MG 1-00 – DVB-TV Meter
Easy entry through intuitive handling

- ✓ **Quick use thanks to DVB-T/T2 and SAT alignment function**
- ✓ **Ideal for use by installers, electricians and on the construction site**
- ✓ **Measuring ranges DVB-T/-T2/T2 Lite, DVB-C/-C2 and DVB-S/-S2*** (incl. UNICABLE I and II as well as wideband LNBs)
- ✓ **Including spectrum analyser and visualisation of the constellation diagram**
- ✓ **Import of an individual frequency plan possible**
- ✓ **Level measuring range 20 ... 120 dBµV**
- ✓ **Including display of the TV picture**

*Extendable to DVB-S2x

Available devices and accessories:

MG 1-00	DVB-TV Meter
MGK 1-00	Meter calibration for MG 1-00
MGS 1-00	Software extension to DVB-S2X for MG 1-00
MGZ 1-00	Carrying bag for MG 1-00
MGZ 1-01	Rain and sun protection kit for MG 1-00
MGZ 2-00	Car charger for MG 1-00
MGZ 3-00	Measuring cable and adapter set for MG 1-00
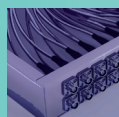
MG 1-00 – DVB-TV Meter

Qualitative measurement

The measuring device MG 1-00 supports the installation and maintenance of coaxial reception systems. It is used for the qualitative measurement of digital terrestrial television channels, satellite systems or cable networks. The device enables measurements to be made on all digital television standards such as the DVB-C/-C2, DVB-T/-T2/-T2Lite and DVB-S/-S2 standards (incl. UNICABLE I and II and Wideband LNBs). Analogue signals can be evaluated in levels. Optionally, the satellite standard DVB-S2X can be integrated.

## Touch screen – robust housing – scope of delivery

The 7-inch touch screen offers all the advantages of touch screen technology: intuitive access to functions, menus and measurements.
The robust housing with protective bumpers protects the sensitive parts of the measuring device in the field.
The built-in lithium-ion battery with 94 Wh is sufficient for up to 5 hours of operation (depending on use and a remote power supply for LNB or antenna).
Supplied with F/F adapter, charger, USB stick and carrying case MGZ 1-00.
Thanks to the AXING-MCombiner software tool supplied, measurement protocols can be created conveniently.
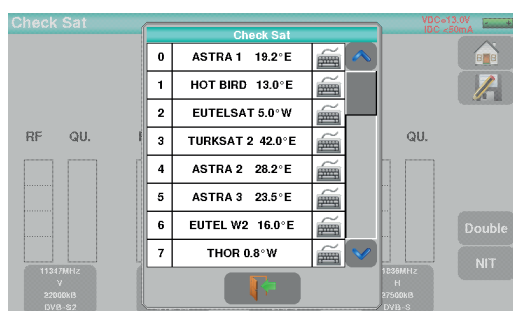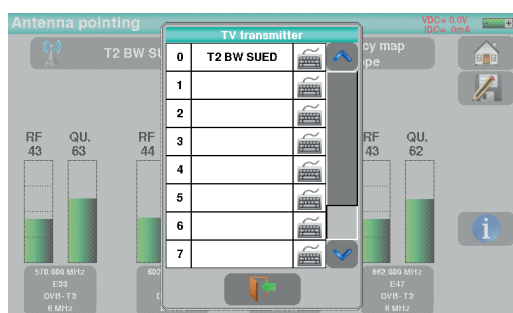
Easy to get started with the terrestrial or SAT alignment function

The meter is supplied with pre-assigned transponder memories. This enables quick alignment of a DVB-T/T2 or SAT antenna. The predefined transponders can be changed or added at any time.
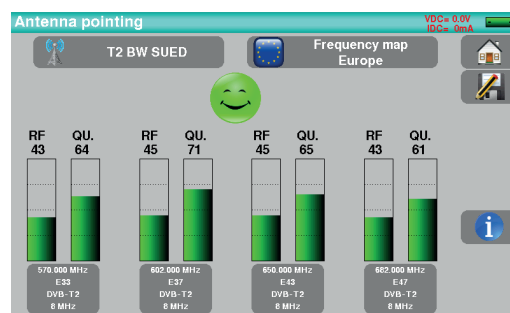
Displaying the TV picture in SD and HD

Thanks to the built-in MPEG decoder, free-to-air SD and HD programmes can be displayed cleanly. This is especially important to show the customer the function of the system. The name of the programme and all important information are also shown.
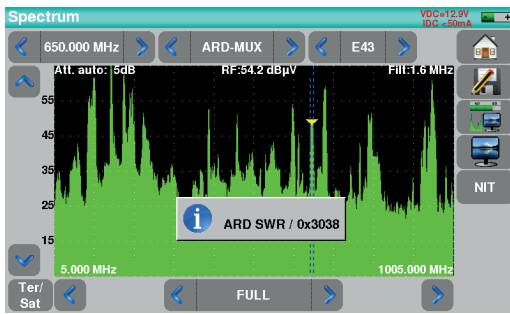
Spectrum Analyser

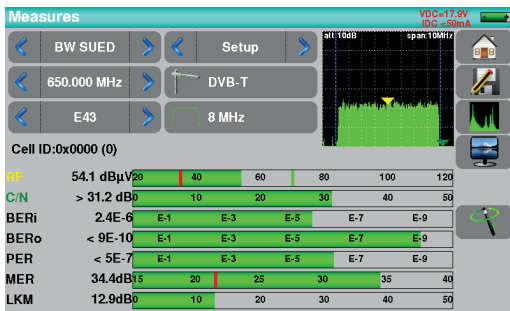With the help of the spectrum analyser, the full spectrum or a partial range of it can be analysed. The evaluation of preset transmitters facilitates the verification of a targeted satellite, for example.

Detailed measurement at a glance

During the measurement, all important measured values such as level, bit error rate (before and after the forward error correction, if applicable), packet errors, MER and system reserve are clearly displayed.

Constellation diagram

In addition to the detailed measurement values, the constellation diagram can be displayed for all supported digital signals. These graphical representations of a digitally modulated signal can be used to detect signal distortion and interference.

Accessories:

MGS 1-00

Software extension for MG 1-00
For measuring DVB-S2X modulated satellite signals
The measuring device must be reprogrammed at AXING

MGZ 3-00

Measuring cable and adapter set for MG 1-00
I2.0 m measuring cable
IEC-female to F-female
IEC-male to F-female
IEC-male to F-male, Quickfix
IEC-female to F-male, Quickfix
F-male, Quickfix to IEC-female

MGK 1-00

Meters must be calibrated at regular intervals. The measuring device must be sent to the factory for this and is checked and recalibrated

MGZ 1-01

Rain and sun protection kit for MG 1-00
Rain cover for working even in the rain
Glare protection for mounting above the display
Belt clip

MGZ 2-00

Car charger for MG 1-00
For charging the device in the car
DC/DC converter 12V to 15V/1A
With adapter for car cigarette lighter and hollow plug 5.5 mm

MGZ 1-00

Replacement for the carrying bag supplied with the MG 1-00

Specifications	CATV / Terrestrial				SAT		
Frequency							
Range	5 - 1005 MHz				200 - 2400 MHz		
LNB type	-				C | Ku | Ku WIDEBAND (LO adjustable)		
Level measurements							
Dynamic range	20 - 120 dBµV						
Units	dBµV | dBmV | dBm						
Accuracy	±2 dB ±0.05 dB/°C						
Resolution	0.1 dB						
Standards	DVB-T/T2/T2Lite | DVB-C/C2 | BG | DK | I | L | MN | DAB | FM carrier				DVB-S/S2/S2X* | PAL | SECAM | NTSC carrier		
Digital measurements	DVB-T	DVB-T2/T2lite	DVB-C (J83.A)	DVB-C2	DVB-S	DVB-S2	DVB-S2X*
Packet errors and link margin (LKM)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Modulation Error Ratio (MER)	15 - 35 dB	15 - 35 dB	20 - 40 dB	25 - 35 dB	0 - 20 dB	0 - 20 dB	0 - 20 dB
Sensitivity	35 dBµV	35 dBµV	< 55 dBµV	< 55 dBµV	47 dBµV	47 dBµV	47 dBµV
Bandwidth	6 | 7 | 8 MHz	1.7 | 5 | 6 | 7 | 8 MHz	-	6 | 8 MHz	-	-	-
Mode	-	-	-	PLP and data slice, simple or multiple	-	-	-
Carrier	2k, 8k	1k | 2k | 4k | 8k | 16k | 32k + band extension	-	-	-	-	-
Constellations	QPSK, 16 - 64 QAM	QPSK, 16 - 256 QAM	16, 32, 64, 128, 256 QAM	16, 64, 256, 1024, 4096 QAM	QPSK	QPSK, 8PSK, 16, 32APSK	QPSK, 8PSK, 8, 16, 32APSK-L
Symbol rate	-	-	1 - 7.224 MS/s	-	1 - 50 MS/s	1 - 50 MS/s	1 - 50 MS/s
HP/LP - PLP - Data Slice	HP/LP	PLP	-	PLP + Data Slice	-	-	-
Multistream	-	-	-	-	-	stream selection 0 - 255 (ISI) S descrambling (Gold code)	stream selection 0 - 255 (ISI) LS descrambling (Gold code)
Spectrum analysis							
Span	1MHz to full span in 1, 2, 5 steps						
Sweep time	Min. 100 ms, max. 1000 ms						
Filters	1.6 kHz | 3.2 kHz | 8 kHz | 16 kHz | 32 kHz | 80 kHz | 160 kHz | 320 kHz | 800 kHz | 1.6 MHz | 3.2 MHz						
Attenuator	automatic (0 to 55 dB, in 5 dB steps)						
Display / Dynamic range	60 dB (10 dB/div)						
Antenna Check mode							
Settings	fast antenna pointing		-	-	fast antenna pointing, single or monoblock LNB		
	10 places		-	-	30 satellites, with European database loaded		
	check 4 channels per place, can be modified by user		-	-	check 4 transponders per satellite, can be modified by user		
Remote supply and control							
Supply	5/13/18/24 V | 500 mA max. (300 mA @ 24 V)				13/18 V | 500 mA max.		
DiSEqC	-		-	-	DiSEqC 2.1 | dish rotor control | committed & uncommitted switches		
DCSS	-	-	-	-	EN 50494 (UNICABLE I) | max. 8 user bands EN 50607 (UNICABLE II) | max. 32 user bands		
Audio/Video							
Audio	MPEG-1 | MPEG-2 | AAC | HE AAC | Dolby® Digital | Dolby® Digital Plus						
Video	MPEG-2 SD and MPEG-4 HD (H.264)						
Service tables	SDT | LCN						
RF input							
Input	75 Ohms, (F-F adaptor supplied)						
Max. permitted voltage	50 VDC, 33 Veff / 50 Hz max.						
Analog video input							
Connector	3.5 mm jack | 4 contacts						
Level	video 1 Vpp max. | audio 10 kOhms						
Standards	PAL | SECAM | NTSC						
Input/output							
Interfaces	USB-A / V1.1 (Full Speed) | Ethernet 10/100 BaseT						
Operation voltage	15 V / 1 A with 5.5 mm jack						
General specifications							
Display	Color LCD TFT | 7 inches | 16:9 | backlight (500 cd/m²) | resolution 800 × 480 | capacitive touch screen						
Operating voltage	15 VDC						
Battery (non-removable)	Lithium Ion with 94 Wh**						
Operating time	terrestrial: 5 h | satellite: 3 h (depending on use case)						
Charging time	6:45 h:min for 80 % | 9:30 h:min for 100 %						
Operating temperature range	−5 °C to 40 °C						
Storage temperature	−10 °C to 60 °C						
EMC and safety	NF-EN 61326-1 | NF-EN 61326-2 | NF-EN 61010-1						
Dimensions (W × H × D)	250 × 165 × 65 mm³						
Weight	1.35 kg						
External power supply	110/230 VAC | 15 VDC / 1 A						

* Only with software extension MGS 1-00 | **From serial number ... 6000
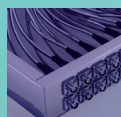
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