

# colinear 4 dB Mobile Antenna for the 450 MHz Band

## **DESCRIPTION**

- > 4 dB mobile antenna series with colinear, stainless steel whip with toggle joint.
- Models with Z-mount or MG-magnetic mount.
- Choice between Z-mount with FME-connection (supplied without cable) or ZP4-mount with factory fitted 4 m cable terminated with FME-connector.
- MG-models provided with FME-connection directly on the mount (without cable).
- Z-type models available in bright or black chromed versions. MG-models available in bright polished only.

Whips from the Z/ZP4 mounts and the MG-mount are  $\,$  NOT compatible.

Hat screw option (Z-/ZP4-type models only): By adding a K to the antenna designation the antenna is delivered with hat screw and key instead of wing screw.



#### **SPECIFICATIONS**

Electrical			
Model	MU 4-Z/		
Frequency	Models within 380 - 470 MHz		
Antenna Type	Collinear stainless steel mobile whip antenna		
Polarisation	Vertical		
Impedance	50 Ω		
Maximum Input Power	100 W		
Bandwidth	> 15 MHz @ SWR = 1.5 > 30 MHz @ SWR < 2.5		
Gain (EIA RS-329-1)	4 dB		

Mechanical				
Materials	Whip: Stainless steel and brass, bright polished/chromed or black-chromed Mount: Chromed brass (bright or black) Weather- and shockproof plastics Stainless steel			
Installation Torque	7.5 +/- 1 Nm			
Colour	Bright or black (see above)			
Height	59 mm / 2.32 in.			
Weight	Z-version: Approx. 230 g ZP4-version: Approx. 370 g MG-version: Approx. 930 g			
Mounting	21mm dia. hole (For roof thicknesses 2 mm up to 7.5 mm mounting hole should be 22mm dia.) $$			
Mounting Plate Thickness	Max. 2.0 mm (Models up to 7.5 mm on request)			

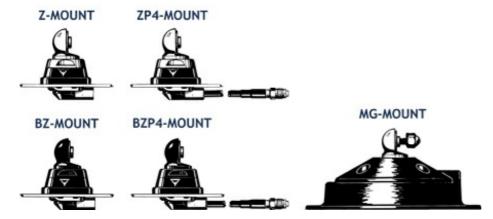


## ORDERING

Туре	Product No.	Description	Frequency
MU 4-MG/s	130000902		380410 MHz
MU 4-MG/f	130000903		406430 MHz
MU 4-MG/h	130000904		440470 MHz
MU 4-MG/I	130000905		420450 MHz
MU 4-MG/CEL3	130000906		425 - 440 MHz
MU 4-MG/CEL1	130000906		450 - 470 MHz
MU 4-MG/CEL4	130000955		414 - 430 MHz
MU 4-BZ/f	130001001	BZ-mountwith FMEBLACK	406430 MHz
MU 4-BZP4/f	130000977	BZP4-mountwith 4 m cableBLACK	406430 MHz
MU 4-BZ/h	130001004	BZ-mountwith FMEBLACK	440470 MHz
MU 4-BZP4/h	130000987	BZP4-mountwith 4 m cableBLACK	440470 MHz
MU 4-BZ/I	130000997	BZ-mountwith FMEBLACK	420450 MHz
MU 4-BZP4/I	130000993	BZP4-mountwith 4 m cableBLACK	420450 MHz
MU 4-BZ/CEL4	130001010	BZ-mountwith FMEBLACK	414 - 430 MHz
MU 4-BZ/CEL1	130001000	BZ-mountwith FMEBLACK	450 - 470 MHz
MU 4-BZP4/ CEL1	130000988	BZP4-mountwith 4 m cableBLACK	450 - 470 MHz
MU 4-BZP4/ CEL4	130000989	BZP4-mountwith 4 m cableBLACK	414 - 430 MHz
MU 4-BZP4/ CEL3	130000991	BZP4-mountwith 4 m cableBLACK	425 - 440 MHz
MU 4-BZP4/ CEL2	130000996	BZP4-mountwith 4 m cableBLACK	440 - 455 MHz
MU 4-BZ/s	130000999	BZ-mountwith FMEBLACK	380410 MHz
MU 4-BZP4/s	130000976	BZP4-mountwith 4 m cableBLACK	380410 MHz
MU 4-Z/f	130000975	Z-mountwith FMEBRIGHT	406430 MHz
MU 4-ZP4/f	130000978	ZP4-mountwith 4 m cableBRIGHT	406430 MHz
MU 4-Z/h	130000983	Z-mountwith FMEBRIGHT	440470 MHz
MU 4-ZP4/h	130000986	ZP4-mountwith 4 m cableBRIGHT	440470 MHz
MU 4-Z/I	130000992	Z-mountwith FMEBRIGHT	420450 MHz
MU 4-ZP4/I	130000994	ZP4-mountwith 4 m cableBRIGHT	420450 MHz
MU 4-Z/CEL4	130001002	Z-mountwith FMEBRIGHT	414 - 430 MHz
MU 4-Z/CEL1	130001003	Z-mountwith FMEBRIGHT	450 - 470 MHz
MU 4-ZP4/ CEL1	130001006	ZP4-mountwith 4 m cableBRIGHT	450 - 470 MHz
MU 4-ZP4/ CEL4	130001007	ZP4-mountwith 4 m cableBRIGHT	414 - 430 MHz
MU 4-ZP4/ CEL3	130001009	ZP4-mountwith 4 m cableBRIGHT	425 - 440 MHz
MU 4-ZP4/ CEL2	130001012	ZP4-mountwith 4 m cableBRIGHT	440 - 455 MHz
MU 4-Z/s	130001015	Z-mountwith FMEBRIGHT	380410 MHz
MU 4-ZP4/s	130001016	ZP4-mountwith 4 m cableBRIGHT	380410 MHz
MU 4-MG/CEL2	130001328		440 - 455 MHz
MU 4-BZ/CEL2	130001011	BZ-mountwith FMEBLACK	440 - 455 MHz
MU 4-BZ/CEL3	130001005	BZ-mountwith FMEBLACK	425 - 440 MHz
MU 4-Z/CEL2	130001466	Z-mountwith FMEBRIGHT	440 - 455 MHz
MU 4-Z/CEL3	130001467	Z-mountwith FMEBRIGHT	425 - 440 MHz



#### ADDITIONAL DATA



Whips from the Z/ZP4 mounts and the MG-mount are NOT compatible.

Hat screw option (Z-/ZP4-type models only): By adding a K to the antenna designation the antenna is delivered with hat screw and key instead of wing screw.

#### INSTALLATION

The antenna whip comprises a  $\frac{1}{4}$   $\spadesuit$  section, a phase shifting coil, and a  $\frac{1}{2}$   $\spadesuit$  section. 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

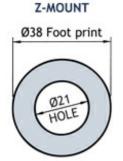
However, the antenna can be installed anywhere on the car, as the Z-mount is equally well suited for mounting on e.g. trunk or wing.

The "MG"-mount antennas are provided with a large-diameter, thoroughly magnetized permanent ring magnet with an extraordinarily high attaching effect. A silicone layer applied to the whole contact surface protects the car roof and ensures maximum friction.

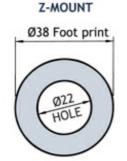
Please note that the whips from the  $\ensuremath{\text{Z/ZP4-mounts}}$  and the whips from the MG-mount are not compatible.

## 1. INSTALLATION DIMENSIONS

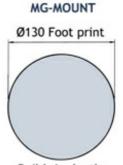
mm must be mounted from the inside.



Build- in depth: 10.5 mm Mounting from the outside



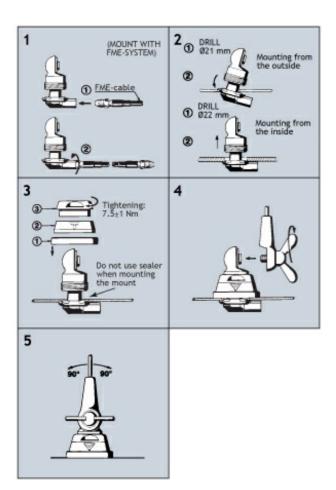
Build- in depth: 10.5 mm Mounting from the inside



Build- in depth: 10.5 mm

#### 2. INSTALLATION STEPS



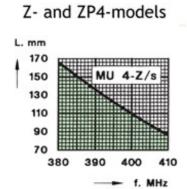


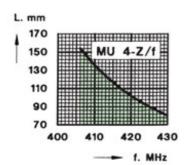
Do not use sealer on rubber gasket or other places.

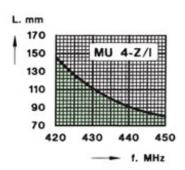
## 3. TUNING

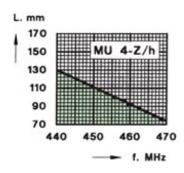
The antenna is delivered factory-tuned and requires no further tuning.

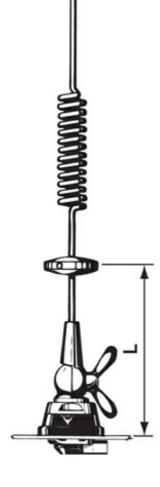




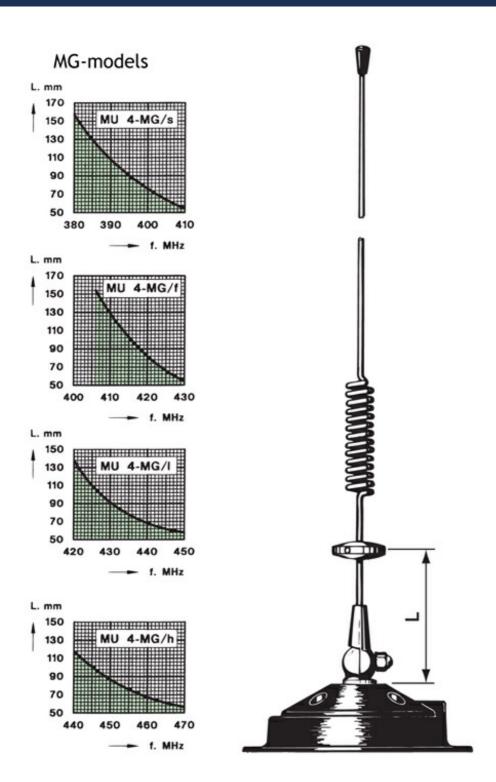












## PLEASE NOTE

For safety reasons: When using the MU 4-MG/..., car speed must not exceed 140 km/h.