



# MT3x0s2

Product Catalogue

Doc.No: 100352770 Version from: 01.07.2022

#### Device Three phase reference meter MT310s2 CAT IV Ord.No. 101494600 Inclusive adjustment for one mains frequency and one Battery Pack BM4100. *MT310s2* 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. *MT400* oder *MT5xx*) MT310s2 is designed for testing of max. 1 test specimen. Configuration: Direct current measurement up to 300 V / 12 A Protection class CAT IV Accuracy for power/energy measurement: < ±0.1 %</li> Burden measurement for instrument transformer installations Additional 4th voltage and current input channel • Wide range of accessories (optional) Three phase reference meter MT320s2 CAT IV Ord.No. 101551800 Inclusive adjustment for one mains frequency and one Battery Pack BM4100. MT320s2 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. MT400 oder MT5xx) MT320s2 is designed for testing of max. 1 test specimen. Configuration: Direct current measurement up to 300 V / 12 A Protection class CAT IV Accuracy for power/energy measurement: < ±0.05 %</li> Burden measurement for instrument transformer installations Additional 4th voltage and current input channel

• Wide range of accessories (optional)

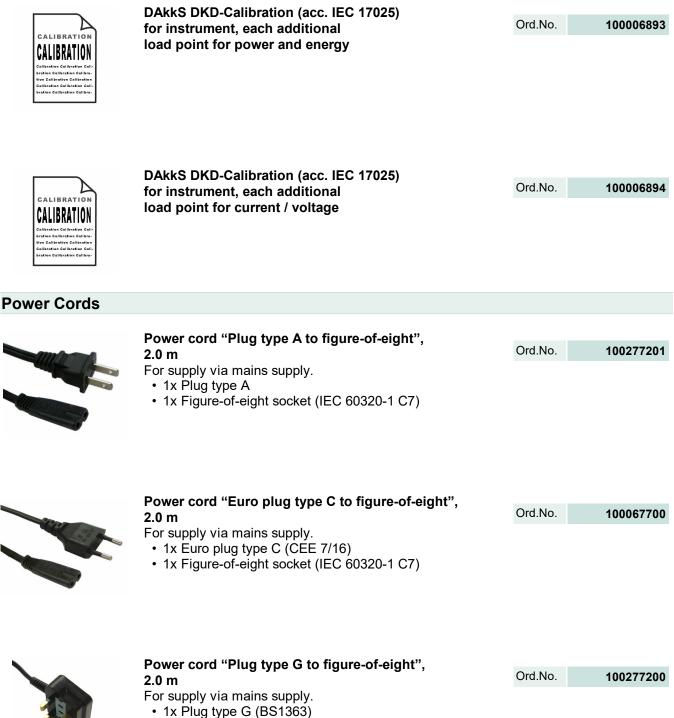
BRATION	Factory Calibration for MT3x0s2, 50 Hz incl. ZERA calibration report.	Ord.No.	10124232
Calibration Calibra- tion Calibra- tion Calibration Calibration	This article applies only for a purchase of a new device without a DAkkS DKD-Calibration.		
Ibration Calibra-	<b>Load points according to ZERA regulations.</b> Summary of used load points can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
	Factory Calibration for MT3x0s2, 60 Hz incl. ZERA calibration report.	Ord.No.	10124232
RATION HZ Calibration Cali- rration Calibration Jalibration Cali-	This article applies only for a purchase of a new device without a DAkkS DKD-Calibration.		
libration Calibra-	<b>Load points according to ZERA regulations.</b> Summary of used load points can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
A	Factory Calibration for instrument, each additional	Ord.No.	10000709
ATION TRAIN CAII- on Calibra- Galibration Fration Cali- on Calibra-	load point for power and energy		
_	Factory Calibration	Ord.No.	1000070

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	DALLO DKD Collegetion for MT2-0-0, 50 H		
CALIBRATION	DAkkS DKD-Calibration for MT3x0s2, 50 Hz incl. DKD-Calibration Certificate acc. IEC 17025	Ord.No.	101173949
500Hz alibration Calibration Calibra- or Calibration Calibration or Calibration Calibration Alibration Calibration Calibra-	<b>Load points according to ZERA regulations.</b> Summary of used load points can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
calibration 50Hz	DAkkS DKD-Calibration for MT3x0s2 incl. current clamp CCx120, L1-L2-L3, 50 Hz incl. DKD-Calibration Certificate acc. IEC 17025	Ord.No.	10117395 <sup>.</sup>
Calibration Calibr	<b>Load points according to ZERA regulations.</b> Summary of used load points can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
	DAkkS DKD-Calibration for MT3x0s2, 60 Hz		
CALIBRATION	incl. DKD-Calibration Certificate acc. IEC 17025	Ord.No.	10117395
<b>60Hz</b> Calibration Calibration Calibration Calibration Calibration tion Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration	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	DAkkS DKD-Calibration for MT3x0s2 incl. current clamp CCx120, L1-L2-L3, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025	Ord.No.	10117395
Calibration Calibration Cali- bration Calibration Calibra- tion Calibration Calibration Calibration Calibration Cali- bration Calibration Calibra-	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.



• 1x Figure-of-eight socket (IEC 60320-1 C7)

	<ul> <li>Power cord "Plug type I to figure-of-eight", 2.0 m</li> <li>For supply via mains supply.</li> <li>1x Plug type I (AS/NZS 3112, 2-pin)</li> <li>1x Figure-of-eight socket (IEC 60320-1 C7)</li> </ul>	Ord.No.	100277202
Battery Pack and	Accessories		
	<b>Battery Pack BM4100</b> Rechargeable Battery Pack with Li-ION Battery for operation of MT3x0s2 independent from the mains. 14,4 V / 6,6 Ah / 95,04 Wh	Ord.No.	101378200
	<b>AC Power supply for Battery Pack BM4100</b> AC Power supply for recharging battery pack BM4100 Input: AC 90 – 264 V / 47 – 63 Hz Output: DC 24 V, 1,67 A (max. 40 W)	Ord.No.	101213410
	<b>DC/DC-Converter for Battery Pack BM4100</b> Converter for recharging battery pack BM4100 via cigarette lighter plug from cars. Input: DC 12 -16 V Output: DC 24 V, max. 6 A	Ord.No.	101486001
	Extension for DC cable for connection with the battery module <i>BM4100</i> of the <i>MT310s2</i> Reference Meter	Ord.No.	101488900



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Current Clamps (s	see also Special Accessories)		
	<ul> <li>CCB120, AC current clamp 120 A, L1</li> <li>Electronically compensated, calibration independent from the instrument.</li> <li>Clamping diameter: 16 mm</li> <li>Output: Plug with Push-Pull locking</li> <li>Measuring range: 5 mA 120 A</li> <li>Error of measurement: <ul> <li>±0.15% @ 500 mA 120 A</li> <li>±0.3% @ 100 mA</li> <li>500 mA</li> </ul> </li> <li>Frequency range: 45 65 Hz</li> <li>Measuring Category: 600 V, CAT III / 300 V, CAT IV</li> </ul>	Ord.No.	101383600
	<ul> <li>CCB120, AC current clamp 120 A, L2</li> <li>Electronically compensated, calibration independent from the instrument.</li> <li>Clamping diameter: 16 mm</li> <li>Output: Plug with Push-Pull locking</li> <li>Measuring range: 5 mA 120 A</li> <li>Error of measurement: <ul> <li>±0.15% @ 500 mA 120 A</li> <li>±0.3% @ 100 mA</li> <li>500 mA</li> </ul> </li> <li>Frequency range: 45 65 Hz</li> <li>Measuring Category: 600 V, CAT III / 300 V, CAT IV</li> </ul>	Ord.No.	101383700
	<ul> <li>CCB120, AC current clamp 120 A, L3</li> <li>Electronically compensated, calibration independent from the instrument.</li> <li>Clamping diameter: 16 mm</li> <li>Output: Plug with Push-Pull locking</li> <li>Measuring range: 5 mA 120 A</li> <li>Error of measurement:</li> <li>±0.15% @ 500 mA 120 A</li> <li>±0.3% @ 100 mA</li> <li>500 mA</li> <li>Frequency range: 45 65 Hz</li> <li>Measuring Category: 600 V, CAT III / 300 V, CAT IV</li> </ul>	Ord.No.	101383800

101383500

Ord.No.







#### CCB120, AC current clamp, AUX

Electronically compensated, calibration independent from the instrument.

- Clamping diameter: 16 mm
- Output: Plug with Push-Pull locking
- 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: 600 V, CAT III / 300 V, CAT IV



- CCB300, AC current clamp 300 A, L1Ord.No.101422300Electronically compensated, calibration independentOrd.No.101422300from the instrument.Ord.No.101422300
- Clamping diameter: 52 mm
- Output: Plug with Push-Pull locking
- Measuring range: 100 mA ... 300 A
- Error of measurement: < ±0,15 % @ 1 A ... 300 A
  - < ±0,3 % @ 500 mA ... < 1 A
- < ±0,6 % @ 200 mA ... < 500 mA
- Frequency range: 45 ... 65 Hz
- Measuring Category: 600 V, CAT III / 300 V, CAT IV

### CCB300, AC current clamp 300 A, L2

Electronically compensated, calibration independent	Ord.No.	101422400
from the instrument.		
Clamping diameter: 52 mm		

- Clamping diameter: 52 mm
- Output: Plug with Push-Pull locking
- Measuring range: 100 mA ... 300 A
- Error of measurement:
- < ±0,15 % @ 1 A ... 300 A
- < ±0,3 % @ 500 mA ... < 1 A
- < ±0,6 % @ 200 mA ... < 500 mA
- Frequency range: 45 ... 65 Hz
- Measuring Category: 600 V, CAT III / 300 V, CAT IV

101422500

Ord.No.

# ZERA



#### CCB300, AC current clamp 300 A, L3

Electronically compensated, calibration independent from the instrument.

- Clamping diameter: 52 mm
- Output: Plug with Push-Pull locking
- Measuring range: 100 mA ... 300 A
- Error of measurement:
- < ±0,15 % @ 1 A ... 300 A
- < ±0,3 % @ 500 mA ... < 1 A < ±0,6 % @ 200 mA ... < 500 mA
- Frequency range: 45 ... 65 Hz
- Measuring Category: 600 V, CAT III / 300 V, CAT IV



	CCB1000, AC current clamp 1000 A, L1		
	Electronically compensated, calibration independent	Ord.No.	101547300
	from the instrument.		
	<ul> <li>Clamping diameter: 115 mm</li> </ul>		
1	Output: Plug with Push-Pull locking		
	• Measuring range: 100 mA … 1000 A		
	<ul> <li>Error of measurement:</li> </ul>		
	< ±0,15 % @ 3 A 1000 A		
	< ±0,3 % @ 1 mA < 3 A		
	$< \pm 0^{\prime} 6\% @ 300 m \Lambda < 1 \Lambda$		

- < ±0,6 % @ 300 mA ... < 1 A</li>
  Frequency range: 45 ... 65 Hz
- Measuring Category: 600 V, CAT III / 300 V, CAT IV



CCB1000, AC current clamp 1000 A, L2

Electronically compensated, calibration independent Ord.No. **101547400** from the instrument.

- Clamping diameter: 115 mm
- Output: Plug with Push-Pull locking
- Measuring range: 100 mA ... 1000 A
- Error of measurement:
  - < ±0,15 % @ 3 A ... 1000 A
  - < ±0,3 % @ 1 mA ... < 3 A
- < ±0,6 % @ 300 mA ... < 1 A • Frequency range: 45 ... 65 Hz
- Measuring Category: 600 V, CAT III / 300 V, CAT IV

101547500

Ord.No.

# ZERA



#### CCB1000, AC current clamp 1000 A, L3

Electronically compensated, calibration independent from the instrument.

- Clamping diameter: 115 mm
- Output: Plug with Push-Pull locking
- Measuring range: 100 mA ... 1000 A
- Error of measurement:
  - < ±0,15 % @ 3 A ... 1000 A
  - < ±0,3 % @ 1 mA ... < 3 A
- < ±0,6 % @ 300 mA ... < 1 A
- Frequency range: 45 ... 65 Hz
- Measuring Category: 600 V, CAT III / 300 V, CAT IV

#### Factory Calibration for NEW Current Clamps

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Factory Calibration for NEW CCx120, 50 Hz incl. ZERA calibration report.	Ord.No.	101242324
This article applies only for a purchase of new device.		
<b>Load points according to ZERA regulations.</b> Summary of used load points can be downloaded at www.zera.de.		
Additional load points are subject to charges.		
Factory Calibration for NEW CCx120, 60 Hz incl. ZERA calibration report.	Ord.No.	101242325
This article applies only for a purchase of new device.		
<b>Load points according to ZERA regulations.</b> Summary of used load points can be downloaded at www.zera.de.		
Additional load points are subject to charges.		

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 Factory Calibration for NEW CCx300, 50 Hz
 Ord.No.

 incl. ZERA calibration report.
 Ord.No.

 This article applies only for a purchase of new device.
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Additional load points are subject to charges.

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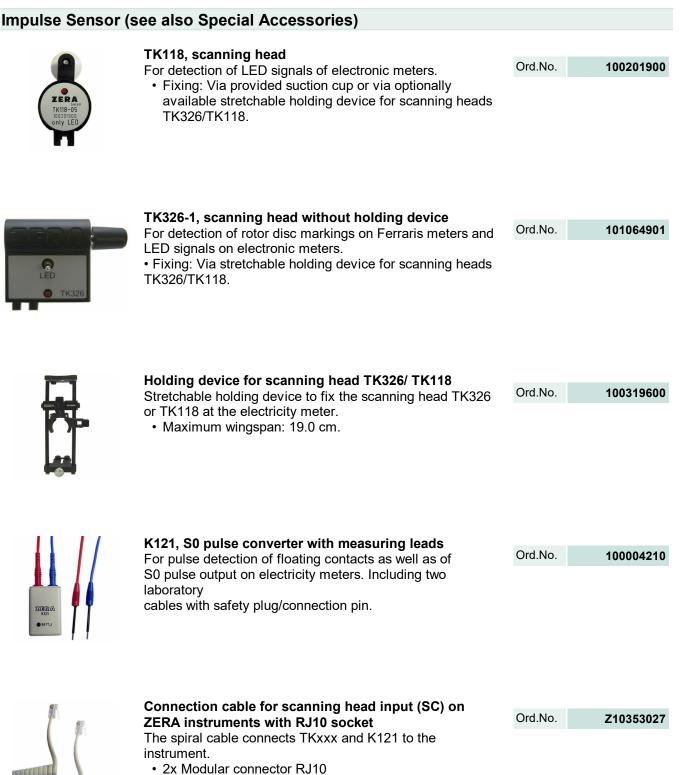
CALIBRATION BODHZ Builteaten Calibraten Calibraten Calibraten Calibraten Calibraten Calibraten Calibraten Calibraten Calibraten Calibraten Calibraten	<ul> <li>Factory Calibration for NEW CCx300, 60 Hz incl. ZERA calibration report.</li> <li>This article applies only for a purchase of new device.</li> <li>Load points according to ZERA regulations.</li> <li>Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101242329
CALIBRATION 50Hz Calibratic Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration	<ul> <li>Factory Calibration for NEW CCx1000, 50 Hz incl. ZERA calibration report.</li> <li><i>This article applies only for a purchase of new device.</i></li> <li>Load points according to ZERA regulations.</li> <li>Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101242338
CALIBRATION <b>60HZ</b> Bulbratic Calibration Calibratica Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration	<ul> <li>Factory Calibration for NEW CCx1000, 60 Hz incl. ZERA calibration report.</li> <li>This article applies only for a purchase of new device.</li> <li>Load points according to ZERA regulations.</li> <li>Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101242339
DAkkS Calibratio	DAkkS DKD-Calibration for current clamp CCx120, L1-L2-L3, 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.	Ord.No.	101173953

Additional load points are subject to charges.

CALIBRATION 600Hz albraten Calibraten Cali- raten Calibraten Calibraten albraten Calibraten albraten Calibraten Calibraten Calibraten	<ul> <li>DAkkS DKD-Calibration for current clamp CCx120, L1-L2-L3, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025</li> <li>Load points according to ZERA regulations. Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101173954
CALIBRATION 500Hz altration Calibration Calibration Calibration Calibration altration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration	<ul> <li>DAkkS DKD-Calibration for current clamp CCx300, L1-L2-L3, 50 Hz incl. DKD-Calibration Certificate acc. IEC 17025</li> <li>Load points according to ZERA regulations. Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101173955
CALIBRATION 600Hz allustas Gilibration Gali- ration Gilibration Gali- ration Gilibration Gali- ration Gilibration Gali- ration Gilibration Gali-	<ul> <li>DAkkS DKD-Calibration for current clamp CCx300, L1-L2-L3, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025</li> <li>Load points according to ZERA regulations. Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101173956
CALIBRATION 500Hz dibratine Galibration Gali- ration Galibration Gali- ration Galibratic Galibra- ration Galibratic Galibra-	DAkkS DKD-Calibration for current clamp CCx1000, L1-L2-L3, 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.	Ord.No.	101173965

Additional load points are subject to charges.

CALIBRATION <b>60Hz</b> Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration	<ul> <li>DAkkS DKD-Calibration for current clamp CCx1000, L1-L2-L3, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025</li> <li>Load points according to ZERA regulations. Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101173966
Quick Connectio	on Cable (see also Special Accessories)		
	<ul> <li>CAT IV Quick connection cable "current/rigid sleeve" max. 12 A for MT s2-series, 2.5 m</li> <li>Phase colours: red/yellow/blue</li> <li>To prevent connecting faults on the instrument's side.</li> <li>Instrument's side: 1x 6-pin connector with anti-twist safeguard.</li> <li>Mains side: 6x 4 mm plug (non-stackable) with rigid insulating sleeve.</li> <li>Cable cross-section: 2.5 qmm</li> </ul>	Ord.No.	101318700
	<ul> <li>CAT IV Quick connection cable for "voltage/rigid sleeve" for MT s2-series, 2 m</li> <li>Phase colours: red/yellow/blue/black/black-white</li> <li>To prevent connecting faults on the instrument's side</li> <li>Instrument's side: 1x 5-pin connector with anti-twist safeguard.</li> <li>Mains side: 5x 4 mm plug (non-stackable) with rigid insulating sleeve</li> <li>Cable cross-section: 2.5 qmm</li> </ul>	Ord.No.	101312800
	<ul> <li>CAT IV Laboratory cable max. 12 A, 2.0 m</li> <li>2x 4 mm plugs (non-stackable) with rigid insulating sleeve</li> <li>Lead cross section: 1 qmm</li> <li>Phase colours: Please specify the colour code when ordering</li> <li>The cables will get a corresponding coloured marking.</li> <li>20=black-white, 21=black, 22=red, 23=blue,</li> <li>24= yellow, 25=green, 26=violet, 27=brown,</li> <li>28=grey, 29=white</li> </ul>	Ord.No.	1014308xx
	xx please select the colour		



Length: 1.00 m / expanded: 6.00 m

Subject to change without notice.

#### **ZZ8636 Start-stop pushbutton for signal entry** The start-stop pushbutton is used for manual signal entry when testing electricity meters.

**Connectors (see also Special Accessories)** 

	Accessories bag with connection a 01 Accessories bag 03 Spring clip 05 4-mm plug adapter (banana plug) 10 Adapter for terminal blocks 10 Connecting terminals for current 04 4-mm test clips (crocodile clips), slim 04 4-mm test clips (crocodile clips), wide 10 Fuse, 2,5 A / 500 V 6.3 mm x 32 mm, time-lag	dapters 100214400 100606750 X00004962 101584400 X00011923 X00009329 X00010059 M00460199	Ord.No.	100023744
Transport (see als	so Special Accessories)			
	<ul> <li>Transport Case for MT3x0s2, Stand Aluminum case with inlet from rigid fo • 1 Instrument • Accessories</li> <li>Overall dimensions: 47 cm x 53,5 cm</li> <li>Please clarify whether the case size is ordered accessories.</li> </ul>	am, designed for × 18 cm (H x W x D)	Ord.No.	100023911
	<b>Transport Case for MT3x0s2, Stand</b> PVC case with inlet from rigid foam, d •1 Instrument • Accessories Overall dimensions: 41,5 cm x 51,5 cr D)	esigned for	Ord.No.	100023909

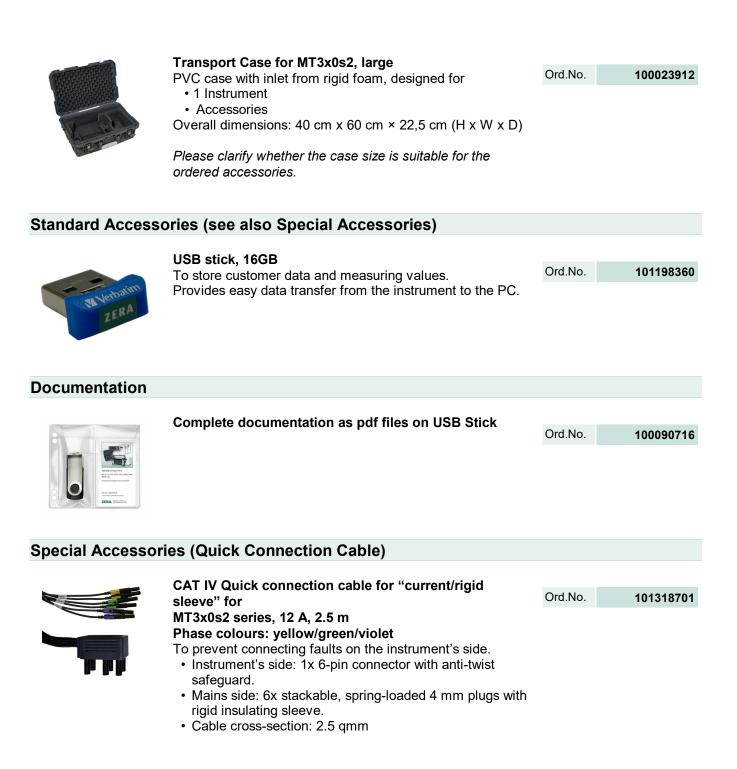
Please clarify whether the case size is suitable for the ordered accessories.

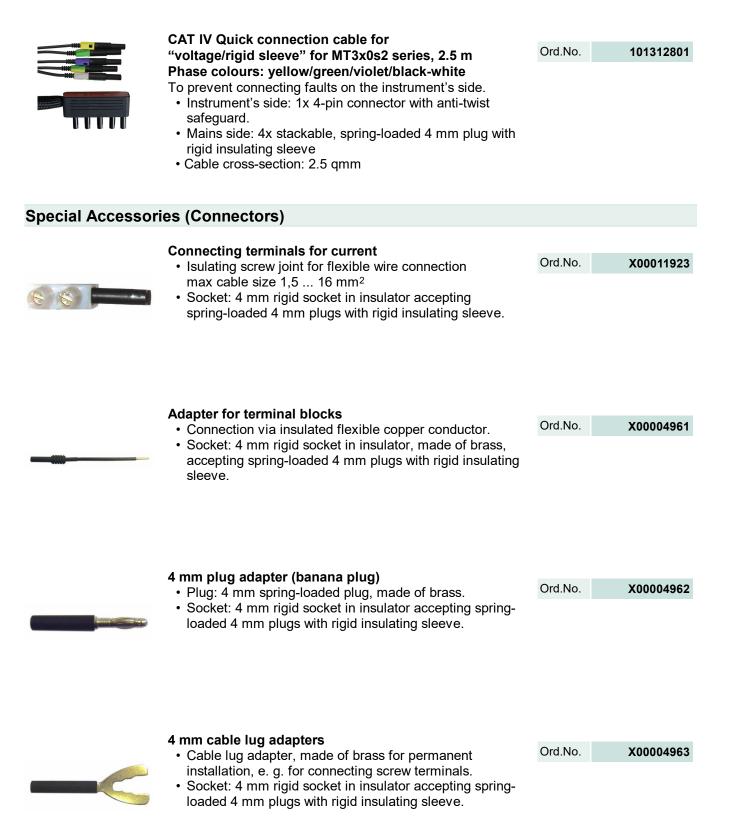
101091620

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Ord.No.







<ul> <li>Spring clip</li> <li>Connection via spring clip.</li> <li>Socket: spring-loaded 4 mm plugs with rigid insulating sleeve.</li> </ul>	Ord.No.	100606750
<ul> <li>Test plugs for terminal blocks</li> <li>Plug: 4 mm test plug, made of brass with spring-loaded plug for connecting into rail mounted terminals with 4 mm sockets.</li> <li>Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.</li> </ul>	Ord.No.	100102400
<ul> <li>4 mm test clips (crocodile clips), wide</li> <li>Crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.</li> <li>Socket: 4 mm rigid socket in insulator accepting spring- loaded 4 mm plugs with rigid insulating sleeve.</li> </ul>	Ord.No.	X00010059
<ul> <li>4 mm test clips (crocodile clips), slim</li> <li>Small, slim crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.</li> <li>4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.</li> </ul>	Ord.No.	X00009329
Accessories bag without content		



Accessories bag without content
DIN A6, material: polypropylene

Ord.No. 100214400

Product Catalog MT3x0s2

	Fuse, 2.5 A / 550 V, 6.3 mm x 32 mm, time-lag	Ord.No.	M00460199
	<ul> <li>Test probe, black</li> <li>Ø 4 mm test probe with spring-loaded Multilam.</li> <li>Handle guard chamfered on both sides.</li> <li>Ø 4 mm rigid socket in handle accepting spring-loaded</li> <li>Ø 4 mm plugs with rigid insulating sleeve.</li> </ul>	Ord.No.	101412200
	<b>Test probe, blue</b> Ø 4 mm test probe with spring-loaded Multilam. Handle guard chamfered on both sides. Ø 4 mm rigid socket in handle accepting spring-loaded Ø 4 mmplugs with rigid insulating sleeve.	Ord.No.	101412201
Special Accessories (Transport)			
	<b>Carrying strap for reference meter, black, width 25 mm</b> Belt length: 700 - 1,400 mm, adjustable by sliding buckle, metal snap hooks on both sides.	Ord.No.	100170000
	<b>Tripod with fixing device for MT3x0s2 devices</b> For fixing and individual positioning of the instrument.	Ord.No.	100114810



ZERA GmbH Humboldtstrasse 2a D-53639 Koenigswinter Phone: +49 (0)2244 9277-0 E-Mail: zera@zera.de Internet: www.zera.de Managing Director: Horst Wächter Headquarter: Königswinter

Commerzbank Bonn IBAN: DE29 3804 0007 0113 3131 00 SWIFT (BIC): COBADEFF380

Kreissparkasse Köln IBAN: DE15 3705 0299 0001 0784 92 SWIFT (BIC): COKSDE33

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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