# 400 MHz / 900 MHz Dual-frequency Mobile Antenna



## DESCRIPTION

- Ready-tuned and unity gain on both bands.
- Stainless steel X-mount with M6-thread whip-fastening system.
- This antenna makes it possible to:
  -operate 400 MHz and 900 MHz transceivers alternately on the same antenna-operate two transceivers (400 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 (400 and 900 MHz) on one antenna (diplexer not required)
- Simple mounting exclusively with access from the outside.
- Models available with X-mount (oblong) or CX-mount (circular).
- XP4-mount: Permanently attached 4 m cable terminated with FME-connector.

## SPECIFICATIONS

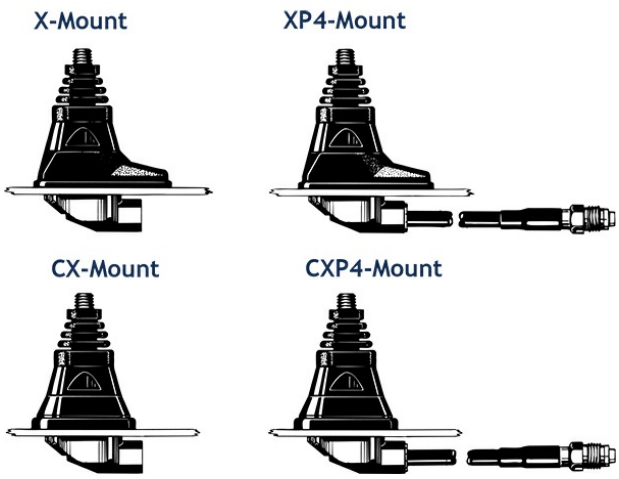
| Electrical | |
|---|---|
| Model | DFA-FLX-X/410-430/890-960 MHz |
| Frequency | 400 MHz-frequency to be stated within : 410-430 MHz.<br>900 MHz-frequency to be stated within : 890-960 MHz. |
| Antenna Type | Dual-frequency mobile antenna |
| Max. Input Power | 25 W |
| Polarisation | Vertical |
| Impedance | 50 Ω |
| VSWR | ≤ 1.5 @ f. res. |
| Bandwidth | 400 MHz : > 20 MHz @ VSWR ≤ 2.5:1 (typ.)<br>900 MHz : > 70 MHz @ VSWR ≤ 2.0:1 (typ.) |
| Gain (EIA RS-329-1) | 0 dB |

| Mechanical | |
|---|---|
| Materials | Whip : Silicone tube over flexible steel wire.<br>Black-chromed brass.<br>Mount : Black-chromed brass.<br>Environment-proof plastics.<br>Stainless steel. |
| Installation Torque | 4 ±1 Nm |
| Colour | Black |
| Height | Approx. 125 mm / 4.92 in. |
| Weight | X-version : Approx. 60 g. / 0.13 lb.<br>XP4-version : Approx. 200 g. / 0.44 lb. |
| Mounting | 18 mm / 0.71 in. dia. hole. |

## ORDERING

| Model | Product No. |
|---|---|
| DFA-FLX-X/410-430/890-960 MHz | 130001912 |

## THE WHIP IS COMPATIBLE WITH ALL BELOW MOUNTS




## PLEASE NOTE

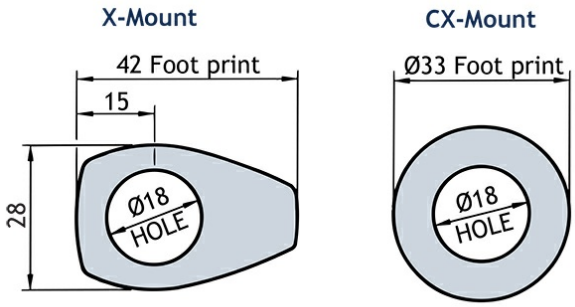
When ordering, the operating frequencies in both bands must be stated. In case of duplex operation please specify Tx and Rx frequencies. In case of application for CELLULAR systems please state names of CELLULAR networks.

## INSTALLATION

This antenna should be mounted on the car roof to ensure best omnidirectional coverage. Mounting can take place exclusively with access from the outside when drilling an 18 mm dia. hole. Mounting can take place from the inside by drilling a 14 mm dia. hole. When mounting in a 14 mm dia. hole, remove the bottom plastic ring of the packing gasket with a sharp cutter.

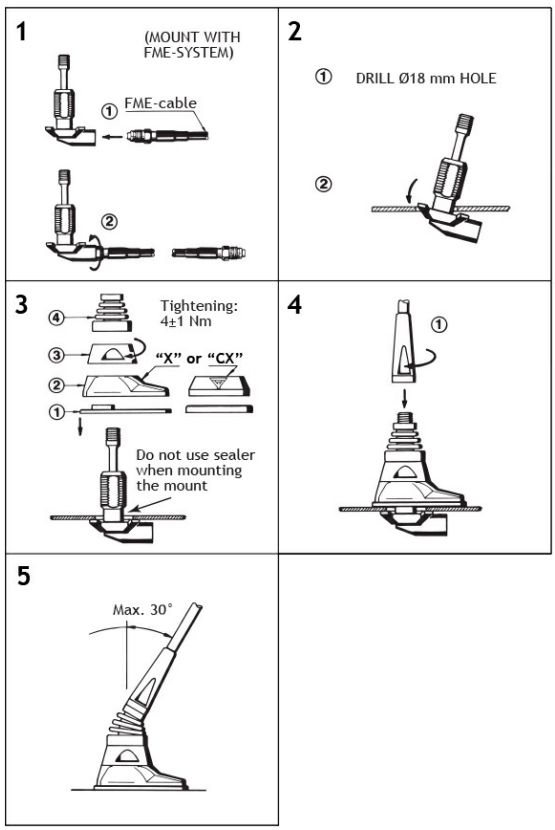
When cleaning the car in car-washing machines, remove the whip using a spanner, size 9 mm. After wash, refit the whip and tighten it lightly with the spanner.

## 1. INSTALLATION DIMENSION




Build-in depth: 11 mm

## 2. INSTALLATION STEPS




Do not use sealer on rubber gasket or other places.

## 3. OPERATION USING A DIPLEXER

Several advantages are gained by using only one antenna. Only one single hole has to be drilled into the car body, only one cabl 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.

## CONNECTION DIAGRAM

