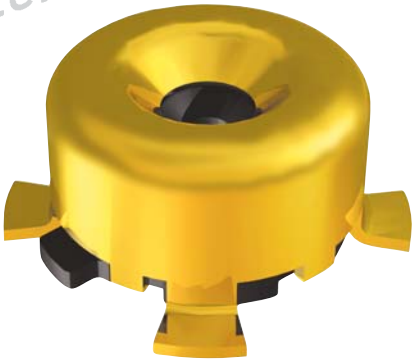
2795.99.0030.001

Ultra low height straight female antenna switch

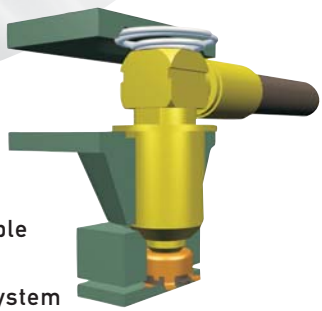
Patent pending



These applications are used for switching the RF signal from the mobile phone antenna to an external antenna. A functional and cost effective way to provide the safety of hands free operation combined with the improved RF performance in the vehicle installations. The switches can also be used for test and diagnostic purposes.

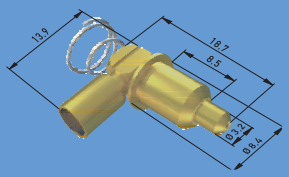
- Female interface
- More than 20,000 matings
- Robust design with ultra low height
- Compact design with excellent guiding
- Selfcleaning contact
- Supplied on tape and reel (4,000 pcs/reel)
- Tested against IEC standard

Designed for highest mechanical performance



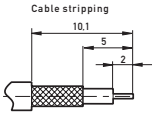
Spring loaded floating system

- Easy to assemble
- Easy to change
- Self-locating system
  - Axial misalignment ± 1 mm on diameter
  - Angular misalignment ± 5°
- Protected center pin (moveable ferrule)

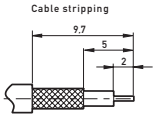


Floating mount cable plug

- Part No 2796.93.1420.031 (cable: low loss cable IMS Type: 1126780 – attenuation at 1.9 GHz: 0.815 dB/m)



- Part No 2932.93.1420.011 (cable: RG 178 B/U)
- Part No 2932.93.1420.021 (cable: RG 316 U, RG 174)



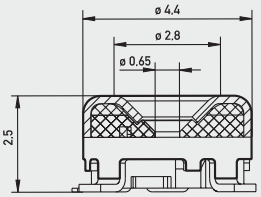
Testadapter (for automatic testing)

- Part No 2911.42.8914.101
  - Spring loaded floating system
  - 100 K or more matings
  - Protected center pin

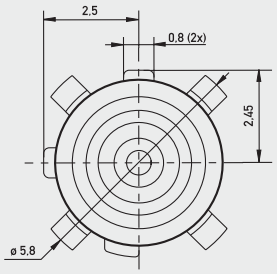
Testadapter (for manual testing)

- Part No 2974.93.1420.031
  - Sliding outer contact with retention force

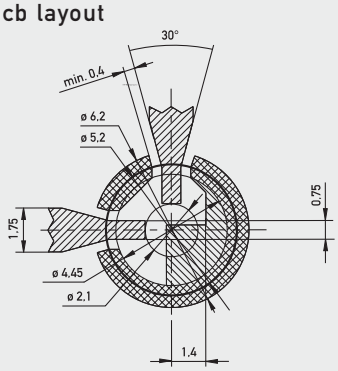
Side view



Top view



pcb layout



Electrical characteristics	Unswitched	Switched
Impedance	50 Ohm	50 Ohm
Operating frequency	DC...3 GHz	DC...3 GHz
Return-loss		
≤ 1.0 GHz	> 24 dB	> 26 dB
≤ 2.0 GHz	> 19 dB	> 17 dB
≤ 2.5 GHz	> 17 dB	> 14 dB
≤ 3.0 GHz	> 16 dB	> 12 dB
Isolation		
≤ 1.0 GHz		> 34 dB
≤ 2.0 GHz		> 28 dB
≤ 2.5 GHz		> 26 dB
≤ 3.0 GHz		> 23 dB
Insertion loss		
≤ 1.0 GHz	< 0.15 dB	< 0.13 dB
≤ 2.0 GHz	< 0.20 dB	< 0.25 dB
≤ 2.5 GHz	< 0.30 dB	< 0.35 dB
≤ 3.0 GHz	< 0.35 dB	< 0.55 dB
Insulation resistance	> 500 MOhm	
Contact resistance		
Center contact	< 80 mOhm	< 50 mOhm
Outer contact	< 50 mOhm	< 25 mOhm
Contact current max	< 0.4 A	
Operating voltage	100 V	100 V
Proof voltage	500 V	500 V

Mechanical characteristics	
Engagement force	2 N
Separating force	-2 N
Mating cycles	20,000
Contact pressure force (switch)	0.2 N (only switch, spring contact)
Misalignment	
Axial x, y	± 1 mm on diameter
Angular	± 5°

Materials	
Housing	Stainless steel
Insulator	PA
Moveable / Stationary contacts	Beryllium Copper/Brass

Plating	
Housing	Au
Moveable / Stationary contacts	Au

Environmental	
Low temperature storage	IEC 60068-2-1 / Ab
High temperature storage	IEC 60068-2-2 / Bb
Temperature change	IEC 60068-2-14 / Nb
Damp heat	IEC 60068-2-30 / Dp

(All electrical and mechanical characteristics are valid for the combination 2795.99.0030.001 and 2796.93.1420.031)

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for active people