

## 450 MHz / 900 MHz Dual-frequency Mobile Antenna

### DESCRIPTION

- Ready-tuned and unity gain on both bands.
- Stainless steel ZG-mount with M8-thread whip-fastening system.
- This antenna makes it possible to:
  - operate 450 MHz and 900 MHz transceivers alternately on the same antenna
  - operate two transceivers (450 and 900 MHz) at the same time on one antenna using a diplexer
  - (type DIPX 500/800 – to be ordered separately)
  - operate a dual-frequency transceiver (450 and 900 MHz) on one antenna (diplexer not required).
- Simple mounting exclusively with access from the outside.
- Choice between two connection principles: ZG-mount : FME-connection (supplied without cable).
- ZGP4-mount : Permanently attached 4 m cable terminated with FME-connector.



### ORDERING

Type	Product No.
DFA 450/900-ZG/...	130001491
DFA 450/900-ZGP4/...	130001119

### SPECIFICATIONS

Electrical	
Model	DFA 450/900-ZG/...
Frequency	450 MHz-frequency to be stated within: 380-470 MHz 900 MHz-frequency to be stated within: 800-960 MHz
Antenna Type	Dual-frequency mobile antenna
Max. Input Power	50 W
Polarisation	Vertical
Impedance	50 Ω
Bandwidth	450 MHz: > 25 MHz @ SWR = 2.0:1 (typ.) 900 MHz: > 80 MHz @ SWR = 1.5:1 (typ.)
Gain (EIA RS-329-1)	0 dB

Mechanical	
Materials	Whip: Black glassfiber Black-chromed brass Mount: Black-chromed brass Environment-proof plastics. Stainless steel
Installation Torque	7.5 +/- 1 Nm
Colour	Black
Height	160 mm / 6.30 in.
Weight	ZG-version: Approx. 70 g ZGP4-version: Approx. 250 g
Mounting	21 mm dia. hole

## ADDITIONAL DATA

## FME-SYSTEM ACCESSORIES

FME-CABLES	
LENGTH	TYPE NO.
1 m	1 m FME
2 m	2 m FME
3 m	3 m FME
4 m	4 m FME
5 m	5 m FME
6 m	6 m FME
4 m white	4 m FME-white
6 m white	6 m FME-white
12 m white	12 m FME-white
18 m white	18 m FME-white

For further information about other types of FME-cables please compare the cable data sheets under accessories in our catalogue.

FME-CONNECTORS	
CONNECTOR	ORDER NO.
FME-FME	FME-FME
Prolongation	FMEP
N	FME-N
FSMA	FME-FSMA
BNC	FME-BNC
TNC	FME.TNC
UHF	FME-UHF
Mini-UHF	FME-MUHF
Elbow-MUHF	FME-EMUHF
Elbow-BNC	FME-EBNC
Elbow-TNC	FME-ETNC
SMA	FME-SMA

## INSTALLATION

The ZG-mount is designed for mounting in a 21 mm dia. hole on horizontal surfaces as e.g. roof top or trunk lid, with access from the outside only.

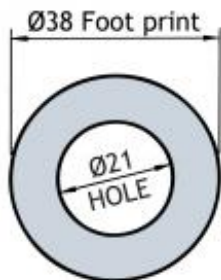
A good contact surface on the inside of the car body must always be ensured, thus enabling the base plate to get in direct contact with the metal parts of the car, which is of utmost importance for proper performance of the antenna.

The ZG-mount is provided with an M8 x 1 thread mount system. This construction meets the demand for a low profile mobile mount with a slim appearance and with protection against theft of the antenna whip.

When cleaning the car in car-washing machines, the whip is easily removed using a fork spanner. The whip is refitted again by screwing it onto the thread stud and tightening it with the spanner.

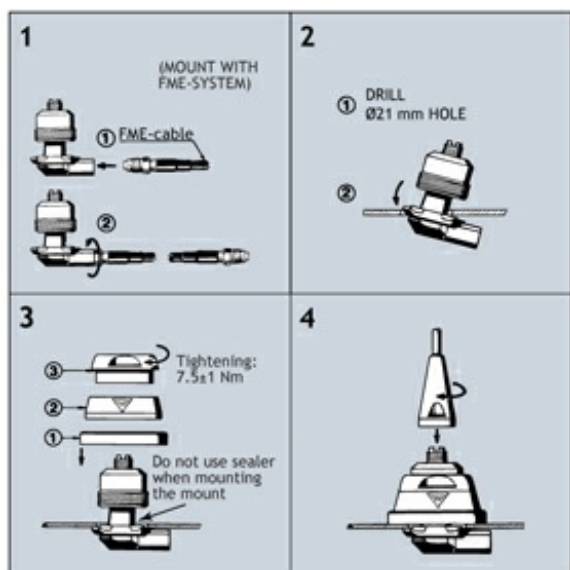
## 1. INSTALLATION DIMENSIONS

ZG-MOUNT



Build- in depth: 10.5 mm

2. INSTALLATION STEPS

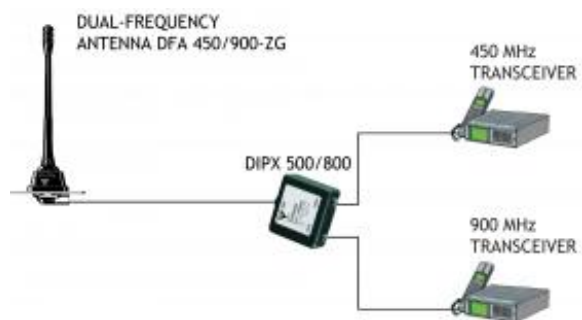


Do not use sealer on rubber gasket or other places.

Several advantages are gained by using only one antenna. Only one single hole has to be drilled into the car body, only one cable installation has to be run, the car appearance is not destroyed by carrying several whips and also, it may be a particular demand that it should not be too obvious to see that the car is equipped with transceiving equipment.

In case of operating two transceivers on one antenna at the same time, a diplexer, type DIPX 500/800, is necessary to complete the system. (See the coupling diagram below). The tasks of the diplexer are to protect the two receiver inputs from being destroyed by the transmitter in the contrary band, and to ensure a low-loss path between the transceiver and the antenna, which is not loaded by the other branch. For further details please see the separate data sheet on the DIPX 500/800. The diplexer fully covers both bands and, consequently, tuning to specific frequencies is not required.

COUPLING DIAGRAM



### MOUNTING



All whips are compatible with all mounts