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**ZERA**

**MT400**  
**Product Catalogue**

Doc.No: 100352706  
Version from: 01.07.2022

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**Device**



**Three phase current source MT400**

Including adjustment.  
The portable source MT400 provides current for on site testing of meter installations with low voltage.

- Supplied via test voltage or mains voltage
- Current generation up to 12 A
- Synchronization of the test currents on the grid voltage phases of the meter under test.
- Balanced/Unbalanced load conditions
- Individual phase angle setting
- Vector display of generated and measured values

Ord.No. **100248105**

**Factory Calibration for New Instrument**



**Factory Calibration for NEW MT400, 50 Hz**  
incl. ZERA calibration report.

Ord.No. **100519710**

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**

Summary of used load points can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration for NEW MT400, 60 Hz**  
incl. ZERA calibration report.

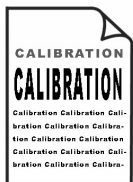
Ord.No. **100519711**

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**

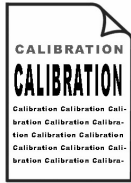
Summary of used load points can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration for instrument, each additional load point for power and energy**

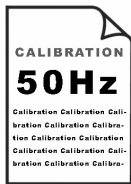
Ord.No. **100007093**



**Factory Calibration**  
for instrument, each additional  
load point for current and/or voltage

Ord.No. **100007094**

**DAkKS DKD-Calibration for Instrument**

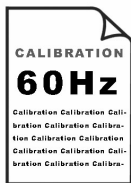


**DAkKS DKD-Calibration for MT400, 50 Hz**  
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **100519612**

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.

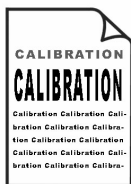


**DAkKS DKD-Calibration of MT400, 60 Hz**  
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **100519613**

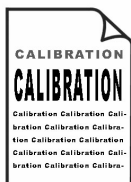
**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**DAkKS DKD-Calibration (acc. IEC 17025)**  
for instrument, each additional  
load point for power and energy

Ord.No. **100006893**



**DAkKS DKD-Calibration (acc. IEC 17025)**  
for instrument, each additional  
load point for current / voltage

Ord.No. **100006894**

## Power Cords



### Power cord "Euro plug type C to figure-of-eight", 2.0 m

For supply via mains supply.

- 1x Euro plug type C (CEE 7/16)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100067700**



### Power cord "Plug type A to figure-of-eight", 2.0 m

For supply via mains supply.

- 1x Plug type A
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100277201**



### Power cord "Plug type G to figure-of-eight", 2.0 m

For supply via mains supply.

- 1x Plug type G (BS1363)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100277200**



### Power cord "Plug type I to figure-of-eight", 2.0 m

For supply via mains supply.

- 1x Plug type I (AS/NZS 3112, 2-pin)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100277202**



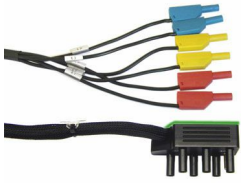
### Power cord "stackable safety plug (black) to figure-of-eight", 2.0 m

For supply via test voltage.

- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (2x black)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100067608**

## Quick Connection Cable (see also Special Accessories)

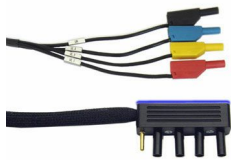


### Quick connection cable "current/rigid sleeve" for source, MT series, sloped, 2.5 m, phase colours: red/yellow/blue

Ord.No. 100023452

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 6-pin connector with anti-twist safeguard, 30° sloped.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x red, 2x yellow, 2x blue.
- Cable cross-section: 2.5 qmm



### Quick connection cable for "voltage/rigid sleeve" for MT series, 2.5 m, phase colours: red/yellow/blue/black

Ord.No. 100023454

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x red, 1x yellow, 1x blue, 1x black
- Cable cross-section: 2.5 qmm



### Quick connection cable "voltage/rigid sleeve" for source-instrument, MT series, 2.5 m, phase colours: red/yellow/blue/black

Ord.No. 100023456

For the connection of source and reference standard if they are used as separate devices.

Cable length between the devices is 1.65 m.

- Reference standard's side :
  - 1x 4-pin connector with anti-twist safeguard.
  - 1x 4-pin connector (slim) without anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x red, 1x yellow, 1x blue, 1x black
- Cable cross-section: 2.5 qmm



### Quick connection cable "current/rigid sleeve" for source-instrument, MT series, 2.5 m, phase colours: red/yellow/blue

Ord.No. 100023455

For the connection of source and reference standard if they are used as separate devices.

Cable length between the devices is 1.65 m.

- Instrument's side:
  - 1x 6-pin connector with anti-twist safeguard.
  - 1x 6-pin connector, 30° sloped, with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x red, 2x yellow, 2x blue.
- Cable cross-section: 2.5 qmm

## Current and Voltage Cables (see also Special Accessories)



### Laboratory cable with stackable plug, red, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00007597**



### Laboratory cable with stackable plug, yellow, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006907**



### Laboratory cable with stackable plug, blue, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00007598**



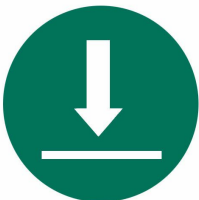
### Laboratory cable with stackable plug, black, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006910**

## Software



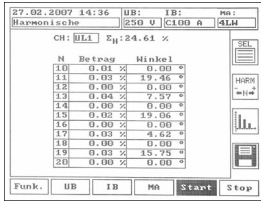
### Software SSM3000 / MTVis

The software runs under Windows 7 or 10.

- SSM3000: For external control via PC.
- MTVis: To readout and display saved data.

The software can be downloaded at [www.zera.de](http://www.zera.de).

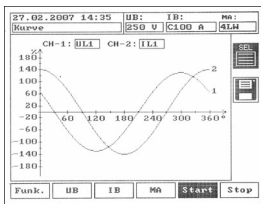
Ord.No. **100090720**



**Software option for harmonic measurement, MT400/MT500**

The harmonic measurement displays the value and angle of each single harmonic (voltage and current) up to the 40<sup>th</sup> in a chart or a diagram. Additionally the sum of all harmonics is displayed.

Ord.No. **100078830**



**Software option for curve display, MT400/MT500**

For simultaneous display of two curves (voltage and/or current measurement channels). Via the curve display you can see at a glance if the fundamental frequency differs from the sinus curve.

Ord.No. **100078831**

**Connectors (see also Special Accessories)**



**Accessories bag with connection adapters**

- |   |           |
|---|-----------|
| 01 Accessories bag                                      | 100214400 |
| 03 Spring clip  | 100606750 |
| 04 4 mm plug adapter (banana plug)                      | X00004962 |
| 06 Adapter for terminal blocks                          | 101584400 |
| 10 Connecting terminals for current                     | X00011923 |
| 03 4 mm test clips (crocodile clips), slim              | X00009329 |
| 10 Fuse, 16 A / 500 V, 6.3 mm x 32 mm, very fast acting | M00460189 |
| 10 Fuse, 6.3 A / 500 V, 6.3 mm x 32 mm, time-lag        | 100358600 |

Ord.No. **100023726**

**Transport (see also Special Accessories)**



**Transport Case for MT400 / MT500, with cable case**

Aluminum case with inlet from rigid foam, designed for

- 1 Instrument
- Accessories

Overall dimensions: 44 cm x 47 cm x 25 cm (H x W x D)

Ord.No. **100023960**

*Please clarify whether the case size is suitable for the ordered accessories.*



**Transport Case for MT400 / MT500**

Aluminum case with inlet from rigid foam, designed for

- 1 Instrument

Overall dimensions: 37 cm x 45 cm x 25 cm (H x W x D)

Ord.No. **100023961**



### Transport Bag for MT400 / MT500

Nylon bag which is special designed for the instrument.  
The bag protects against dust and scratches.  
The bag is designed for:

- 1 Instrument

Overall dimensions: 34 cm x 29 cm x 23,5 cm (H x W x D)

Ord.No. **100062802**



### Accessories bag

Nylon bag with inlet from rigid foam, designed for

- Test leads
- Scanning head
- Current clamps
- Etc.

Overall dimensions: 41 cm x 31 cm x 16 cm (H x W x D)

Ord.No. **100148209**

*Please clarify whether the bag size is suitable for the ordered accessories.*

## Standard Accessories (see also Special Accessories)



### Interface cable, RS232, crossed wired (null modem cable)

Connection cable

- 2x D-Sub socket, 9-pin
- Cable length: 3.00 m

Ord.No. **X00010844**



### Protection cover for MT series 3xx/400/500

To protect the front plate against mechanical collision during transport without transport case.

Ord.No. **100466700**



### Coaxial cable with BNC plug, 2 m

- 2x BNC plug

Ord.No. **Z09548320**



## Documentation



Complete documentation as pdf files on USB Stick

Ord.No. 100090716

## Special Accessories

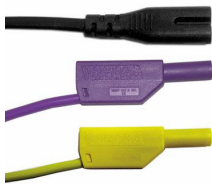


Power cord “stackable safety plug (black/yellow) to figure-of-eight”, 2.0 m

For supply via test voltage.

- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (1x black; 1x yellow)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. 100067601



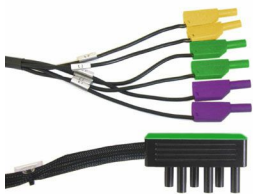
Power cord “stackable safety plug (violet/yellow) to figure-of-eight”, 2.0 m

For supply via test voltage.

- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (1x violet/1x yellow)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. 100067602

## Special Accessories (Quick Connection Cable)

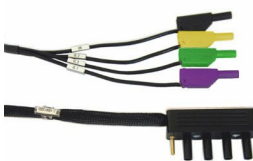


Quick connection cable for “current/rigid sleeve” for MT series, 12 A, 2.5 m, phase colours: yellow/green/violet

To prevent connecting faults on the instrument’s side.

- Instrument’s side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve - 2x yellow, 2x green, 2x violet.
- Cable cross-section: 2.5 qmm

Ord.No. 100023476

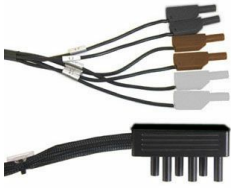


Quick connection cable for “voltage/rigid sleeve” for MT series, 2.5 m, phase colours: yellow/green/violet/black

To prevent connecting faults on the instrument’s side.

- Instrument’s side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x yellow, 1x green, 1x violet, 1x black
- Cable cross-section: 2.5 qmm

Ord.No. 100023418

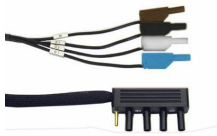


**Quick connection cable “current/rigid sleeve” for MT series, 12 A, 2.5 m, phase colours: black/brown/white**

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x black, 2x brown, 2x white
- Cable cross-section: 2.5 qmm

Ord.No. **100023493**

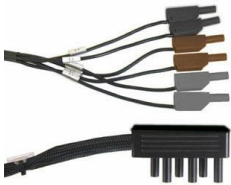


**Quick connection cable “voltage/rigid sleeve” for MT series, 2.5 m, phase colours: brown/black/white/blue**

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x brown, 1x black, 1x white, 1x blue
- Cable cross-section: 2.5 qmm

Ord.No. **100023492**



**Quick connection cable “current/rigid sleeve” for MT series, 12 A, 2.5 m, phase colours: black/brown/grey**

**Reference meter > Unit under test.**

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x black, 2x brown, 2x grey
- Cable cross-section: 2.5 qmm

Ord.No. **100023474**

## Special Accessories (Current and Voltage Cables)



**Laboratory cable with stackable plug, green, 2.0 m**  
Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006908**



- Laboratory cable with stackable plug, violet, 2.0 m**  
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **X00006909**



- Laboratory cable with stackable plug, brown, 2.0 m**  
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **100414100**



- Laboratory cable with stackable plug, grey, 2.0 m**  
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **100739800**



- Laboratory cable with stackable plug, white, 2.0 m**  
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **100662500**

## Special Accessories (Connectors)



- Connecting terminals for current**
- Insulating screw joint for flexible wire connection  
max cable size 1,5 ... 16 mm<sup>2</sup>
  - Socket: 4 mm rigid socket in insulator accepting  
spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00011923**



#### Adapter for terminal blocks

- Connection via insulated flexible copper conductor.
- Socket: 4 mm rigid socket in insulator, made of brass, accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00004961**



#### 4 mm plug adapter (banana plug)

- Plug: 4 mm spring-loaded plug, made of brass.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00004962**



#### 4 mm cable lug adapters

- Cable lug adapter, made of brass for permanent installation, e. g. for connecting screw terminals.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00004963**



#### Spring clip

- Connection via spring clip.
- Socket: spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **100606750**



#### Test plugs for terminal blocks

- Plug: 4 mm test plug, made of brass with spring-loaded plug for connecting into rail mounted terminals with 4 mm sockets.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **100102400**



#### 4 mm test clips (crocodile clips), wide

- Crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00010059**



#### 4 mm test clips (crocodile clips), slim

- Small, slim crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.
- 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00009329**



#### Accessories bag without content

DIN A6, material: polypropylene

Ord.No. **100214400**

#### Fuse, 16 A / 500 V, 6.3 mm x 32 mm, very fast acting

Ord.No. **M00460189**



#### Fuse, 6.3 A / 500 V, 6.3 mm x 32 mm, time-lag

Ord.No. **100358600**



**Special Accessories (General)**



**Adapter "USB to RS232" (32/64 bit), 1.5 m**  
 For use with an external PC/Notebook (32/64 bit) with WINDOWS OS (7, 8, 10).

Ord.No. **101421801**

**Readjustment (only for Service)**



**Adjustment of MT400**

*Note:* Calibration and Calibration report are not included.

Ord.No. **100033898**

**Factory Calibration (only for Service)**



**Factory Calibration for MT400, 50 Hz**  
 incl. ZERA calibration report.

Ord.No. **100519712**

**Load points according to ZERA regulations.**  
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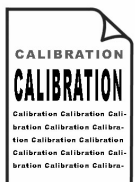


**Factory Calibration for MT400, 60 Hz**  
 incl. ZERA calibration report.

Ord.No. **100519713**

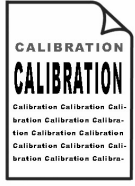
**Load points according to ZERA regulations.**  
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Additional load points are subject to charges.



**Factory Calibration for instrument, each additional load point for power and energy**

Ord.No. **100007093**



**Factory Calibration  
for instrument, each additional  
load point for current and/or voltage**

Ord.No. **100007094**

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## Notes on using the product catalogue

When ordering, always state the order number.

Pictures can differ from original product.

We follow ZVEI terms of delivery, see on [www.zera.de](http://www.zera.de)