Bedienungsanleitung
Operating Instructions

GOSSEN METRAWATT

COIL ADAPTER XTRA

Messadapter zur Windungsschlussmessung
Measuring Adapter for Inter-Turn Short Circuit Measurements

3-447-065-15
2/4.20

Safety Instructions

Observe this documentation, in particular all included safety information, in order to protect yourself and others from injury, and to prevent damage to the device.

- Carefully and completely read and adhere to these operating instructions, as well as the documentation for the respective measuring instrument.
  The respective documents can be found at http://www.gossenmetrawatt.com.
  Retain these documents for future reference.
- Tests may only be performed by a qualified electrician, or under the supervision and direction of a qualified electrician.
  The user must be instructed by a qualified electrician concerning performance and evaluation of the test.
- Wear suitable and appropriate personal protective equipment (PPE) whenever working with the device.
- If the device doesn't function flawlessly, remove it from operation and secure it against inadvertent use.
- The device may only be used as long as it's in good working order.
  Inspect the device before use. Pay particular attention to damaged housings, broken insulation around the sockets and kinked cables.
- Use the device only in measuring category O.
  (It may not be used in measuring categories II, III or IV.)
  Inter-turn short circuit measurements may thus only be conducted at voltage-free coils.
- Do not use the device in potentially explosive atmospheres.
- The device must not be exposed to direct sunlight.
- Do not use the device after long periods of storage under unfavorable conditions (e.g. humidity, dust or extreme temperature).
- Do not use the device after extraordinary stressing due to transport.
- If the device is damaged during use, for example if it's dropped, remove it from operation permanently and secure it against inadvertent use.
- The device is a measuring accessory in accordance with IEC 61010–031 / DIN EN 61010–031 / VDE 0411–031 and may only be used for this purpose.
- Only inductances/coils may be connected to the device's measuring sockets.
- Beware of dangerous voltage at exposed motor connections!
  Always connect all three motor connections to the device at the same time when conducting measurements at 3-phase motors.
- Beware of dangerous voltage at transformers!
  Depending on the transformation ratio, high voltages may occur at the output side of the transformer during inter-turn short circuit measurements.
- Never touch the conductive ends of the test probes.
- Perform measurements with the help of self-retaining contacts (e.g. alligator clips).
  Danger of fatal injury exists if the contacting elements slip off!
  Poor contact may result in sparking.
- Never activate the rotary switch or the rocker switch during a measurement – danger of injury! The device may also be damaged or destroyed.

Meanings of Symbols on the Device

Warning concerning a point of danger
(Attention, observe documentation!)

Attention!

Do not connect any external voltage to the connector sockets.

European conformity marking

The device may not be disposed of with household trash
⇨"Returns and Environmentally Sound Disposal" 🗎6.

Intended Use / Use for Intended Purpose

The **COIL ADAPTER XTRA (Z270M)** permits inter-turn short circuit measurements in combination with the following multimeters:
METRA HIT IM XTRA (M273A/D/W)*
METRA HIT IM E-DRIVE (M274A/B) *

By comparing measurement results, asymmetries at the windings of 3-phase machines can be directly detected and conclusions can be drawn regarding possible inter-turn short circuits.

Use for Other than Intended Purpose

Using the device for any purposes other than those described in these condensed operating instructions, or in the operating instructions for the respective measuring instruments, is contrary to use for intended purpose.

Liability and Guarantee

GMC-I Messtechnik GmbH assumes no liability for property damage, personal injury or consequential damage resulting from improper or incorrect use of the product, in particular due to failure to observe the product documentation. Furthermore, all guarantee claims are rendered null and void in such cases.

Scope of Delivery

1 COIL ADAPTER XTRA

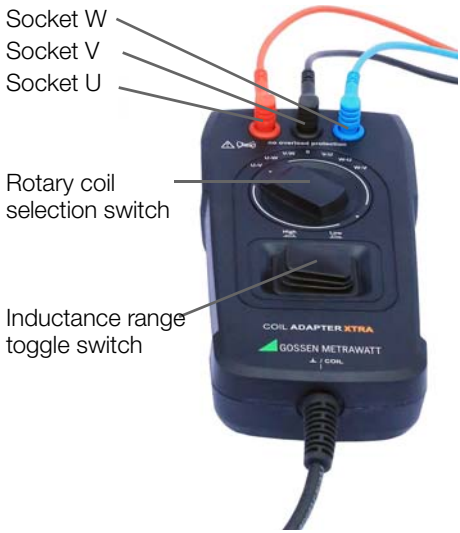
Optionally available: HIT CLIP (Z117A) magnetic holder and Velcro fastener

Technical Data

Protection:	IP 52
Accuracy range:	0 °C…+40 °C
Operating temperature:	-10 °C…50 °C
Relative atmospheric humidity:	40 to 75%
Elevation:	To 2000 m
Intrinsic uncertainty, time value:	1% rdg. ± 10 d†
Resolution:	0.1 µs (both measuring ranges)

†. The time value may vary by up to 10% for different COIL Adapter XTRAs. This is entirely without consequence if you perform measurements with the same COIL Adapter XTRA and compare them.

Device Overview



* As of firmware version 1.003.000

Performing Measurements

Refer to the respective operating instructions for the above listed multimeters for instructions on how to set up the measuring circuit and perform measurements, as well as concerning safety precautions which must be complied with.

Toggle switch

Switch settings for inductance ranges (100 Hz):

- 5 mH to 5 H: **High**
- 10 µH to 50 mH: **Low**

The COIL ADAPTER XTRA (Z270M) is universally suitable for many electric machines with various power ratings.

Power range switch settings for motors per DIN standard (3-phase, 400 V):

- Approx. 0.16 kVA to 160 kVA: **High**
- Approx. 15 kVA to 80 MVA: **Low**

Maintenance

The COIL ADAPTER XTRA (Z270M) doesn't require any special maintenance. Keep outside surfaces clean.

Use a slightly dampened cloth for cleaning.

Attention!

Avoid the use of cleansers, abrasives or solvents.

Product Support

If required please contact:

GMC-I Messtechnik GmbH

Product Support Hotline

Phone: +49-911-8602-0

Fax: +49-911-8602-709

e-mail: support@gossenmetrawatt.com

Repair and Replacement Parts Service Calibration Center and Rental Instrument Service

If required please contact:

GMC-I Service GmbH

Service Center

Beuthener Str. 41
90471 Nürnberg, Germany

Phone: +49 911 817718-0

Fax: +49-911-817718-253

e-mail: service@gossenmetrawatt.com

Web: www.gmci-service.com

This address is only valid in Germany. Please contact our respective representatives or subsidiaries for service in other countries.

Returns and Environmentally Sound Disposal

This device is subject to directive 2012/19/EC on Waste Electrical and Electronic Equipment (WEEE) and its German national equivalent implemented as the Waste Electrical and Electronic Equipment Act (ElektroG) on the marketing, return and environmentally sound disposal of electrical and electronic equipment.

The symbol at the left indicates that this device must be disposed of in accordance with applicable legal regulations, and not together with household trash. In order to dispose of the device, bring it to a designated collection point or contact our product support department (⇨🗎6).

Separate disposal and recycling conserves resources and protects our health and the environment.

Current and further information is available on our website at http://www.gossenmetrawatt.com under the search terms "WEEE" and "environmental protection".