

General Information

This VHF COM antenna **BFA1** has been especially developed for use with portable battery powered airband transceivers operated onboard of gas and hot-air balloons.

Your radio is only as good as the antenna!

On balloons portable COM radios are mostly equipped with rod or reduced rubber duck antennas. These antennas have a low range because of mismatch and poor efficiency. Additionally they are degraded by gas cylinders or persons nearby. TX power > 1 Watt generates already very high electromagnetic field strength in close proximity to reduced antennas. This, under certain circumstances, permits the generation of sparks and harm to human bodies.

The antenna **BFA1** is the ideal accessory for every balloonist:

- No degradation or mismatch due to rain, ice, large metal objects or persons nearby!
- No hazardous radiation to human bodies due to large effective antenna area!
- No risk of injury due to flexible design.
- Easy to fix by 6 loops, easy to keep – almost a towel!
- A durable yellow nylon cloth completely encloses the carefully designed radiating elements to ensure long dependable service in all climates!

Installation

The balloonist's antenna **BFA1** may be installed almost anywhere inside the balloon basket. In order to achieve best results, please observe:

- **DO NOT** install the antenna on sheet metal surfaces
- Fix the antenna with its long side vertically (perpendicularly)
- If possible avoid location near electrical interference sources and large metal objects (e.g. gas cylinders)
- Avoid any sharp bend of the feeding cable (radius > 50 mm)
- **NOTICE:** The UHF cable plug PL-259 is not watertight!

The antenna may be fixed with 6 Ty-Rap ties, elastic cords or hook-and-loop fasteners (not provided).

Safety Information and Restrictions for Use

Every radio, when transmitting, radiates energy into the atmosphere that may, under certain conditions, cause the generation of sparks. All users of VHF COM radios should be aware of the following warning:

Do not operate a transceiver when the antenna is in an explosive atmosphere (gas, petroleum fuels, solvents, dust, etc.) !

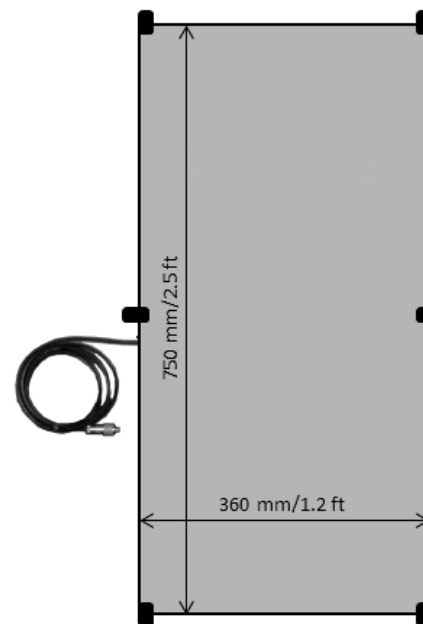
During normal use, the antenna will subject to radio energy substantially below the level where any kind of harm is reported.

- The antenna **BFA1** is not suitable for operation when in direct contact to sheet metal surfaces!
- The antenna **BFA1** is not suitable for other frequencies than 118-137 MHz.
- The antenna **BFA1** may be used exclusively in open, non-metallic or wire mesh balloon baskets. Suitability with other aircraft is not given!
- f.u.n.k.e. AVIONICS GmbH takes no liability when the antenna is used in a manner or purpose for which the equipment is not intended.

Subject to technical changes

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f.u.n.k.e. AVIONICS GmbH is certified to DIN EN ISO 9001:2015. It is an accredited manufacturer of aeronautical equipment DE.21G.0078, maintenance facility DE.145.0436, and development facility APOA-013



BFA1

VHF COM
BALLOONER'S ANTENNA
FOR THE
INTERNATIONAL AIRBAND

Artikel-No. F10314

- **Before using, please read these instructions thoroughly!**
- **Keep for future use!**
- **Please observe the Safety Information and Restrictions!**

Specifications

Model:	BFA1
Antenna Type:	Omnidirectional
Frequency:	118,000 ... 136,975 MHz
Impedance:	Nominal 50 Ohms
Polarization:	Vertical
Gain:	ca. 0 dB
Bandwidth:	> 20MHz
VSWR:	2,5:1 max.
Power:	25 Watt max.
Connector:	UHF-type PL-259, feeding cable RG58, length 3m / 9.8ft
Dimensions:	Approx. 750 mm x 360 mm x 5 mm (length x width x thickness)
Weight:	ca. 390 grams / 0.86 lb
Additional features:	Weatherproof, 94% flexible, no risk of injury by sharp or pointed parts, high efficiency, low local strength due to large effective area, insensitive against environment, e.g. no detuning and mismatch by persons or gas cylinders nearby, feeding cable protected against sheet current.

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