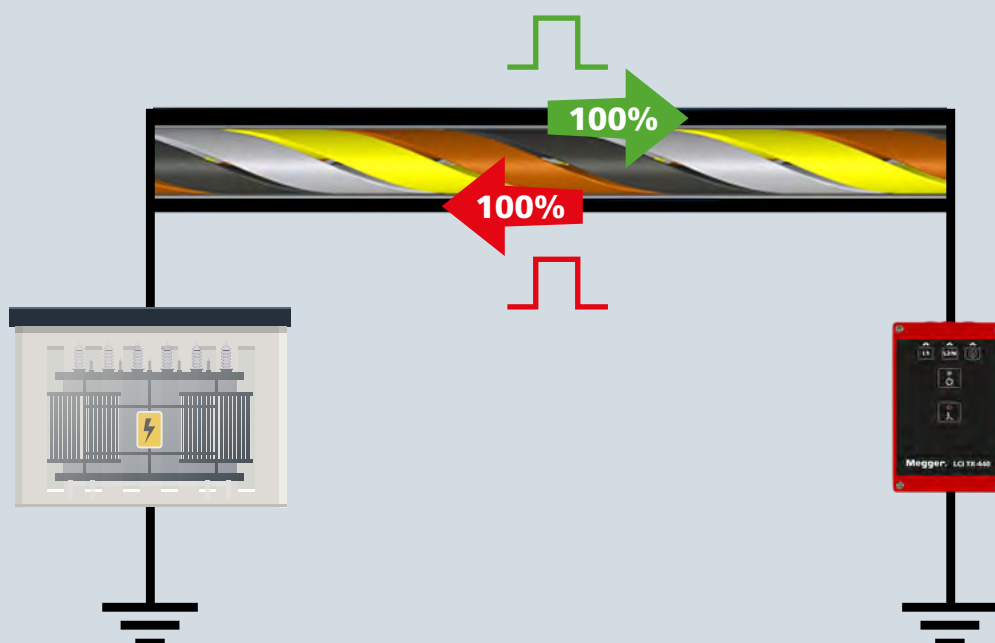
APPLICATION EXAMPLE: Twisted-field method for multi-core cable

- DC pulse injected into 2 twisted cores
- Sharp positive maximum on injected core and negative maximum on return core
- No signal on uninjected conductors



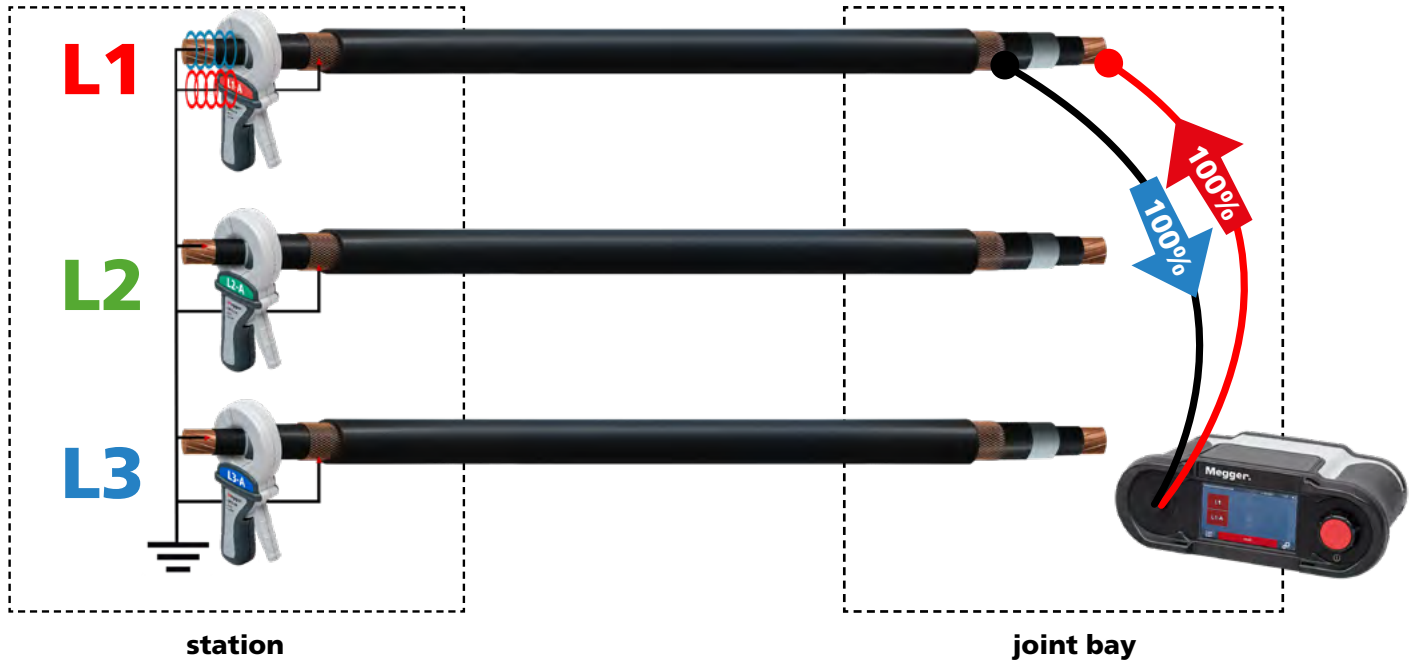
APPLICATION EXAMPLE: Identification on energised LV cable

Identify cables and phases under voltage, up to 440 V where required.

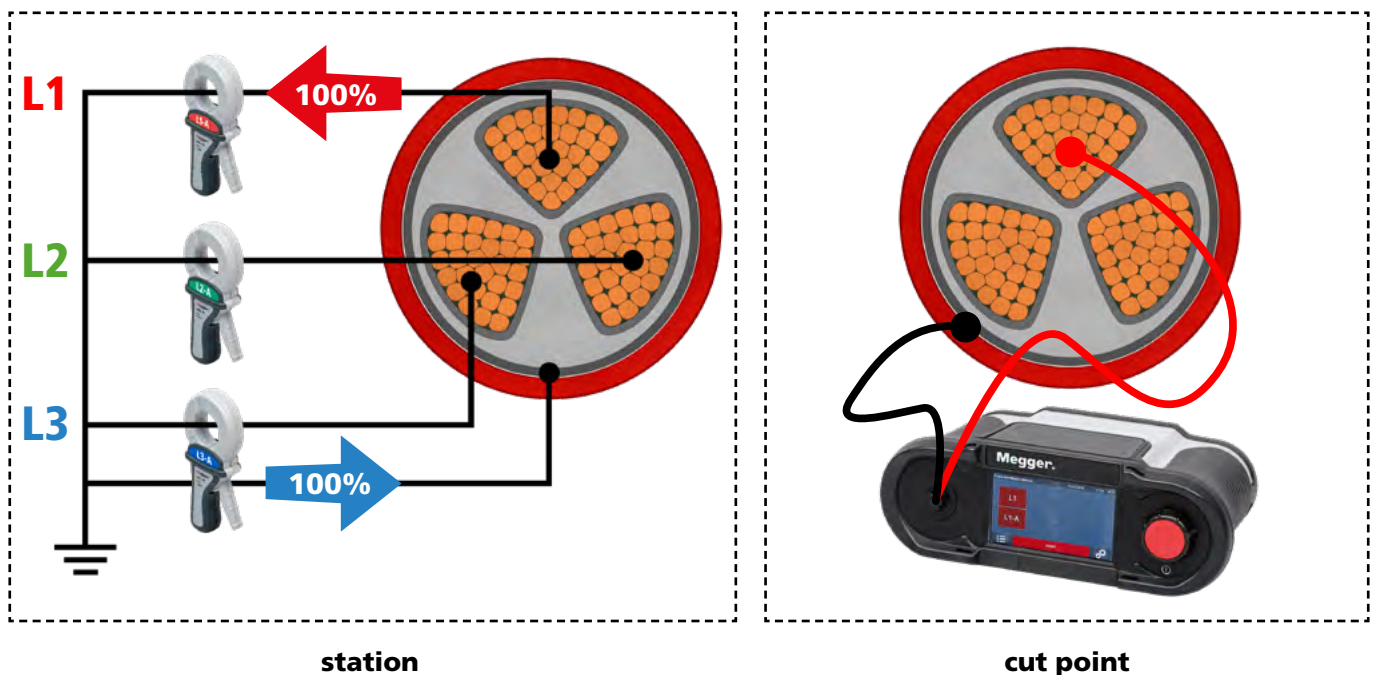


Phase identification – stay grounded, stay safe

At the substation end, passive clamps verify the correct phase while the earth/short remains connected. The PI signal is injected at the joint bay, enabling reliable identification even over long cable runs of up to 30 km.



The transmitter periodically generates alternating current, which creates a magnetic field around the conductor. This magnetic field induces current in the receiver clamp, which charges the clamp. Once this process is complete, the clamp sends a response back to the DCI3 generator. DCI3 decodes the response and displays phase number and clamp set letter.



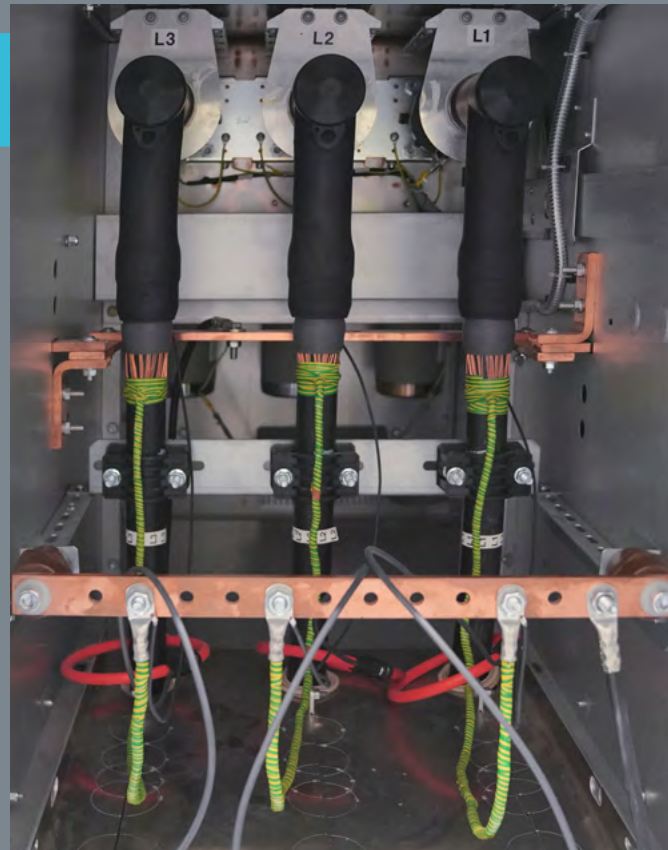
Passive clamps (standard accessories)

- Effortlessly handle cables of up to 30 km
- Inner diameter of 50 mm
- Fully passive clamps (without internal battery): no power supply needed



Flexible active clamps (optional)

- Application range: 15+ km
- Inner diameter of 150 mm
- For cables with large cross-sections
- For tight cabinets
- Power supply e.g. via power bank (USB-C)



DCI3 at a glance

Modes

CI: Cable identification on de-energised cables

PI: Phase identification on de-energised cables

LCI: Cable identification on live LV cables



**DATASHEET AND
ORDER INFORMATION**



**ELEARNING
PLATFORM**

**Training
is the key
to safety**

**Ask for our in-person
and eLearning
courses**



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