

## 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.



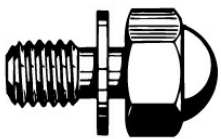
### ORDERING

| 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:<br>Multicore steel wire moulded in elastomer<br>Chromed brass<br>Mount:<br>Chromed brass<br>Weather- and shockproof plastics<br>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.<br>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)  |

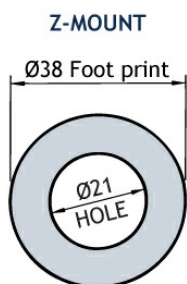
### INSTALLATION

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.

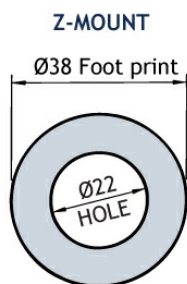
The Z-mount is particularly well suited for mounting on car-roofs because of its ability to be installed exclusively with access from the outside. The Z-Mount for roof thickness from 2 mm to 7.5 mm must be mounted from the inside.

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

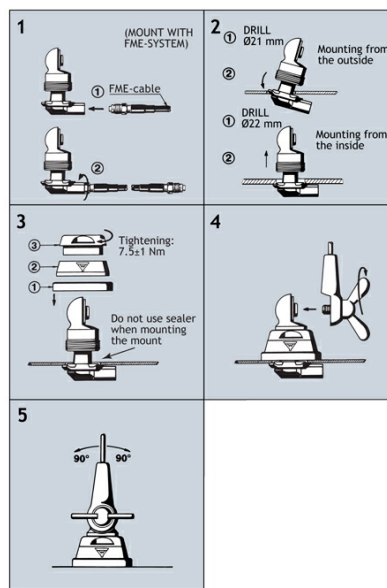


Build- in depth: 10.5 mm  
Mounting from the outside



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.

