

## ¼ λ Mobile Antenna for the 160 MHz Band

### DESCRIPTION

- Black-chromed, conical stainless steel whip.
- Elegant transition between whip and mounting surface due to slim-line mount.
- 30° tiltable whip.
- Stainless steel X-mount with M6-thread whip-fastening system.
- Simple mounting exclusively with access from the outside.
- Models available with X-mount (oblong), XG-mount (oblong with GPS), CX-mount (circular) and MM-mount (magnetic).
- Choose between four connection possibilities:
  - X-mount, CX-mount, MM-mount: FME-connection (supplied without cable).
  - XP4-mount, CXP4-mount: Permanently attached 4 m cable terminated with FME-connector.
  - XG-Combi mount: FME-connection and GPS (supplied without cable).
  - XGP4-Combi mount: Permanently attached 4 m cable terminated with FME-connector for whip and 0.15 m RG 178 with MFME for GPS.
- Easily removable whip for car wash.
- GPS-antenna for fixed installations.
  - Full hemispherical coverage.
  - Built-in high-gain, low-noise amplifier.
  - Right-Hand Circular Polarization (RHCP).
  - 2.85 V - 5 V supply voltage (typical 3 V).



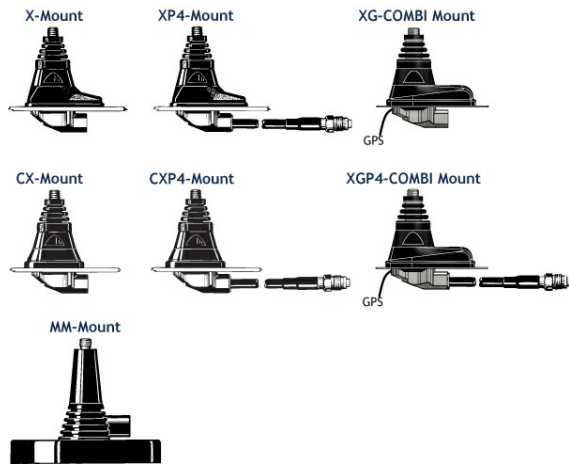
### SPECIFICATIONS

Electrical	
Model	MH 1-XR, MH 1-XGR, MH 1-CXR, MH 1-MMR
Frequency	Tunable by cutting within : 144...175 MHz (Also applicable : 175...480 MHz)
Antenna Type	Mobile whip antenna
Max. Input Power	150 W Max. Power for models incl. GPS, is reduced to 30 W
Polarisation	Vertical
Impedance	50 Ω
VSWR	≤ 1.3 @ f. res.
Bandwidth	≥ 15 MHz @ VSWR ≤ 2.0
Gain (EIA RS-329-1)	0 dB
Mechanical	
Materials	Whip : Black-chromed Conical stainless steel Black-chromed brass Mount : Black-chromed brass Weather- and shockproof plastics Stainless steel
Installation Torque	4 ± 1 Nm
Colour	Black
Height	Approx. 550 mm / 21.65 in.
Weight	X-version : Approx. 70 g XP4-version : Approx. 210 g CX-version : Approx. 70 g CXP4-version : Approx. 210 g XG-version : Approx. 90 g XGP4-version : Approx. 230 g MM-version : Approx. 310 g

### ORDERING

Model	Product No.	Description
MH 1-XR	130000708	X-mount (oblong) with FME-system
MH 1-XP4R	130000710	XP4-mount with 4 m cable and FME-connector (oblong)
MH 1-XGR	130002059	XG-Combi mount (oblong) with FME-system and GPS
MH 1-XGP4R	130002063	XGP4-Combi mount with 4 m cable and FME-connector (oblong) and GPS
MH 1-CXR	130000709	CX-mount with FME-system (circular)
MH 1-CXP4R	130000711	CXP4-mount with 4 m cable and FME-connector (circular)
MH 1-MMR	130000707	MM-mount with FME-system (magnetic)

THE WHIP IS COMPATIBLE WITH ALL BELOW MOUNTS



**INSTALLATION AND ASSEMBLY INSTRUCTIONS**

Please refer to the data sheet of each individual mount to find the installation and assembly instructions.

**PLEASE NOTE**

For safety reasons: Do not operate the MiniMag with antenna whips longer than 60 cm. Please respect the maximum car speed limit corresponding to a particular whip length as appears from the above curve.

**TUNING**

The antenna should always be tuned using an VSWR-meter. The cutting diagrams below serve as a guide for this procedure.

