

Data sheet

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HMT / HMG High Voltage Measuring Divider High Voltage Meters

50kV - 300 kV

The high voltage measuring dividers of the HMT series are designated for the precise measurement of high DC and AC voltages (up to 100 Hz) and of superimposed AC components. The measuring dividers are provided for the connection of a measuring instrument or oscilloscope / probe with 10M Ω input resistance.

The high voltage meters of the HMG series are equipped with a display device with 4½ digit digital display, which is connected to the divider by a 5m long cable. The type of voltage is switchable between DC, AC peak value and AC RMS.

Both, the measuring dividers and the meters, are available in versions "100" for 1% accuracy, or "050" for increased accuracy.



Type	Voltage max.		Accuracy		Height of divider [mm]
	DC	AC	DC	AC	
HMT 100 - 50	50 kV	40 kV	1%	1%	300
HMG 100 - 50	50 kV	40 kV	1%	1%	300
HMT 100 - 75	75 kV	60 kV	1%	1%	600
HMG 100 - 75	75 kV	60 kV	1%	1%	600
HMT 100 - 100	100 kV	80 kV	1%	1%	800
HMG 100 - 100	100 kV	80 kV	1%	1%	800
HMT 100 - 150	150 kV	120 kV	1%	1%	1200
HMG 100 - 150	150 kV	120 kV	1%	1%	1200
HMT 100 - 200	200 kV	160 kV	1%	1%	1600
HMG 100 - 200	200 kV	160 kV	1%	1%	1600
HMT 100 - 300	300 kV	250 kV	1%	1%	2000
HMG 100 - 300	300 kV	250 kV	1%	1%	2000
HMT 050 - 50	50 kV	40 kV	0,1%	0,5%	300
HMG 050 - 50	50 kV	40 kV	0,1%	0,5%	300
HMT 050 - 75	75 kV	60 kV	0,1%	0,5%	600
HMG 050 - 75	75 kV	60 kV	0,1%	0,5%	600
HMT 050 - 100	100 kV	80 kV	0,1%	0,5%	800
HMG 050 - 100	100 kV	80 kV	0,1%	0,5%	800
HMT 050 - 150	150 kV	120 kV	0,1%	0,5%	1200
HMG 050 - 150	150 kV	120 kV	0,1%	0,5%	1200
HMT 050 - 200	200 kV	160 kV	0,1%	0,5%	1600
HMG 050 - 200	200 kV	160 kV	0,1%	0,5%	1600
HMT 050 - 300	300 kV	250 kV	0,1%	0,5%	2000
HMG 050 - 300	300 kV	250 kV	0,1%	0,5%	2000

Other voltage and frequency ranges as well as special versions available on request.

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All devices are designed as a standard as:

- Real voltage divider made from precision high voltage resistors in a oil filled, hermetically sealed insulation tube
- Solid basis for stable installation
- Earthy measuring output (BNC) tuned to 10 MOhm load impedance (HMT)
- Display device with switch „DC, AC peak, AC eff.“, 4 1/2 digit numerical display and 5m cable (HMG)
- Corona ring on the high voltage end for preventing spray discharges and flash over
- The high voltage terminal is paced inside the corona ring in an area of low field strength

Possible optional equipment:

- carriage with handle and / or steering wheels with lock
- DC - peak - rectifier
- Additional BNC- output (only for HMG) for connection of a pen recorder or an oscilloscope
- Temperature monitoring
- Overvoltage protection with signalization
- Different mains or battery supply (HMG)
- calibration sheet (factory certificate or by DKD)

Technical Data:

Maximum measuring voltage and measuring accuracy: see table page 1

Frequency range: DC - 100 Hz

Measuring current at nom. voltage: HMT/ HMG 100: 1mA
HMT/ HMG 050: 0,5mA

Temperature coefficient: HMT/ HMG 100: 100 ppm / K
HMT/ HMG 050: 50 ppm / K

Max. dur. of continuous operation: HMT/ HMG 100: 1 h
HMT/ HMG 050: 3 h

Mains supply of display device (HMG): 230V \pm 10%, 50/ 60Hz

Scope of delivery:

Divider
Display device (only HMG)
Connection cable (only HMG)
Mains cable with IEC connector (only HMG)
Documentation

ATTENTION:

This dividers and high voltage meters are provided for measuring potentially hazardous voltages. Such measurements may only be carried out by trained personnel in compliance with all safety regulations. In particular, it must be ensured that no people or animals can approach the measuring dividers, while high voltage is applied. Prior to working on high voltage parts, the power has to be switched off and the parts have to be grounded properly.

By exceeding the max. permissible measuring voltage and / or time of continuous operation the measuring divider can be seriously damaged or destroyed. Such damages are not covered by the warranty.