

# **ZERA**

# MT36x Product Catalogue

Doc.No: 100352704 Version from: 01.01.2023

### **Device**



# MT365 Three Phase Reference Meter CATIII

Inclusive adjustment for one mains frequency.

Ord.No.

MT365 is light weight and compact reference meter for on-site verification and calibration of single or three phase meters.

Test voltage and test current for the Reference Meter will be measured at mains on-site or can be generated and measured via external source (optional). (e.g. MT3000[Q] / MT551, MT500 / MT400)

MT365 is designed for testing of max. 1 test specimen.

#### Configuration:

- Direct current measurement up to 300 V / 12 A
- Accuracy for power/energy measurement: < ±0.05 %</li>
- 6,4" TFT colour display
- Wide range of accessories (optional)



# MT365 Three Phase Reference Meter CAT IV Inclusive adjustment for one mains frequency.

MT365 is light weight and compact reference meter for on-site verification and calibration of single or three phase meters.

Test voltage and test current for the Reference Meter will be measured at mains on-site or can be generated and measured via external source (optional). (e.g. MT3000[Q] MT551, MT500 / MT400)

MT365 is designed for testing of max. 1 test specimen.

#### Configuration:

- Direct current measurement up to 300 V / 12 A
- Voltage input designed for protection class CAT IV
- Accuracy for power/energy measurement: < ±0.05 %</li>
- 6,4" TFT colour display
- Wide range of accessories (optional)

Ord.No.

101204600



# MT360 Three Phase Reference Meter CATIII

Inclusive adjustment for one mains frequency.

Ord.No.

101204300

101204400

MT360 is light weight and compact reference meter for on-site verification and calibration of single or three phase meters.

Test voltage and test current for the Reference Meter will be measured at mains on-site or can be generated and measured via external source (optional). (e.g. MT3000[Q] MT551, MT500 / MT400)

MT360 is designed for testing of max. 1 test specimen.

#### Configuration:

- Direct current measurement up to 300 V / 12 A
- Accuracy for power/energy measurement: < ±0.1 %</li>
- 6,4" TFT colour display
- Wide range of accessories (optional)



# MT360 Three Phase Reference Meter CAT IV

Inclusive adjustment for one mains frequency.

*MT360* is light weight and compact reference meter for on-site verification and calibration of single or three phase meters.

Test voltage and test current for the Reference Meter will be measured at mains on-site or can be generated and measured via external source (optional). (e.g. MT3000[Q] MT551, MT500 / MT400)

*MT360* is designed for testing of max. 1 test specimen.

#### Configuration:

- Direct current measurement up to 300 V / 12 A
- •Voltage input designed for protection class CAT IV
- Accuracy for power/energy measurement: < ±0.1 %</li>
- 6,4" TFT colour display
- · Wide range of accessories (optional)

# **Factory Calibration for New Instrument**



Factory Calibration for NEW MT3xx series, 50 Hz incl. ZERA calibration report.

Ord.No.

Ord.No.

100007055

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.



### Factory Calibration for NEW MT3xx series, 60 Hz incl. ZERA calibration report.

Ord.No.

100007056

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.

for instrument, each additional

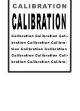
load point for power and energy

Additional load points are subject to charges.



Ord.No.

100007093



**Factory Calibration** for instrument, each additional

load point for current and/or voltage

Ord.No.

Ord.No.

100007094



CALIBRATION

# **DAkkS DKD-Calibration for Instrument**



# DAkkS DKD-Calibration for MT3xx, 50 Hz

incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. 100006838

# Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

# Additional load points are subject to charges.



### DAkkS DKD-Calibration for MT3xx incl. current clamp MT3460, 50 Hz

incl. DKD-Calibration Certificate acc. IEC 17025

# Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.



# DAkkS DKD-Calibration for MT3xx, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No.

100006854

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.



# DAkkS DKD-Calibration for MT3xx incl. current clamp MT3460, 60 Hz

Ord.No.

101173920

incl. DKD-Calibration Certificate acc. IEC 17025

# Load points according to ZERA regulations.

Summary of used load points can be downloaded at 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 "Plug type A to figure-of-eight", 2.0 m

Ord.No.

100277201

For supply via mains supply.

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



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

Ord.No.

100067700

For supply via mains supply.

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



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

Ord.No.

100277200

For supply via mains supply.

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



# 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

# **Current Clamps (see also Special Accessories)**



# MT3460, AC current clamp set

Electronically compensated, calibration independent from the instrument.

Ord.No.

- Clamping diameter: 16 mm
- Output: D-Sub plug 25-pin
- Measuring range: 5 mA ... 120 A
- Error of measurement:
  - < ±0.15% @ 500 mA ... 120 A
  - < ±0.3% @ 100 mA ...< 500 mA
- Frequency range: 45 ... 65 Hz
- Measuring Category: CAT IV 300 V /CAT III 600 V



### MT3416, AC current clamp set 300 A cable length: 2 m

Ord.No. 100319200

Electronically compensated, calibration independent from the instrument.

- Clamping diameter: 52 mm
- Output: D-Sub plug 25-pin
- Measuring range: 100 mA ... 300 A
- Error of measurement:
  - $< \pm 0.15 \% / < 0.1^{\circ} (1 A ... 300 A)$
- < ±0,3 % / < 0,1° (500 mA ... 1 A) < ±0,6 % / < 0,15° (200 mA ... 500 mA)
- Frequency range: 45 ... 65 Hz
- Rated voltage: 600 V, CAT III / 300 V, CAT IV

# Factory Calibration for NEW Current Clamps



Factory Calibration for NEW MT3460 / MT3465, 50 Hz incl. ZERA calibration report.

Ord.No.

101242308

100519702

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.

Additional load points are subject to charges.



CALIBRATION 60Hz Factory Calibration for NEW MT3416 / MT3417, 50 Hz

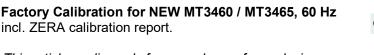
Ord.No. incl. ZERA calibration report.

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.

Additional load points are subject to charges.



Ord.No. 101242309

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.



# Factory Calibration for NEW MT3416 / MT3417, 60 Hz incl. ZERA calibration report.

Ord.No.

100519705

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.

Additional load points are subject to charges.



Factory Calibration for current clamps, each additional load point for for power and energy

Ord.No.

100007092

# **DAkkS Calibration for Current Clamps**



DAkkS DKD-Calibration for MT3460 / MT3465, 50 Hz

incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. 101173912

# Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.



DAkkS DKD-Calibration for MT3416 / MT3417, 50 Hz

Incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. 100519600

### Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.



DAkkS DKD-Calibration for MT3460 / MT3465, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **101173913** 

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.



# DAkkS DKD-Calibration for MT3416 / MT3417, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No.

100519603

100006892

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.

Ord.No.

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DAkkS DKD-Calibration (acc. IEC 17025) for current clamps, each additional load point for power and energy

# Quick Connection Cable (see also Special Accessories)



Quick connection cable "current/rigid sleeve" for MT series, 12 A, 2.5 m, phase colours: red/yellow/blue

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 red, 2x yellow, 2x blue.
- · Cable cross-section: 2.5 qmm

Ord.No. 100023411



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

To prevent connecting faults on the instrument's side. Measurement category III (CAT III).

- 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 CAT IV for "voltage/rigid sleeve" for MT series, 2 m, phase colours: red/yellow/blue/black

Ord.No. 100023483

Ord.No.

To prevent connecting faults on the instrument's side. Measurement category IV (CAT IV).

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

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



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

X00007597

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



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 gmm

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 gmm

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





### CAT IV Laboratory cable max. 12 A, 2.0 m

- 2x 4 mm plugs (non-stackable) with rigid insulating sleeve
- · Lead cross section: 1 qmm
- Phase colours: Please specify the colour code when ordering

The cables will get a corresponding coloured marking.

20=black-white, 21=black, 22=red, 23=blue,

24= yellow, 25=green, 26=violet, 27=brown,

28=grey, 29=white

xx please select the colour

Ord.No. 1014308xx

#### 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.

Ord.No. 100090720



#### Software option for selective power measurement MT681/MT680s/MT78x/MT36x

To determine and display active, reactive and apparent power on each harmonic value up to 40<sup>th</sup>.

Ord.No. 100078860



### Software option "Automatic Measurement" for MT365/MT3000

This software option requires a complete test system, consisting of reference meter and source Creating and executing of test sequences which enables the system to test meters in a fully automatically mode. An external PC is not required.

Test sequences and results will be stored on the USB stick.

# Impulse Sensor (see also Special Accessories)



#### TK118, scanning head

For detection of LED signals of electronic meters.

 Fixing: Via provided suction cup or via optionally available stretchable holding device for scanning heads TK326/TK118. Ord.No. 100201900



### TK326-1, scanning head without holding device

For detection of rotor disc markings on Ferraris meters and LED signals on electronic meters.

• Fixing: Via stretchable holding device for scanning heads TK326/TK118.

Ord.No. **101064901** 



### Holding device for scanning head TK326/ TK118

Stretchable holding device to fix the scanning head TK326 or TK118 at the electricity meter.

• Maximum wingspan: 19.0 cm.

Ord.No. **100319600** 



### K121, S0 pulse converter with measuring leads

For pulse detection of floating contacts as well as of S0 pulse output on electricity meters. Including two laboratory

cables with safety plug/connection pin.

Ord.No. **100004210** 



# Connection cable for scanning head input (SC) on ZERA instruments with RJ10 socket

The spiral cable connects TKxxx and K121 to the instrument.

- 2x Modular connector RJ10
- Length: 1.00 m / expanded: 6.00 m

Ord.No. **Z10353027** 





### ZZ8636 Start-stop pushbutton for signal entry

The start-stop pushbutton is used for manual signal entry when testing electricity meters.

Ord.No.

Ord.No.

101091620

100023714

# 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 10 Adapter for terminal blocks 101584400 10 Connecting terminals for current X00011923 03 4-mm test clips X00009329 (crocodile clips), slim

X00010059

03 4-mm test clips (crocodile clips), wide

10 Fuse, 1.6 A / 440 V, 6.3 mm x 32 mm, time-lag M00460183

# Transport (see also Special Accessories)



#### Transport Case for MT3xx, large

Aluminum case with inlet from rigid foam, designed for

Ord.No.

100023910

 1 Instrument Accessories

Overall dimensions:

47 cm x 53,5 cm × 18 cm (H x W x D)

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

# Standard Accessories (see also Special Accessories)



### **USB-Stick**

To store customer data and measuring values. Provides easy data transfer from the instrument to the PC.

Ord.No.



# 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

### **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)

# **Special Accessories (Current Clamps and Probes)**



#### MT3403, AC current clamp 1200 A

Clamping diameter: 52 mm

- Output: 2x 4 mm safety sockets
- Measuring range: 10 mA ... 1200 A (1200 A for 40 min max. and a pause between measurement > 20 min)
- Error of measurement:
  - < ±0.3 % / 0.7° (100 A ... 1200 A) < ±0.5 % / 1.0° (10 A ... 100 A) < ±1.0 % / 2.0° (1 A ... 10 A)
- Frequency range: 48 ... 65 Hz
- Rated voltage: 600 V, CAT III / 300 V, CAT IV Note: Connection to MTxxx via input for direct current measurement.



### MT3413, AC current clamp 1800 A

Clamping of round or square conductors.

- Clamping diameter: 64 mm or busbar from 50 x 135 mm up to 64 x 100 mm
- Output: 2x 4 mm safety sockets
- Measuring range: 1 A ... 1800 A (1800 A measurement for max. 10 min)
- Switchable ranges: 500 A, 1000 A, 1500 A
- Error of measurement in 1500 A range:
  - < ±1.5 % / 1.5° (75 A)
  - < ±0.75 % / 0.75° (300 A)
  - < ±0.5 % / 0.5° (1500 A)
- Frequency range: 48 ... 65 Hz
- Rated voltage: 600 V, CAT III / 300 V, CAT IV

Note: Connection to MTxxx via input for direct current measurement.



#### MT3470, flexible AC current probes 3000 A, 0.45 m

Flexible clamping of any conductor to be measured (cable, bar, core, etc.) even on places difficult to access.

- Diameter: ca. 14 cm
- · Output: 2x 4 mm safety plug connection via adapter MT3423
- Measuring range: 500 mA ... 3000 A
- Switchable ranges: 3 A, 30 A, 300 A, 3000 A
- · Error of measurement with optimal range selection:
  - 3-A-range:  $<= \pm 1.0 \% / \text{typ. } 0.5^{\circ} (0.5 \text{ A} \dots 3 \text{ A})$
  - 30-A-range:  $<= \pm 1.0 \% / \text{typ. } 0.5^{\circ} (2 \text{ A } ... 30 \text{ A})$
  - 300-A-range: <= ±1,0 % / typ. 0,5° (30 A ... 300 A)
- 3000-A-range: <= ±1,0 % / typ. 0,5° (300 A ... 3000 A)
- Frequency range: 30 Hz ... 440 Hz
- Rated voltage: 1000 V, CAT IV

*Note:* Connection to the instrument is via adapter **MT3423**.

The adapter has to be ordered separately.

Ord.No.

Ord.No.

100032410

100032401

Ord.No.



### MT3471, flexible AC current probes 3000 A, 0.8 m

Flexible clamping of any conductor to be measured (cable, bar, core, etc.) even on places difficult to access.

- Diameter: ca. 25 cm
- · Output: 2x 4 mm safety plug connection via adapter MT3423
- Measuring range: 500 mA ... 3000 A
- Switchable ranges: 3 A, 30 A, 300 A, 3000 A
- Error of measurement with optimal range selection: 3-A-range:  $<= \pm 1.0 \% / \text{typ. } 0.5^{\circ} (0.5 \text{ A} \dots 3 \text{ A})$ 30-A-range:  $<= \pm 1,0 \% / typ. 0,5° (2 A ... 30 A)$ 300-A-range: <= ±1,0 % / typ. 0,5° (30 A ... 300 A) 3000-A-range: <= ±1,0 % / typ. 0,5° (300 A ... 3000 A)
- Frequency range: 30 Hz ... 440 Hz
- Rated voltage: 1000 V, CAT IV

Note: Connection to the instrument is via adapter MT3423. The adapter has to be ordered separately.



#### MT3472, flexible AC current probes 30000 A, 1.2 m

Flexible clamping of any conductor to be measured (cable, bar, core, etc.) even on places difficult to access.

- Diameter: ca. 38 cm
- · Output: 2x 4 mm safety plug connection via adapter MT3424
- Measuring range: 500 mA ... 30000 A
- Switchable ranges: 30 A, 300 A, 3000 A, 30000 A
- Error of measurement with optimal range selection: 30-A-range:  $<= \pm 1,0 \% / \text{typ. } 0,5^{\circ} (0,5 A ... 30 A)$ 300-A-range: <= ±1,0 % / typ. 0,5° (10 A ... 300 A) 3000-A-range:  $\leq \pm 1.0 \% / \text{typ. } 0.5^{\circ} (300 \text{ A} \dots 3000 \text{ A})$ 30000-A-range: <= ±1,0 % / typ. 0,5° (300 A ... 30000 A)
- Frequency range: 30 Hz ... 440 Hz
- Rated voltage: 1000 V, CAT IV

Note: Connection to the instrument is via adapter MT3424. The adapter has to be ordered separately.



# MT3423, adapter "4 mm safety plug to D-Sub plug 25-pin", 1.0 m.

For connecting max, three flexible current probes of the same type to the instrument. Suitable for the types MT3470 and MT3471. Equipped with:

- 3x socket for two 4 mm safety plugs
- 1x D-Sub plug, 25-pin

Ord.No.

100061321

Ord.No.

100061322

Ord.No.



### MT3424, adapter "4 mm safety plug to D-Sub plug 25-pin", 1.0 m.

For connecting max. three flexible current probes of the same type to the instrument. Suitable for the types MT3472.

Equipped with:

- 3x socket for two 4 mm safety plugs
- 1x D-Sub plug, 25-pin

Ord.No. 100032221

100013207

Ord.No.

# Special Accessories (Quick Connection Cable)



### Quick connection cable "current/retractable sleeve" for

MT series, 12 A, 2.5 m, phase colours: red/yellow/blue 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 retractable sleeve to prevent accidental touching. 2x red, 2x yellow, 2x blue.
- · Cable cross-section: 2.5 qmm



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

To prevent connecting faults on the instrument's side. Measurement category III (CAT III).

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

Ord.No. 100013307



# Quick connection cable "voltage/rigid sleeve" for MT3x0 / MT3000, 2.5 m,

phase colours: black/brown/grey/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 black, 1x brown, 1x grey, 1x blue
- Cable cross-section: 2.5 qmm



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

Ord.No.

100023474

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



# 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 gmm



# 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. Measurement category III (CAT III).

- 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



# Quick connection cable for "current/rigid sleeve" for MT series, 12 A, 2.5 m, phase colours: yellow/green/red

For the connection of <u>source</u> and <u>reference standard</u> 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.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve 2x yellow, 2x green, 2x red.
- Cable cross-section: 2.5 qmm

Ord.No. 100023412

Ord.No.

100023413



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

Ord.No.

100023482

To prevent connecting faults on the instrument's side. Measurement category III (CAT III).

- 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 red, 1x black
- Cable cross-section: 2.5 qmm



Quick connection cable CAT IV 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. Measurement category IV (CAT IV).

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



Quick connection cable CAT IV for "voltage/rigid sleeve" for MT series, 2.5 m, phase colours: black/brown/grey/blue

To prevent connecting faults on the instrument's side. Measurement category IV (CAT IV).

- Instrument's side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x 4 mm Multilam plug with rigid insulating sleeve - 1x black, 1x brown, 1x grey, 1x blue
- Cable cross-section: 2.5 gmm

Ord.No. **100023472** 

Ord.No.

100023484

# **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 gmm

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

 Isulating 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



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



### 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 springloaded 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, 1.6 A / 440 V, 6.3 mm x 32 mm, time-lag

Ord.No. **m00460183** 



# **Special Accessories (Transport)**



Carrying strap for reference meter, black, width 25 mm Belt length: 700 - 1,400 mm, adjustable by sliding buckle, metal snap hooks on both sides.

# 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



### Temperature sensor MT3450

Temperature sensor can be used for measuring of the ambient temperature on site.

The temperature value will be displayed and stored inside the MT device

Temperature range: -20° C ... +60° C (± 1° C)

Resolution: 0,1° Č Cable length: 3 m Ord.No. **100904000** 



# Tripod with fixing device for MT360/365 devices

For fixing and individual positioning of the instrument.

Ord.No. 100114807



### Plexiglass protection cover for MT3xx,

The cover is made of plexiglass and serves for mechanical protection of the LCD display. To enable the access to the soft-key terminal the cover is equipped with gaps.

Ord.No. 100053201

# Readjustment (only for Service)



### Adjustment of MT3xx series

Note: Calibration and Calibration report are not included.



# Adjustment of current clamp MT3430/3460 or MT3422/3465

Ord.No.

101243212

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



# Adjustment of current clamp MT3416 / MT3417

Ord.No.

100033894

Note: Calibration and Calibration report are not included.

# **Factory Calibration (only for Service)**



Factory Calibration for MT3xx series, 50 Hz incl. ZERA calibration report.

Ord.No.

100007038

**Load points according to ZERA regulations.** Summary of used load points

can be downloaded at www.zera.de.

Additional load points are subject to charges.



Factory Calibration for MT3xx series, along with current clamp MT3460\*, 50 Hz incl. ZERA calibration report.

Ord.No.

101243210

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.

\*valid also for previous versions



Factory Calibration for MT3xx series, 60 Hz incl. ZERA calibration report.

Ord.No.

100007054

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.



Factory Calibration for MT3xx series, along with current clamp MT3460\*, 60 Hz incl. ZERA calibration report.

Ord.No.

101243211

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.

\*valid also for previous versions



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



Factory Calibration for MT3460 / MT3465 50Hz incl. ZERA calibration report.

Ord.No.

101242304

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.

Additional load points are subject to charges.



Factory Calibration for MT3416 / MT3417, 50 Hz incl. ZERA calibration report.

Ord.No.

100519701

Load points according to ZERA regulations.

Summary of used load points can be downloaded at www.zera.de.



Factory Calibration for MT3430 / MT3422, 60 Hz incl. ZERA calibration report.

Ord.No.

100007062

**Load points according to ZERA regulations.** Summary of used load points

Additional load points are subject to charges.

can be downloaded at www.zera.de.



Factory Calibration for MT3416 / MT3417, 60 Hz incl. ZERA calibration report.

Ord.No.

100519704

Load points according to ZERA regulations. Summary of used load points can be downloaded at www.zera.de.



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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