

## COAXIAL ANTENNA RFX 1 5/8"

NK CODES	RFX 1 5/8"-50	NKRFX15800
	RFX 1 5/8"-50 BHF	NKRFX15802
	RFX 1 5/8"-50 MBHF	NKRFX15807

### CONSTRUCTION



Inner conductor	Corrugated copper tube	Ø 17.6 mm (0.69 in)
Dielectric	Cellular polyethylene	Ø 42.0 mm (1.65 in)
Outer conductor	Corrugated double side slotted copper tube	Ø 46.3 mm (1.82 in)
Jacket	See Jacketing Options table below	Ø 49.5 mm (1.95 in)
Marking	Draka, cable type, manufacture week, year, batch number and meter mark	

### ELECTRICAL CHARACTERISTICS at +20°C (+68°F)

Characteristic impedance	50 ± 2 Ω
Typical return loss (VSWR) on effective frequency range	18 dB (1.29)
Velocity factor	0.89
Capacitance	74 pF/m (22.6 pF/ft)
Maximum frequency	2800 MHz
DC-resistance	
- Inner conductor	1.16 Ω/km (0.35 Ω/1000 ft)
- Outer conductor	0.47 Ω/km (0.14 Ω/1000 ft)

### MECHANICAL CHARACTERISTICS

Weight (polyethylene jacket)	1.12 kg/m (0.75 lb/ft)
Weight (GHF/BHF fire retardant jacket)	1.28 kg/m (0.86 lb/ft)
Maximum pulling force	3900 N (860 lb)
Minimum single bending radius	400 mm (15.7 in)
Operating temperature range	-55...+85°C (-67...+185 °F)

### ATTENUATION AND COUPLING LOSS ACC. TO IEC 61196-4

Frequency MHz	Attenuation dB/100m (dB/100ft) ± 5%	Coupling loss 50%, dB ± 10 dB	Coupling loss 95%, dB ± 10 dB	Coupling loss * 50%, dB ± 10 dB	Coupling loss * 95%, dB ± 10 dB
75	0.6 (0.18)	54	60	-	-
150	0.9 (0.27)	61	66	53	59
450	1.7 (0.52)	65	69	50	55
900	2.7 (0.82)	66	72	53	57
1800	4.6 (1.40)	69	74	59	64
2200	5.6 (1.71)	68	74	59	65
2400	6.1 (1.86)	68	73	59	64
2600	6.6 (2.01)	65	69	57	62

Attenuation and coupling loss values are typical acc. to IEC 61196-4 free space method.  
\* Coupling loss values are real measurement results from simulated sub-way tunnel.

**JACKETING OPTIONS**

TYPE	JACKET	IEC 60754 - 1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-3- 24 fire retardant	UV retardancy	Min. installation temperature
RFX 1 5/8"-50	Black, halogen free polyethylene	yes	no	no	yes	-20°C (-4°F)
RFX 1 5/8"-50 BHF	Black, HF fire retardant thermoplastic	yes	yes	yes	yes	-5°C (+23°F)
RFX 1 5/8"-50 MBHF	Black, HFFR with mica tape fire barrier	yes	yes	yes	yes	-5°C (+23°F)

[PRODUCT CODE TABLE]

© PRYSMIAN GROUP 2014, All Rights Reserved

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result.

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.

**RF2X 1 5/8" COAXIAL ANTENNA**
**NK CODES**
**RF2X 1 5/8"-50**  
**RF2X 1 5/8"-50 BHF**  
**RF2X 1 5/8"-50 MBHF**
**NKRF2X15800**  
**NKRF2X15802**  
**NKRF2X15807**
**CONSTRUCTION**


Inner conductor	Corrugated copper tube	Ø 17.6 mm	(0.69 in)
Dielectric	Cellular polyethylene	Ø 42.0 mm	(1.65 in)
Outer conductor	Corrugated double side slotted copper tube	Ø 46.3 mm	(1.82 in)
Jacket	See Jacketing Options table below	Ø 49.5 mm	(1.95 in)
Marking	Draka, cable type, manufacture week, year, batch number and meter mark		

**ELECTRICAL CHARACTERISTICS at +20°C (+68°F)**

Characteristic impedance	50 ± 2 Ω	
Typical return loss (VSWR) on effective frequency range	18 dB	(1.29)
Velocity factor	0.89	
Capacitance	74 pF/m	(22.6 pF/ft)
Maximum frequency	2800 MHz	
DC-resistance		
- Inner conductor	1.16 Ω/km	(0.35 Ω/1000 ft)
- Outer conductor	0.47 Ω/km	(0.14 Ω/1000 ft)

**MECHANICAL CHARACTERISTICS**

Weight (polyethylene jacket)	1.12 kg/m	(0.75 lb/ft)
Weight (GHF/BHF fire retardant jacket)	1.28 kg/m	(0.86 lb/ft)
Maximum pulling force	3900 N	(860 lb)
Minimum single bending radius	400 mm	(15.7 in)
Operating temperature range	-55...+85°C	(-67...+185°F)

**ATTENUATION AND COUPLING LOSS ACC. TO IEC 61196-4**

Frequency MHz	Attenuation dB/100m (dB/100ft) ± 5%	Coupling loss 50%, dB ± 10 dB	Coupling loss 95%, dB ± 10 dB	Coupling loss * 50%, dB ± 10 dB	Coupling loss * 95%, dB ± 10 dB
75	0.7 (0.21)	50	56	-	-
150	1.0 (0.31)	56	62	42	48
450	1.9 (0.60)	61	66	47	53
900	3.0 (0.91)	66	72	52	58
1800	5.1 (1.56)	66	72	57	62
2200	6.1 (1.86)	65	71	55	60
2400	6.6 (2.01)	66	72	58	63
2600	7.0 (2.13)	65	71	56	62

Attenuation and coupling loss values are typical and measured acc. to IEC 61196-4 free space method.  
 \* Coupling loss values are real measurement results from simulated sub-way tunnel.

**JACKETING OPTIONS**

TYPE	JACKET	IEC 60754 -1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-3-24 fire retardant	UV retardancy	Min. installation temperature
RF2X 1 5/8"-50	Black, halogen free polyethylene	yes	no	no	yes	-20°C (-4°F)
RF2X 1 5/8"-50 BHF	Black, HF fire retardant thermoplastic	yes	yes	yes	yes	-5°C (+23°F)
RF2X 1 5/8"-50 MBHF	Black, HFFR with mica tape fire barrier	yes	yes	yes	yes	-5°C (+23°F)