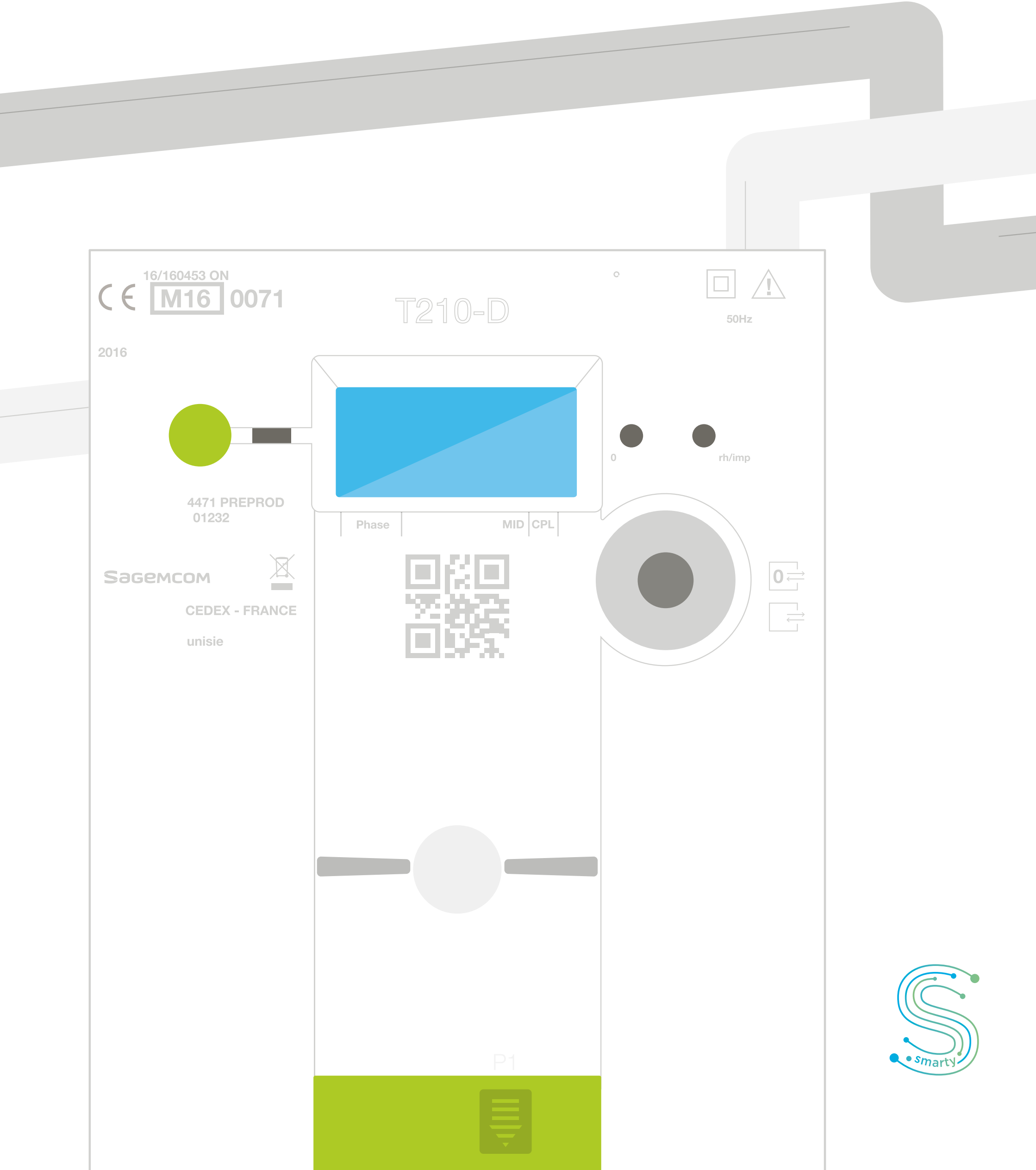
Smarty

PLC Interference



What is it about?

Your household is equipped with a modern smart meter. This digital meter automatically transmits your consumption data through the existing power grid using Power Line Communication (PLC) technology, based on ITU-G.9903 standard.

This enables:

- Accurate and timely billing of your electricity usage,
- Participation in energy communities,
- Flexible tariffs aligned with the energy transition

Data transmission via the power grid can be sensitive to electrical interference. These so-called network disturbances are caused by devices that emit unwanted electromagnetic signals in the 9–500 kHz frequency range.

Such disturbances are not allowed and violate the European EMC Directive (2014/30/EU).

The interference-free operation of your devices is a prerequisite for their authorisation to operate on the electricity grid.

Manufacturers usually guarantee this by issuing a CE declaration of conformity, signified by the CE marking.

However, aging or overload (e.g. from lightning strikes) can damage device components and cause non-compliant emissions. There are also devices without a valid CE mark that cause such unauthorised interference.

Common sources of interference:

- Plug-in power supplies (e.g. routers, audio systems, chargers)
- Heating system controllers
- TV-SAT multiswitches
- LED light bulbs
- (PV) inverters with or without battery storage
- Heat pumps

For more information, visit: creos.net/smarty

What needs to be done?

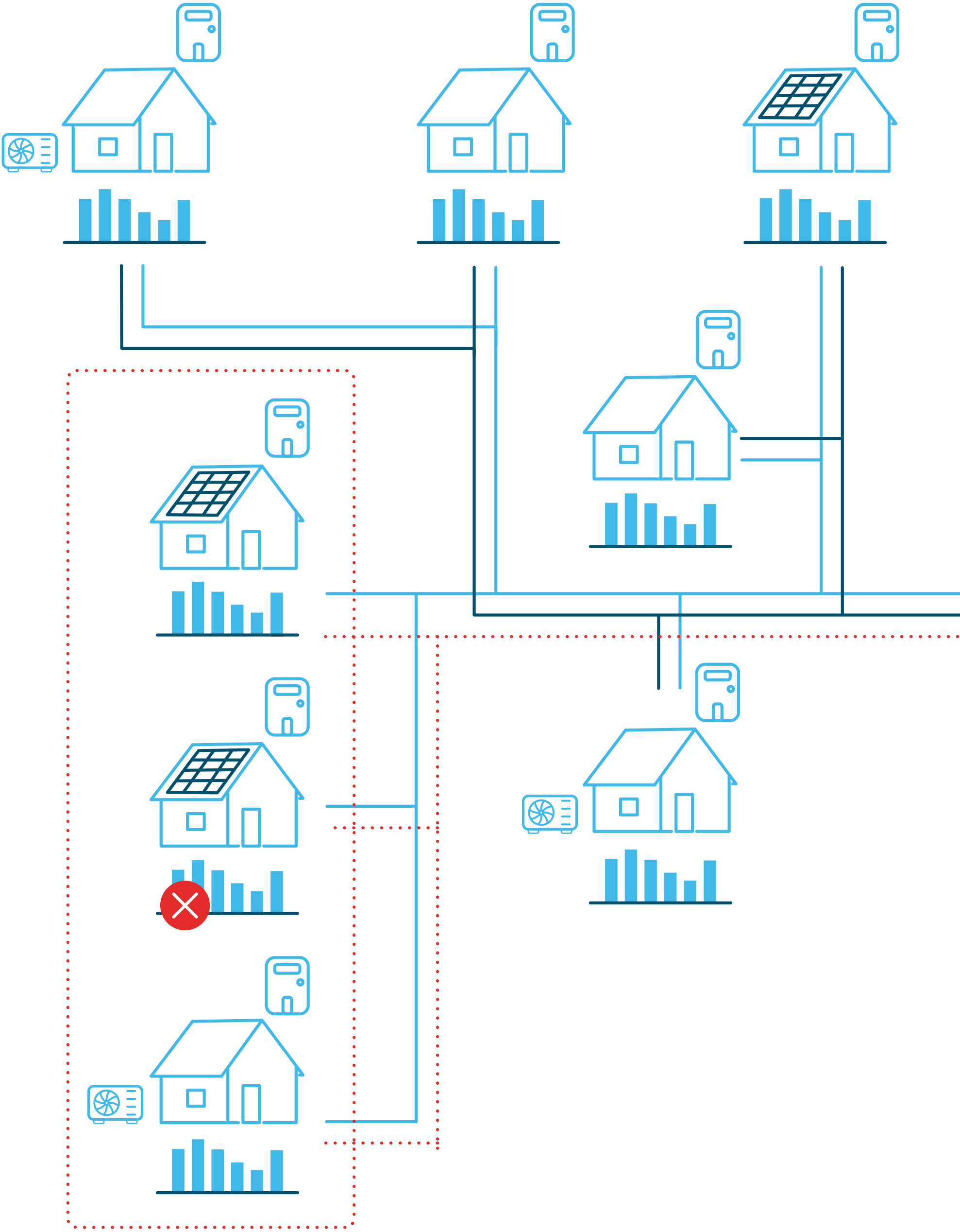
Creos offers special on-site measurements to identify the source of interference. These appointments are completely free of charge.

The transmission issue must be resolved within 4 weeks by one of the following actions:

- Replacing the affected device with a CE-compliant one
- Repairing the device
- Switching off or decommissioning the device

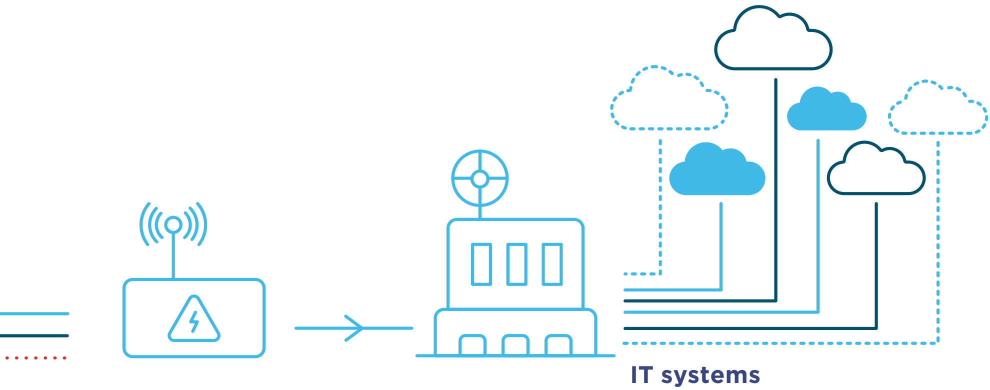
Note

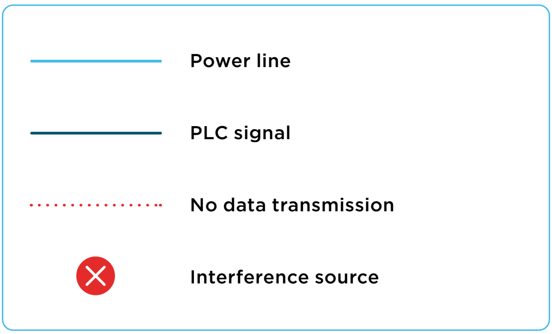
If a device in your home emits non-compliant electromagnetic signals, it can disrupt the PLC signal not only in your home but also for other households on the same power line. Please refer to the graph on the next pages.



Disturbance Diagram – Disturbed Signal (example)

In this example, the PLC transmission signal is disrupted due to an out-dated power supply or a similar issue, which prevents the downstream smart meters from sending their data packets.





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