

# MH 1-XR, MH 1-XGR, MH 1-CXR, MH 1-MMR

## ¼ λ Mobile Antenna for the 160 MHz Band

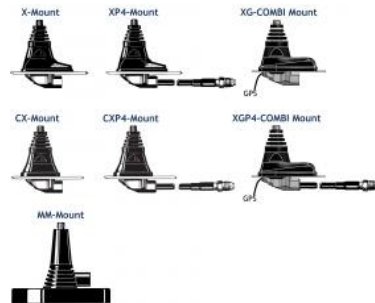
- Black-chromed, conical stainless steel whip.
- Elegant transition between whip and mounting surface due to slim-line mount.

### DESCRIPTION

- 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).



### THE WHIP IS COMPATIBLE WITH ALL BELOW MOUNTS



### ORDERING DESIGNATIONS

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

SPECIFICATIONS

ELECTRICAL	
MODEL	MH 1-XR, MH 1-XGR, MH 1-CXR, MH 1-MMR
ANTENNA TYPE	¼ λ mobile whip antenna
FREQUENCY	Tunable by cutting within: 144...175 MHz (Also applicable: 175...225 MHz)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	0 dB (acc. to EIA RS-329-1)
BANDWIDTH	≥ 15 MHz @ SWR ≤ 2.0
SWR	≤ 1.3 @ f. res.
MAX. POWER	150 W

MECHANICAL	
MATERIALS	<b>Whip:</b> Black-chromed Conical stainless steel Black-chromed brass <b>Mount:</b> Black-chromed brass Weather- and shockproof plastics Stainless steel
RECOMMENDED INSTALLATION TORQUE	4 ± 1 Nm
COLOUR	Black
HEIGHT	Approx. 55 cm
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

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 SWR-meter.  
The cutting diagrams below serve as a guide for this procedure.

