

Megger[®]

PSI410

Phase Sequence Indicator

User manual

SAFETY WARNINGS

Safety warnings must be read and understood before instrument is used. The following safety information must be observed to insure maximum personal safety during the operation of this instrument:

- Do not use in wet environments.
- It is recommended that wherever possible isolate the circuit to be tested while connecting and disconnecting test leads.
- Test leads and prods must be in good order, clean, and with no broken or cracked insulation.
- Replacement test lead fuses must be of the correct type and rating.
- This instrument must not be used if any part of it is damaged.
- The unit is for intermittent tests only, it must not be used for continuous monitoring of phase rotation.
- Warnings and precautions must be read and understood before an instrument is used. They must be observed during the operation of this instrument.

Note: This instrument must only be used by suitably trained and competent persons

CATIV - Measurement category IV: Equipment connected between the origin of the low-voltage mains supply outside the building and the consumer unit.

CATIII - Measurement category III: Equipment connected between the consumer unit and the electrical outlets.

CATII - Measurement category II: Equipment connected between the electrical outlets and the user's equipment.

INTRODUCTION

The Megger PSI410 phase rotation indicator provides rapid indication of correct phase sequence utilising a three dual coloured sequencing LED display and a specific audible tone.

To avoid the display rotating at the supply frequency the unit has been designed to provide a slow rotational speed of the display to allow easy indication of rotation.

Dual phase colour coding has been adopted for the PSI410 to allow ease of use on both Brown / Black / Grey and Red / Yellow / Blue colour coded supplies.

The PSI410 also features a triple dual coloured LED display that indicates that all three phases are present.

INSTRUCTIONS

As both croc clips and prods are supplied with the unit, select the preferred method of the connection and connect to the test leads. The croc clip option will allow isolation of the supply during connecting and disconnecting the test leads.

The dual coloured LED display at the top of the PSI410 indicates the state of each of the connected phases with a green coloured LED indicating the phase is present while a red coloured LED shows a missing phase connection. This feature enables a graphic display of a good connection when using the test prod option and will indicate a phase which has a substantial lower voltage than the other two phases.

Connect the test leads following the circuit's applicable cable colour code and once all three phases are connected observe the direction of rotation and colour on the sequencing LED display on the PSI410.

Clockwise rotation is indicated by clockwise rotating green LEDs with a continuous tone and counter clockwise rotation has counter clockwise rotating red LEDs and a warbling tone. If a failure of the rotating displays is observed then check the test lead connection while monitoring the phase status LEDs.

The unit is for intermittent use only and must not be permanently connected to the supply.

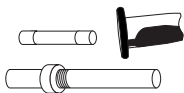
WEEE Directive

The crossed out wheeled bin symbol on the instrument and on the batteries is a reminder not to dispose of them with general waste at the end of their life.

Megger is registered in the UK as a Producer of Electrical and Electronic equipment. The registration no is; WEE/DJ2235XR. Users of Megger products in the UK may dispose



of them at the end of their useful life by contacting B2B Compliance. Users of Megger products in other parts of the EU should contact their local Megger company or distributor.



Fuse replacement

Remove the croc clip or probe tip; unscrew the top section of the probe to access fuse and replace with correct replacement (F500 mA 600 V HBC 50 kA).

REPAIR AND WARRANTY

The instrument contains static sensitive devices, and care must be taken in handling the printed circuit board. If an instrument's protection has been impaired it should not be used, but sent for repair by suitably trained and qualified personnel. The protection is likely to be impaired if for example; it shows visible damage; fails to perform the intended measurements; has been subjected to prolonged storage under unfavourable conditions, or has been subjected to severe transport stresses.

Note: Any unauthorised prior repair or adjustment will automatically invalidate the warranty.

INSTRUMENT REPAIR AND SPARE PARTS

For service requirements for Megger instruments contact Megger Limited or an approved repair company.

Returning and Instrument for Repair

If it is necessary to return an instrument for repair, a Returns Authorisation number must first be obtained by contacting one of the addresses shown. You will be asked to provide key information, such as the instrument serial number and fault reported when the number is issued. This will enable the Service Department to prepare in advance for the receipt of your instrument, and to provide the best possible service to you.

The Returns Authorisation number should be clearly marked on the outside of the product packaging, and on any related correspondence. The instrument should be sent, freight paid to the appropriate address. If appropriate a copies of the original purchase invoice and of the packing note, should be sent simultaneously by airmail to expedite clearance through customs.

For instruments requiring repair outside the warranty period a repair estimate will be submitted to the sender, if required, before work on the instrument commences. The instrument is designed for use indoors or outdoors and is rated to IP54.

SPECIFICATIONS

Rotation display:	3 x red / green LEDs
Phase connection status indication:	3 x red / green LEDs Phase present indication = 195 to 265 V
Audible rotation tone:	Clockwise rotation = continuous tone Counter clockwise = warble tone (0.4 s on / 0.4 s off)
Maximum voltage (phase to phase):	500 V
Frequency:	50 Hz +/- 1 %
Phase colour coding:	L1 (Brown / Red) L2 (Black / Yellow) L3 (Grey / Blue)
Power supply:	Power drawn from a minimum of two phases connected in any position
Operating ambient:	5 ° - 40 °C < 80 % RH
Storage temperature:	0 - 40 °C
Safety:	The instrument complies with IEC61010-1:2010 CATIV 600 V
Ingress Protection:	IP 54
Safety rating of croc clips and prods:	CAT IV 600 V
Dimensions (W x H x D):	78 mm x 137 mm x 31 mm
Test lead length:	830 mm
Test lead fuse rating:	SIBA 10 A 600 V
Weight:	850g
Usage:	The PSI410 is suitable for intermittent tests only and should not be used for continuous monitoring of phase rotation



The company reserves the right to change the specification or design without prior notice.

Megger is a registered trademark. Made in China

Part No. PSI410_UG_en-fr-de-es-nl_V04

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