



ZERA

COM500x
Product Catalogue

Doc.No: 100352729
Version from: 01.07.2024

Device



COM5003 Three Phase Comparator

Inclusive adjustment and factory calibration for one mains frequency.

Ord.No. **1016720xx**

Calibration	Ord.No.
Factory 50 Hz	xx → 00
Factory 60 Hz	xx → 01
DAkKS 50 Hz	xx → 02
DAkKS 60 Hz	xx → 03

COM5003 is a highly precise Comparator which offers the opportunity to compare the tractability of the internal frequency and the AC/DC transfer voltage to external Standards.

Configuration:

- Direct current measurement up to 580 V / 160 A
- Accuracy for power/energy measurement: < $\pm 0,005$ %
- Power measurement with alternating energy direction
- Active impedance compensation for currents ≤ 100 mA
- Integrated Linux OS
- Capacitive user touch screen



COM5002 Three Phase Comparator

Inclusive adjustment and factory calibration for one mains frequency.

Ord.No. **1016721xx**

Calibration	Ord.No.
Factory 50 Hz	xx → 00
Factory 60 Hz	xx → 01
DAkKS 50 Hz	xx → 02
DAkKS 60 Hz	xx → 03

COM5002 is a highly precise Comparator which offers the opportunity to compare the tractability of the internal frequency and the AC/DC transfer voltage to external Standards.

Configuration:

- Direct current measurement up to 580 V / 160 A
- Accuracy for power/energy measurement: < $\pm 0,008$ %
- Power measurement with alternating energy direction
- Active impedance compensation for currents ≤ 100 mA
- Integrated Linux OS
- Capacitive user touch screen

Power Cords



Power cord "Class I grounded plug type E/F to IEC 60320 C13", 2.5 m

For supply via power socket.

- 1x class I grounded plug type E/F (CEE 7/7), straight
- 1x socket IEC 60320 C13

Ord.No.

M00481006



Power cord "Class I grounded plug type E/F to IEC 60320 C13", 2.5 m

For supply via power socket.

- 1x class I grounded plug type E/F (CEE 7/7)
- 1x socket IEC 60320 C13, angled

Ord.No.

M00481004



Power cord "Plug type B to IEC 60320 C13", 2.5 m

For supply via power socket.

- 1x plug type B
- 1x socket IEC 60320 C13

Ord.No.

X00006459



Power cord "Plug type I to IEC 60320 C13", 2.5 m

For supply via power socket.

- 1x plug type I (AS/NZS 3112, 3-pin)
- 1x socket IEC 60320 C13

Ord.No.

X00006460



Power cord "Plug type G (BS 1363) to IEC 60320 C13", 2.5 m

For supply via power socket.

- 1x Plug type G (BS 1363)
- 1x socket IEC 60320 C13

Ord.No.

X00009832



**Power cord "Plug type D (BS 546)
to IEC 60320 C13", 1.8 m**

For supply via power socket.

- 1x Plug type D (BS 546)
- 1x socket IEC 60320 C13

Ord.No. **100929900**



**Power cord "Plug type H"
to IEC 60320 C13", 1.8 m**

For supply via power socket.

- 1x Plug type H
- 1x socket IEC 60320 C13

Ord.No. **100929903**

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**

- Current cable up to 160 A, 2.0 m,**
- 1x 8 mm socket
 - 1x 10,5 mm cable lug
 - Lead cross section: 50 qmm
 - Phase colours:
Please specify the colour code when ordering. The cables will get a corresponding coloured marking.
21=black, 22=red, 23=blue, 24= yellow, 25=green, 26=violet, 27=brown, 28=grey, 29=white

Ord.No. **1011942xx**

xx please select the colour



- Connection-Adapter (8,5mm lug)**
Lockable adapter plug to connect cables with cable lugs to the 8 mm plug system of the instrument.
Designed as
- 8 mm plug
 - 8,5 mm screw terminal

Ord.No. **101027920**

For each phase 1 adapter is required.



- Connection-Adapter (6 / 4 mm plug system)**
Lockable adapter plug to connect cables via 6 / 4 mm plugs the instrument.
Designed as
- 8 mm plug
 - 6 / 4 mm socket system

Ord.No. **101155610**

For each phase 2 adapters are required.



Current cable up to 120 A, on double-side socket, 2.0 m,

- 2x 6 mm socket
- Lead cross section: 35 qmm
- Phase colours: Please specify the colour code when ordering. The cables will get a corresponding coloured marking.
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. **1011979xx**



Plug-in Adapter Pin 3 mm

For meter connection via terminal, realised as brass silver plated.

The two sides of the pin has different diameters and functions.

- 1 Side 6 mm **pin for test leads**
- 1 Side 3 mm-**pin for meter terminals**

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **Z10120115**



Plug-in Adapter Pin 4,2 mm

For meter connection via terminal, realised as brass silver plated.

The two sides of the pin has different diameters and functions.

- 1 Side 6 mm **pin for test leads**
- 1 Side 4,2 mm-**pin for meter terminals**

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **Z10120112**



Plug-in Adapter Pin 5,5 mm

For meter connection via terminal, realised as brass silver plated.

The two sides of the pin has different diameters and functions.

- 1 Side 6 mm **pin for test leads**
- 1 Side 5,5 mm-**pin for meter terminals**

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **Z10120108**



Plug-in Adapter Pin 6 mm

The adapter is realized in brass silver plated. The two sides of the pin have the same dimensions (6 mm) and are special designed for ZERA 6 mm socket system used with current test leads and/or connection to modern ZERA meter test system (MTS).

Ord.No. **Z10120109**



Plug-in Adapter cable lug 8,5 mm closed

For current connection via screw terminals, realised as brass silver plated. The two sides of the pin has different connectors and functions.

- 1 Side 6 mm **pin for test leads**
- 1 Side 8,5 mm-**cable lug closed in for screw terminals**

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **100640906**



Plug-in Adapter cable lug 10,5 mm closed

For current connection via screw terminals, realised as brass silver plated. The two sides of the pin has different connectors and functions.

- 1 Side 6 mm **pin for test leads**
- 1 Side 10,5 mm-**cable lug closed in for screw terminals**

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **100640907**



Current cable up to 120 A, double-side socket, 1.0 m, for connection between source and reference meter.

- 2x 6 mm socket
- Lead cross section: 35 qmm
- Phase colours: Please specify the colour code when ordering. The cables will get a corresponding coloured marking.

21=black, 22=red, 23=blue, 24= yellow, 25=green, 26=violet, 27=brown, 28=grey, 29=white

Ord.No. **1012006xx**

xx please select the colour

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, 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**



Connection cable for RJ10 socket input (SC)

The spiral cable for connecting of TKxxx or K121 to the ZERA instrument.

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

Ord.No. **Z10353027**

Connectors (see also Special Accessories)



Accessories bag with connection adapters (COM500x)

- | | |
|---|-----------|
| 01 Accessories bag | 100214400 |
| 04 Spring clip | 100606750 |
| 10 Adapter for terminal blocks | 101584400 |
| 06 Adapter with cable lug | X00004963 |
| 04 4-mm test clips
(crocodile clips), slim | X00009329 |
| 06 4-mm test clips
(crocodile clips), wide | X00010059 |
| 10 Fuse, 3.15 A
5 mm x 20 mm, time-lag | M00460252 |

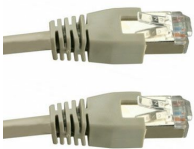
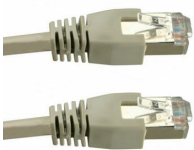
Ord.No. **100023743**

Transport (see also Special Accessories)**Transport Case 1 with wheels for
COM500x; WM3000; WM1000**Ord.No. **100023908**Ultra High Impact Copolymer Polypropylene case with
inlet from rigid foam, designed for

- 1 Instrument
- Accessories

Overall dimensions:

80,8 cm x 58,7 cm x 48,4 cm (H x W x D)

*Please clarify whether the case size is suitable
for the ordered accessories.***Standard Accessories (see also Special Accessories)****Patch cable RJ45, 1 m**Ord.No. **100161606****Patch cable RJ45, 3 m**Ord.No. **100161607****Patch cable RJ45, 5 m**Ord.No. **100161603****Coaxial cable with BNC plug, 2 m**

- 2x BNC plug

Ord.No. **Z09548320**



USB Flash Drive, 16GB

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

Ord.No. **101198360**

Documentation



Complete Documentation

as pdf files on USB flash drive

Ord.No. **100090716**

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**

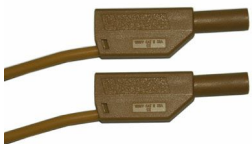


Laboratory cable with stackable plug, violet, 2.0 m

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).

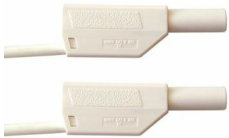
- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

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. **100414103****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)****Cable bridge, black, 0.25 m**

Measurement category III (CAT III).

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

Ord.No. **X00003092****Connecting terminals for current**

- Insulating screw joint for flexible wire connection
max cable size 1,5 ... 16 mm²
- 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. **101584400**



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 plug 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, 3.15 A, 5 mm x 20 mm, time-lag



Ord.No. **M00460252**

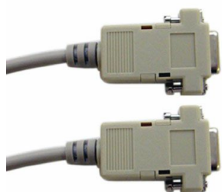
Special Accessories (General)



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**



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

Connection cable for communication

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

Ord.No. **X00010844**

**Pulse shaper K129**

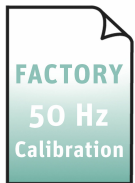
The adapter K129 can be connected between the TTL-output and the Fin-input. The TTL-level will be converted into an Open-Collector-output. The necessary power supply (> 3.4 V / approx. 40 µA) will be provided by the input, resp. output signal.

Ord.No. **100311100****Pulse Scaler K133**

The adaptor K133 is for the reduction ratio (1000:1, 100:1, 10:1, 1:1) of working standard pulses.
Input: BNC
Output: RJ10 socket

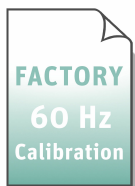
Ord.No. **100453201****Readjustment (for Service)****AC-Adjustment of COM500x**

Note: Calibration and Calibration report are not included.

Ord.No. **101049020****Calibration (for Service)****AC Factory Calibration for COM500x, 50 Hz**
incl. ZERA calibration report.Ord.No. **100890841****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.

**AC Factory Calibration for COM500x, 60 Hz**
incl. ZERA calibration report.Ord.No. **100890842****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 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**

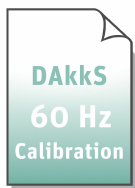


AC-DKD-Calibration 50 Hz for COM500x
• Incl. DKD calibration certificate acc. IEC 17025

Ord.No. **100519689**

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.



AC-DKD-Calibration 60 Hz for COM500x
• Incl. DKD calibration certificate acc. IEC 17025

Ord.No. **101173903**

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**

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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