

## **30 & 50 MHz differential probes for oscilloscopes**



**The ideal analogue and digital oscilloscope accessory  
for displaying signals not referenced to the earth**

- A family of 3 models for a wide range of applications
- A choice of 1 or 2 input channels
- Banana or coaxial/banana extra-long measurement leads
- A coaxial input model specially for use with oscilloscope probes
- Bandwidth 30 MHz or 50 MHz
- Mains or battery power supply (depending on model)
- 2 presentation models: Laboratory case or hand-held wrist strap version
- Range of differential input voltages from  $\pm 0.1$  to  $\pm 600$  V
- Standards compliance up to 600 V-CAT IV (depending on model)
- Can be used with all Class 1 type oscilloscopes
- Mechanical compatibility with the complete MTX family of oscilloscopes
- Compliance with LVD safety standards IEC 61010-1 (2001)
- Compliance with EMC standards EN 61326-1 (07/97) + A1 (10/98) + A2 (2001)

| TECHNICAL SPECIFICATIONS           | MTX1032-C   | MTX1032-B           | MX9030-Z   |
|------------------------------------|---|---------------------|--|
| <b>PRESENTATION</b>                |   |                     |  |
| Model version                      | Laboratory case version for independent use or associated mechanically with MTX Oscilloscopes |                     | Hand-held version with wrist strap for independent use               |
| Front-panel controls               | Voltage ratio selector switch<br>Battery disconnect switch (MX9030-Z only)                    |                     |  |
| Display                            | Power ON - LED display  |                     |  |
| <b>INPUTS</b>                      |   |                     |  |
| Number of channels                 | 2 differential channels   |                     | 1 differential channel   |
| Input types                        | Coaxial connection leads  |                     | Banana sockets   |
| Bandwidth                          | 50 Mhz  | 30 Mhz              | 30 MHz   |
| Rising time                        | 7 ns  | 11.7 ns             | 11.7 ns  |
| Input impedance                    | 1 M $\Omega$ // 13pF  | 1 M $\Omega$ // 6pF | 2 M $\Omega$ // 6 pF   |
| Maximum input voltage              | 600 V / CAT II  | 600 V / CAT III     | 600 V / CAT IV   |
| Voltage ratios                     | 1/10 & 1/100  |                     | 1/20 & 1/200   |
| Differential voltage ranges        | 1/10 = $\pm$ 0.1V to $\pm$ 40 V<br>1/100 = $\pm$ 1V to $\pm$ 400 V                            |                     | 1/20 = $\pm$ 0.1 V to $\pm$ 60 V<br>1/200 = $\pm$ 1 V to $\pm$ 600 V |
| Accuracy of attenuations (1kHz)    | $\pm$ 3 %   |                     |  |
| Maximum voltage in common mode     | 1/10 = $\pm$ 50 V<br>1/100 = $\pm$ 600 V  |                     | 1/20 = $\pm$ 100 V<br>1/200 = $\pm$ 600 V                            |
| Common mode rejection              | 80 dB at 50 Hz, 50 dB at 1 MHz  |                     |  |
| Measurement leads                  | 2 x removable screened BNC/Banana leads<br>2.00 m (approx.)                                   |                     | Set(s) of removable banana leads<br>1.10 m (approx.)                 |
| <b>COAXIAL OUTPUTS</b>             |   |                     |  |
| Maximum level                      | $\pm$ 4 V with 1 M $\Omega$ load  |                     | $\pm$ 3 V with 1 M $\Omega$ load                                     |
| Output impedance                   | 50 $\Omega$   |                     |  |
| Noise level                        | 10 mVdc   |                     |  |
| Residual offset voltage            | < 10 mV   |                     |  |
| Coaxial output cables              | Removable cables (short) 20 cm approx.  |                     | Fixed cables (long) 1.10m approx.                                    |
| <b>OPERATING MODES</b>             |   |                     |  |
| Oscilloscope type                  | Class 1 oscilloscope only, with safety earth connection                                       |                     |  |
| For use with coaxial/banana cables | YES   | NO                  | NO   |
| For use with set of banana cables  | NO  | YES                 | YES<br>clipped to rear of casing                                     |
| For use with Oscilloscope Probes   | YES   | NO                  | NO   |
| <b>GENERAL SPECIFICATIONS</b>      |   |                     |  |
| Mains power supply                 | 230 VAC $\pm$ 10 % 50/60 Hz<br>300 V - CAT II   |                     | N/A  |
| Battery power supply               | N/A   |                     | 1 9 V battery (6LF22, 6LR61)   |
| Consumption / Autonomy             | Consumption < 5 W   |                     | Autonomy 18 H approx.  |
| Operating temperature              | from 0 to 50 °C   |                     |  |
| Relative humidity                  | < 80 % up to 31 °C  |                     |  |
| Protection rating                  | IP 40   |                     |  |
| LVD Safety                         | IEC 61010-1 (2001), Environment: altitude < 2000 m - pollution level 2, for interior use      |                     |  |
| EMC                                | NF EN 61326-1 (07/97) + A1 (10/98) + A2 (2001)  |                     |  |
| Dimensions                         | 270 x 250 x 63 mm   |                     | 163 x 62 x 40 mm   |
| Weight                             | 1,2 kg  |                     | 195 g (including battery)  |
| Warranty                           | 2 years   |                     |  |

#### Standard accessories:

**MX9030-Z** = 1 Single-channel probe with BNC output socket, including 1 standard 9 V battery, 1 set of PVC Banana leads 1.10m (P01.2952.37-Z), 1 set of industrial standard crocodile clamps (P01101848), 1 Fitting Accessories Kit for fitting to MTX Oscilloscope (interior of Probe case), 1 user manual.

**MTX1032-C** = 1 x 2-channel probe in MTX Pack, 2 short BNC leads 20 cm, 1 set of 2 shielded BNC-banana leads 2 m (AG0484), 2 crocodile clamps for Probe (HX0008), 1 European standard mains lead, ), 1 fitting accessories kit for fitting to MTX oscilloscope (interior of probe case), 1 user manual.

**MTX1032-B** = 1 x 2-channel probe in MTX Pack, 2 short BNC leads 20cm, 2 sets of PVC banana leads 1.10 m (P01.2952.37-Z), 1 European standard mains lead, 1 user manual.

#### Optional accessories (for MTX1032-C):

**HX0004** = Safety voltage probe, ratio 1/10, 250 MHz, 1000 V-CAT II / 600 V-CAT III

**HX0007** = Hooked wire-grip for probe HX0003 or HX0004

**P01.1018.48** = Set of 2 industrial standard crocodile clips for BNC/banana lead connections



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