

## ¼ λ Mobile Rubber Antenna for the 160 MHz Band

### DESCRIPTION

- > High-flexibility rubber whip with cast-in steel-wire radiating element.
- > Ideal where the whip may be exposed to mechanical shock or severe deflection when driving under low objects.
- > Stainless steel Z-mount with ball-joint and wing screw whip-fastening system.
- > Simple mounting exclusively with access from the outside.  
Models with roof thickness from 2 mm to 7.5 mm mounting from the inside.
- > Choice between two connection principles:
  - > Z-mount: FME-connection (supplied without cable).
  - > ZP4-mount: Permanently attached 4 m cable terminated with FME-connector.



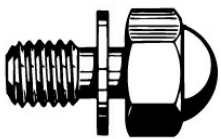
### ORDERING

Model	Product No.	Description
MH 4-Z	130000763	Z-mount with FME-system
MH 4-ZP4	130000766	ZP4-mount with 4 m cable and FME-connector

### MOUNTS



#### Hat screw option:



For antenna delivered with hat screw instead of wing screw add a K to the antenna designation.

### SPECIFICATIONS

Electrical	
Model	MH 4-Z
Frequency	Tunable by cutting within: 144 - 175 MHz (Also applicable: 175 - 225 MHz)
Antenna Type	¼ λ mobile whip antenna
Max. Input Power	150 W
Polarisation	Vertical
Impedance	50 Ω
VSWR	≤ 1.3:1 @ f.res.
Bandwidth	≥ 15 MHz @ SWR ≤ 2.0
Gain (EIA RS-329-1)	0 dB

Mechanical	
Materials	Whip: Multicore steel wire moulded in elastomer Chromed brass Mount: Chromed brass Weather- and shockproof plastics Stainless steel
Installation Torque	7.5 ±1 Nm
Colour	Black
Height	Approx. 490 mm / 19.29 in.
Weight	Z-version: Approx. 200 g / 0.44 lb. ZP4-version: Approx. 350 g / 0.77 lb.
Mounting	21 mm dia. hole (For roof thicknesses 2 mm up to 7.5 mm mounting hole should be 22 mm dia.)
Mounting Plate Thickness	Max. 2.0 mm (Models up to 7.5 mm on request)

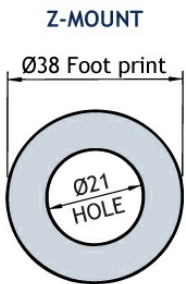
**INSTALLATION**

This antenna is provided with type Z-mount. The whip is fastened to the mount by means of our standard ball-joint and wing screw system. The adjustable ball-joint ensures that the whip can always be mounted in a vertical position independent of the angle of the installation spot.

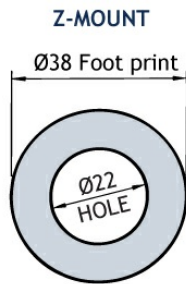
The Z-mount is particularly well suited for mounting on car-roofs because of its ability to be installed exclusively with access from the outside. The Z-Mount for roof thickness from 2 mm to 7.5 mm must be mounted from the inside.

However, the antenna can be installed anywhere on the car, as the Z-mount is equally well suited for mounting on e.g. trunk or wing.

**1. INSTALLATION DIMENSIONS**

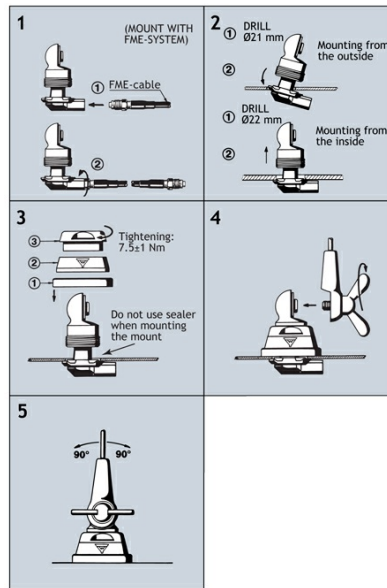


Build- in depth: 10.5 mm  
Mounting from the outside



Build- in depth: 10.5 mm  
Mounting from the inside

**2. INSTALLATION STEPS**



Do not use sealer on rubber gasket or other places.

**3. TUNING**

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

