

DIN 1.6/5.6 & 1.0/2.3



1.6/5.6	DC - 1 GHz
1.0/2.3	DC - 10 GHz

GENERAL

- Standard coaxial connectors
- Three interface systems : screw-on, slide-on and snap-on
- For standard or special cables :
series 1.0/2.3 for 50 Ω
series 1.0/2.3 and 1.6/5.6 for 75 Ω

APPLICABLE STANDARDS

- DIN 47297 1.0/2.3
- DIN 47295 1.6/5.6
- NF (draft) 1.0/2.3 and 1.6/5.6
- CECC (draft) 1.0/2.3 and 1.6/5.6

APPROVAL

- LNZ list
- FTZ list

APPLICATIONS

- Civil and military telecommunications equipment.

1.6/5.6 – DIN 47 295

CHARACTERISTICS

TEST	REQUIREMENT	TEST STANDARD	COMMENTS
ELECTRICAL CHARACTERISTICS			
Impedance	75 Ω		
Frequency range (see also reflection factor)	1 GHz level 2 connector 4 GHz level 1 connector		
Reflection factors		DIN 47 275, Edit. 05/73, § 8.1	
– Level 2 interface flexible cables (IEC 96-75-4-1)	$r \leq 0.01$ at 0.1 GHz 0.02 at 0.5 GHz 0.10 at 1.0 GHz		
– Level 1 interface flexible cables (IEC 96-75-4-1)	$r \leq 0.05$ at 1.0 GHz 0.07 at 2.0 GHz 0.15 at 4.0 GHz		
semi-rigid cables (.141 cable)	$r \leq 0.03$ at 1.0 GHz 0.06 at 2.0 GHz 0.08 at 4.0 GHz		
Resistance of center contact	≤ 4 m Ω	DIN 47 275, Edit. 05/73, §§ 8.3 and 8.4	
Resistance of outer contact	≤ 2 m Ω	DIN 47 275, Edit. 05/73, § 8.5	
Insulation resistance	≥ 500 M Ω	DIN 47 275, Edit. 05/73, § 8.7	
Test voltage at sea level (1)		DIN 47 275, Edit. 05/73, § 8.6	86 to 106 kPa
– flexible cables (IEC 96-75-4-1)	1,5 kV		
– semi-rigid cables (.141 cables)	1,0 kV		
Test voltage at 70,000 ft (20 km) (1)		DIN 47 275, Edit. 05/73, § 8.6	4,4 kPa
– flexible cables (IEC 96-75-4-1)	300 V		
– semi-rigid cables (.141 cables)	200 V		
RF leakage (screen efficiency)	$\leq 5 \cdot 10^{-4}$ Ω	DIN 47 275, Edit. 05/73, § 8.9	at 1 GHz
– connector only			Max. torque : 0.026 inch -pound(0.3 N.m)

(1) Indicated voltages are actual values for a 50 to 60 Hz a.c. current. The operating voltage will depend on the required safety margin.

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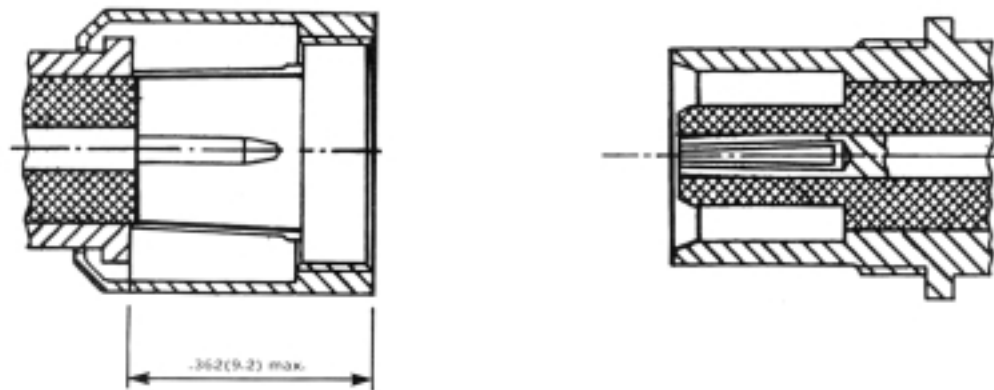
CHARACTERISTICS

TEST	CHARACTERISTICS	TEST STANDARD	COMMENTS
MECHANICAL CHARACTERISTICS			
Gage test characteristics		DIN 47 275 T.2, Edit. 10/82,	For gage, see § 4.2
- socket		§ 2.4.2	
- outer contact		§ 2.4.1	For gage, see § 4.1
Center contact	40 N	DIN 47 275 T.2, Edit. 10/82,	Duration : 1 min.
- axial force		§ 2.6	Max. axial displacement : 0.25 mm
Mating/unmating		DIN 47 275 T.2, Edit. 10/82,	
- unmating torque	0.3 Nm max.	§ 2.3	Working torque
- mating force (axial)	10 N max.		
- unmating force (axial)	2.2 N min.		
Bending moment	1.0 Nm	DIN 47 275 T.2, Edit. 10/82, § 2.8	
Cabling		DIN 47 275 T.2, Edit. 10/82,	Cable length 200 mm
- cable resistance		§ 2.11	Connectors at both ends, force applied between the two
flexible cables	50 N		
(IEC 96-75-4-1)			
semi-rigid cables	200 N		
(cable .141)			
- cable torsion resistance			
flexible cables	0.3 Nm		
(IEC 96-75-4-1)			
semi-rigid cables	1.0 Nm		
(cable .141)			
Life	1000 cycles	DIN 47 275 T.2	Mating/unmating Test level H
ENVIRONMENT			
Test class	55 / 155 / 21 40 / 085 / 21	DIN 47 275 T.1, Edit. 09/84, § 2.5	Test level H Test level U
Vibrations			
- acceleration	98 m/s ²	DIN 40 046 T.8	10 g (acceleration)
- frequency range	10 to 2000 Hz		
Hermeticity on flange and on connector		DIN 47 275 T.4	
- leakage rate	1 cm ³ /h		
- pressure diff.	100, 110 kPa	DIN 40 046 Part. 11	
REFERENCE STANDARDS			
DIN 40 046	Part 8	Climatic and mechanical tests for electrical components and communication devices Test F : vibrations	
DIN 40 046	Part 11	Climatic and mechanical tests for electrical components and communication devices Test K : corrosive environment	
DIN 47 275	Part 1	HF connections, characteristics, tests HF connections, general characteristics, technical requirements	
DIN 47 275	Part 2	HF connections, mechanical tests	
DIN 47 275	Part 4	HF connections, climatic tests	
DIN 47 299	Part 1	HF coaxial connectors, definition of connectors and connection systems.	

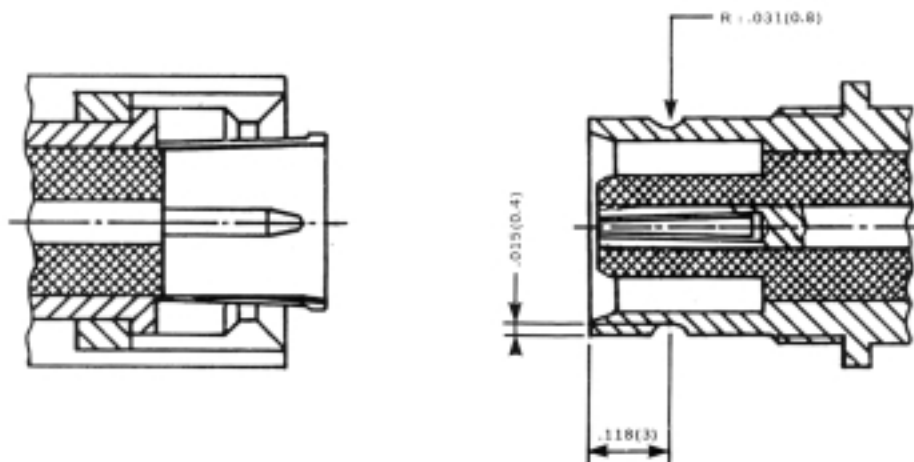
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COUPLING PROCEDURE

SCREW - ON



SNAP - ON



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COUPLING PROCEDURE

SLIDE - ON

