# ■ MPHASE – 1-69 kV

# Wireless phase comparator

#### **STANDARD**

IEC 61481-1 (2014) Live working – Phase comparators - Part 1: Capacitive type to be used for voltages exceeding 1 kV a.c.

**CE**: Compliance with European directives.

#### **USE**

- MPHASE is designed to carry out phase comparison between two MV circuits of a Three Phase system before connection.
- · Each units of the set can be used for checking Voltage Presence

# ADVANTAGES

- Light and compact unit that can be used safely for outdoor (overhead lines) and indoor (substations) operations.
- Positive indication for "in phase" conditions
- Voltage presence indication
- Indication of active radio link between the 2 units

#### The wireless concept provides:

- Better safety by suppression of cable link hazard
- Better distance range between test points (more than 25m)
- Possibility of phasing through walls (for instance between substation bus bars and overhead cable terminals)

# Enhanced indication that can be clearly noticed in most working conditions:

- The visual indication is visible in all usual working environments, from sunlight to fog, with a wide angle of visibility and from the side thanks to an optic ring.
- The 100 dB (1m) sound signal is designed to remains audible even in heavy traffic or strong wind, thanks to its acoustic "horn".

# Thanks to the direct access to the battery and sealed electronics compartment, the battery replacement will prevent from :

- Accidental interchange of housing or circuitry,
- Damage to electronic circuits,
- Humidity ingress into the device when the battery is replaced outdoors.



# **TECHNICAL SPECIFICATIONS**

AC voltage range: 1 to 69 kV

Network frequency: 50 and 60 Hz

- Permanent standby status with automatic wake-up function
- Transmitter (T): grey housing
   The presence of voltage is indicated by an intermittent RED light and a beeping sound then transmits phase information to the receiver.
- Receiver (R) : blue housing

The presence of voltage is indicated by intermittent *RED* lights (2LED) and a beeping sound, and phase concordance is indicated by **solid** *RED* lights (4 LED) and a steady sound

- Indication of the radio link by a BLUE light indication
- HF radio transmission operating at 433.9 MHz
- Minimum distance range in open air 25 m
- Self test checking all measuring circuits, phasing functions, radio link and battery level
- A low battery level is indicated by an ORANGE light
- Designed for outdoor and indoor use
- Operating temperature: -25 ° C to +55 ° C
- Humidity: 96 % max.
- Power supply voltage: 9 V alkaline cell IEC 6LR61 (1 by module)
- Accepts the use of rechargeable battery with identical supply voltage
- Polycarbonate housing
- Dimensions of each module : Ø 59 mm, L = 280 mm without the Y contact electrode nor electrode extension
- Net weight of each module: 0.390 kg with stick adaptor
- Operating manual with a choice of languages, depending on the package.













# Version with electrode extension

# **USE**

- Electrode extension for testing through access holes
- Indoor and outdoor use

# ADVANTAGES

- Allows access to live phases without opening the cubicle substation.
- Minimum insertion diameter of 40 mm

### TECHNICAL SPECIFICATIONS

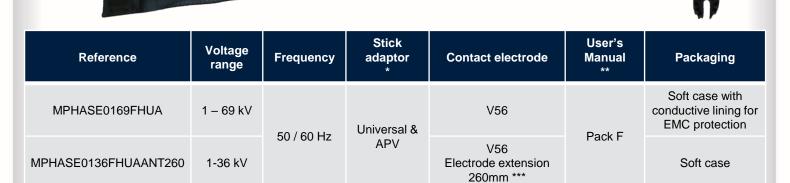
Voltage range : 1 - 36 kV max.

Insertion depth : 260 mm, 400 mm, 600 mm and 900 mm

Electrode : V56 fixed

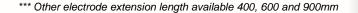
Sturdy insulated tube : Ø 15 mm





<sup>\*</sup> Other stick adaptor available on required

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<sup>\*\*</sup> Pack F: FR/GB/DE/ES/PT/PL -- Pack G: GB/GR/NL/BG/IT/AR/TR