

FME (SAP) - Special Coaxial Connectors for Cellular Applications in Vehicles

FME- Compact miniature connectors developed for mobile applications up to 3 GHz in vehicles. The basic element is a cable jack, whose small diameter simplifies the installation of cables in vehicles. After installation, the conversion of the cable jack to other connector series can be performed simply and without space problems. FME connectors can be used for the entire frequency range from 0 to 3 GHz, due to the use of Teflon as dielectric.

Product Features

- Interface according to Schmid-M series FME, intermateable with SAP
- Quality tested according to US MIL- STD 202
- Frequency range up to 3 GHz
- VSWR (straight connector): ≤ 1.22 typ.
- Easy and uncomplicated conversion to other series.

Product Range

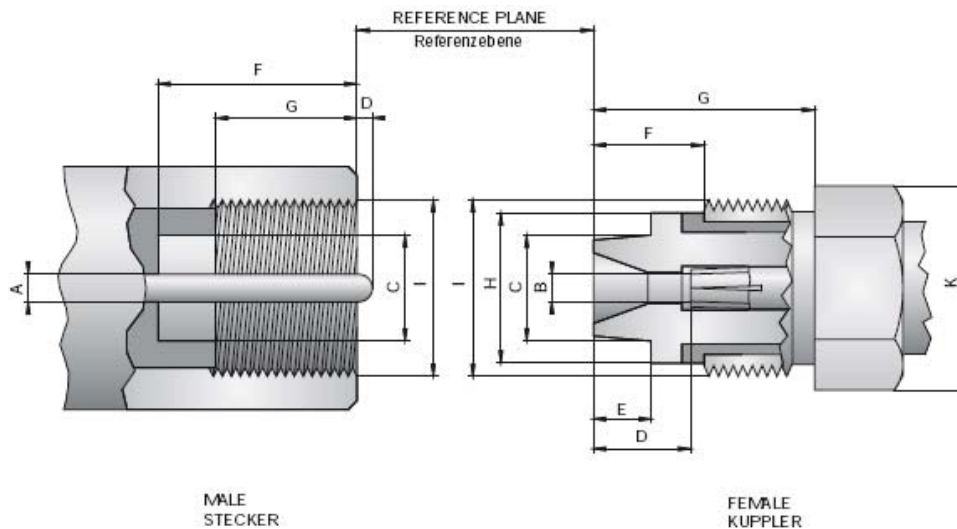
- Female cable connectors for flexible cables with diameters from 2.6 mm to 5.5 mm
- Panel connectors
- Adaptors (straight and right angle) to other series.

Further connectors are available on request.

Application Examples

Antenna connections in vehicles

Interface Dimensions



FME 50 Ohm					
MALE STECKER			FEMALE KUPPLER		
	min.	max.	min.	max.	
A	1.25 nom.				A
B			1.35 *		B
C	4.70			4.6	C
D	0.00	1.00	4.00	5.00	D
E				2.60	E
F	9.00		4.90		F
G	6.40		7.60		G
H				6.80	H
I	M8 x 0.75		M8 x 0.75		I
K				SW 8	K

* resilient, dim. to meet electrical and mechanical requirements

Technical Data

Electrical data	
Impedance	50 Ω
Frequency range (straight connectors)	0...3 GHz
VSWR (straight cable connectors)	≤ 1.22 typ.
Insertion loss	≤ 0.1 dB max./1 GHz typ.
Insulation resistance	$\geq 5 \times 10^3$ M Ω
Center contact resistance	≤ 10.0 m Ω
Outer contact resistance	≤ 5.0 m Ω
Test voltage	1000 V rms
Working voltage	500 V rms

Mechanical data

Mating cycles	≥ 300
Coupling torque	max. 2 Nm

Environmental data

Temperature range	-55°C -+125°C
Vibration	US MIL-STD 202, Meth. 204
Corrosion resistance	US MIL-STD 202, Meth. 101
Climatic class	IEC 60529

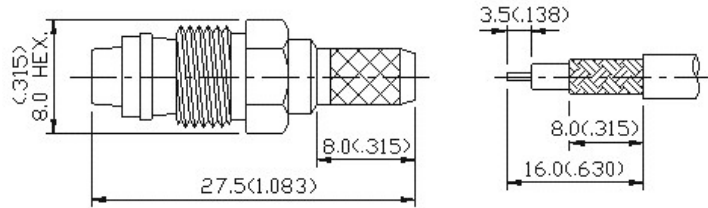
Materials

Outer contact	CuZn
Spring loaded contact parts	Bronze
Dielectric	TEFLON
Crimping ferrule	Copper alloy
Gasket	Rubber
Plating outer contact	Ni
Plating center contact	Ag

Schmid-M - connectors fulfill in principle the indicated data of the Technical Data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and execution. Specific data sheets for particular products can be provided on request from your Schmid-M sales partner.

Flexible Cable-Crimp Attachment

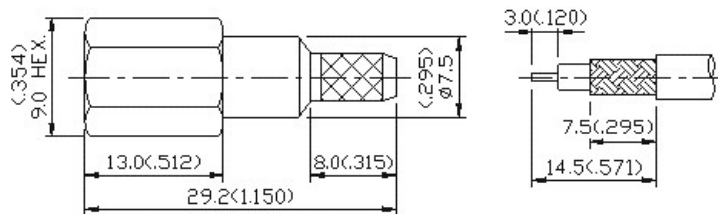
Straight Jack Crimp



Part No.	Applicable Cable RG/U
FME-1201-DGN	58, 58A, 141
FME-1202-DGN	174, 188, 316

Finish: Gold plated center contact & nickel plated body. Insulation: Delrin

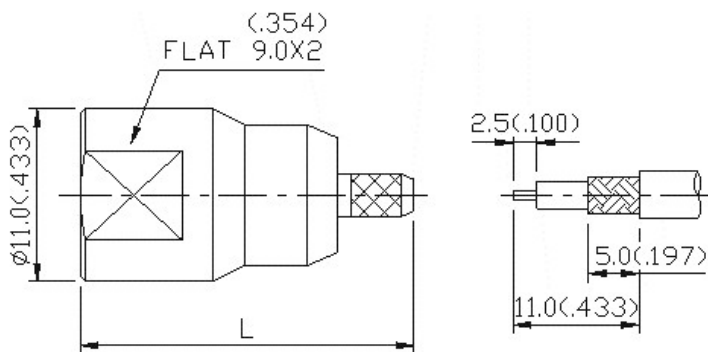
Straight Plug Crimp



Part No.	Applicable Cable RG/U
FME-1103-TGN	58, 58A, 141

Finish: Gold plated center contact & nickel plated body. Insulation: Teflon

Straight Plug Crimp



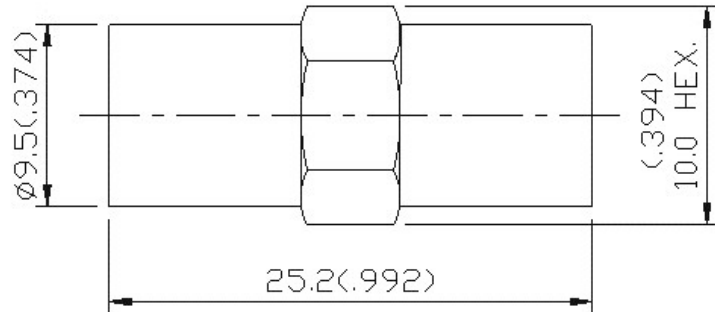
Part No.	Applicable Cable RG/U	Notes
FME-1104-TGN	58, 58A, 141	L = 23.5 mm
FME-1105-TGN	174, 188, 316	L = 21.5 mm

Finish: Gold plated center contact & nickel plated body. Insulation: Teflon

FME (SAP)

Adapters

FME Plug-FME Plug

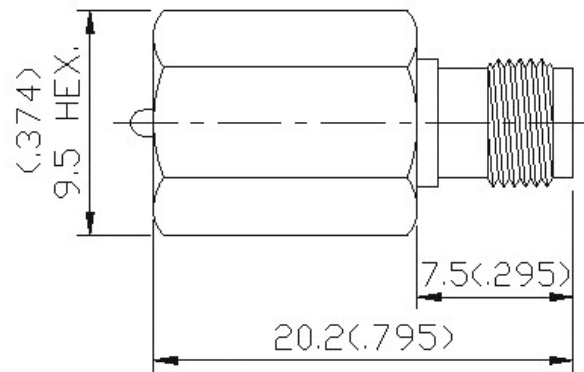


Part No.

FME-601-DGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Delrin

FME Plug-SMA Jack

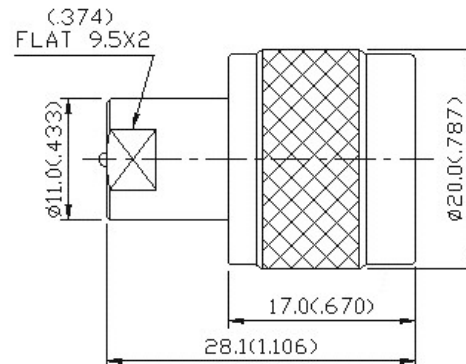


Part No.

FME-602-TGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Teflon

FME Plug-N Plug



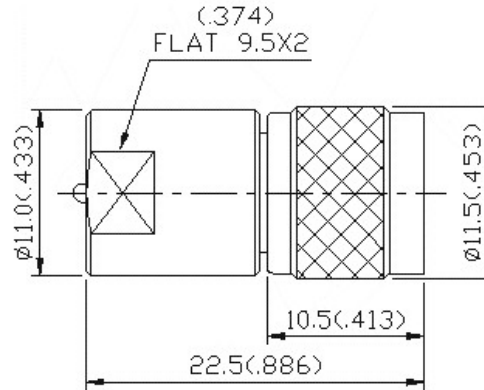
Part No.

FME-603-DGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Delrin

FME (SAP)

FME Plug-Mini-UHF Plug

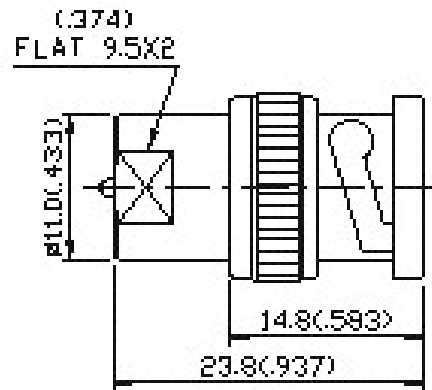


Part No.

FME-604-DGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Delrin

FME Plug-BNC Plug

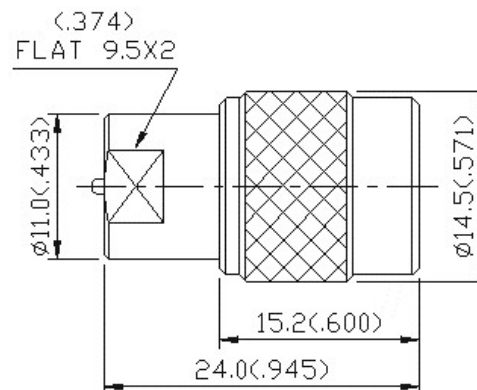


Part No.

FME-605-DGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Delrin

FME Plug-TNC Plug

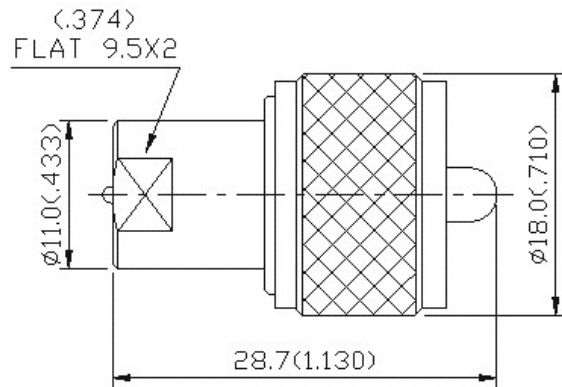


Part No.

FME-606-DGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Delrin

FME Plug-UHF Plug

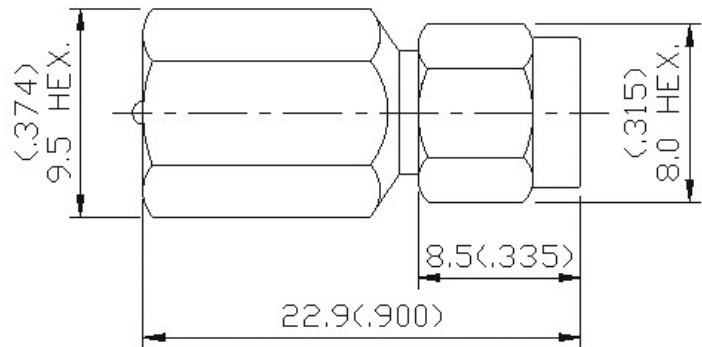


Part No.

FME-607-DGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Delrin

FME Plug-SMA Plug



Part No.

FME-608-TGN

Finish: Gold plated center contact & nickel plated body.
Insulation: Teflon