



Competence in Connectors

# PRODUCT INFORMATION

## FAKRA 90° FEMALE PLUG



- FAKRA RF connectors are used as standardized interfaces for high-frequency applications, such as:
  - Radio antennas (radio reception)
  - GPS telematics or navigation
  - GSM mobile communication
  - RF Bluetooth applications
  - RF remote control
  - Car2Car communication
- Approved for applications up to 6 GHz
- Developed for applications where only few installation depth is available
- Installation depth: 14.8 mm
- Different codings for error free mating
- Available for coax cables
  - RG 174 / 316 & similar
  - Low-loss 3.3 mm
- Single & twin housings available (8 mm pitch)
- Automated assembly by crimp-crimp technology
- In compliance with DIN 72594 / ISO 20860 as well as with the high requirements of leading car manufacturers
- Patented locking mechanism prevents unintentional unlocking
- 360° rotatable housing, engaging in 45° steps

Robert Karst GmbH & Co. KG | Motzener Str. 22 | D - 12277 Berlin, Germany

Tel +49 (0)30 69 00 07-0 | Fax +49 (0)30 69 00 07-42 | Mail [info@roka-berlin.de](mailto:info@roka-berlin.de) | Web [www.roka-berlin.de](http://www.roka-berlin.de)

# PRODUCT INFORMATION

## FAKRA 90° FEMALE PLUG




### ELECTRICAL SPECIFICATIONS

Impedance	50 Ω
Frequency range	DC ... 6 GHz
Return loss at 1 GHz	≥ 17 dB
Return loss at 4 GHz	≥ 14 dB
Insulation resistance	> 1000 MΩ
Electrical strength	500 V <sub>eff</sub> / 50 Hz
Working current	1,0 A DC
Contact resistance (inner contact)	≤ 5 mΩ
Contact resistance (outer contact)	≤ 5 mΩ
Insertion loss at 1 GHz	≤ 0,15 dB
Insertion loss at 4 GHz	≤ 0,3 dB

### MECHANICAL SPECIFICATIONS

Mating force	max. 25 N
Separating force	min. 5 N
Inner contact's firm seat	≥ 10 N
Cable's pull out force	≥ 100 N
Lifetime (mating cycles)	min. 50
Temperature range	-40°C to +105°C

**ROKA No. RG 174/316**     **ROKA No. low-loss 3.3**

520 848 A-Z	520 847 A-Z	Female connector, single, incl. assembled housing, crimp sleeve & cap, 360° rotatable housing, different codings, UOP 1k box	
520 405 A-Z	520 404 A-Z	Female connector, twin, incl. assembled housing, crimp sleeves & caps, 360° rotatable housing, different codings, UOP 1k box	
510 685 1	510 684 1	Inner contact, ~1k reel	
510 685 5	510 684 5	Inner contact, ~20k reel	