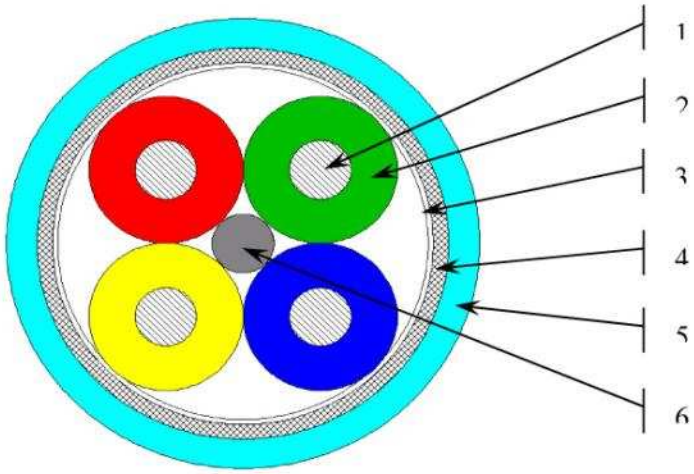
Prysmian Group	STAR QUAD INFLIGHT ABS 1503 KD24	Data Sheet F 4704-5	PRYSMIAN Draka

1-CONSTRUCTION



Item	Designation	Component details	Characteristics
1	Conductor	Silver Coated Copper AWG 24 (19 strands)	Nominal ∅ 0.62 mm *(0.0245 inch)*
2	Insulation	Solid extruded Fluoropolymer	1.35 ≤ Ø ≤ 1.52 *(0.053≤ Ø ≤ 0.060 inch)*
3	Protection tape	Synthetic	
4	Braid	Round Silver Coated Copper braid	Coverage 80%
5	Jacket	Extruded Fluoropolymer	Maximal ∅ : 5 mm *(MaxØ : 0.197 inch)*
6	Filler	Fluoropolymer	

COLOUR CODE AND MARKING

- Insulation : - Pair n°1 : Core 1-R : Red (Tx +)
  Core 1-B : Blue (Tx -)
- Pair n°2 : Core 2-Y : Yellow (Rx +)
  Core 2-G : Green (Rx -)

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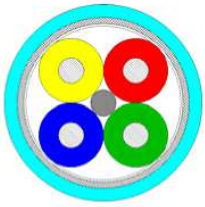
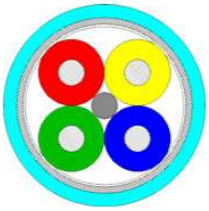
	Date	Author	Modifications
	20/10/11	PIG	New lay out
D	03/03/11	PIG	Marking added, capcitance added, attenuation modified, were Kl values; Zt100MHz was 0.02
C	05/10/10	PIG	New lay out
B	14/04/05	HDF	Add ref
A	31/01/04	HDF	First Issue
Approval : EBA	**Date**	**Author**	**Modifications**

- Jacket : Colour : light blue UV laser markable
- Marking : " .. KD 24 FR A 24 xx yy KD 24 FR A 24 xx..."

xx = Year code
yy = extremity code
(A-B ou B-A)



View extremity "A"



View extremity "B"

2 – PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS:

- Operating temperatures: - 65°C to + 125°C
- Storage temperatures: -65°C to +200°C
- Mass: 41 kg/km max *(2.75 Lb/100 ft max)*
- Flame propagation: Following FAR 25.869 and EN3475-407
- Smoke density & toxicity Following ABD 031C (test time 4 mn)
- Fluid resistance: Following EN 3475 § 411
- Laser markability: ≥ 50 % (following EN 3838, EN 3475-705 and EN 3475-706)

3– ELECTRICAL CHARACTERISTICS AT 20°C:

- Maximal Voltage: 600 V AC
- Dielectric withstand: Between conductor and between conductor/shield :
  - DC = 1 kV 1mn
  - AC = 0,7 kV 1mn
- Maximal loop resistance: 192 Ω/km *(58,5 Ω/1000 ft)*
- Insulation Resistance: ≥ 1500 MΩ.km *(about 5000 MΩ. 1000 ft)*

Transmission parameters:

- Characteristic Impedance: Zc RMS : 100 ± 15 Ω [1-100 MHz] at 20°C
- Velocity of propagation: > 70 at 31.25 MHz
- Maximum capacitance unbalance pair to ground: 330 pF max / 100 m *(1 pF max / ft)*
- Mutual capacitance: 60 pF/m max *(18.3 pF max / ft)*

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Frequency In MHz	Attenuation at 20°C Maximal value in dB / 100m *(dB/100 ft)*	Unbalance attenuation LCL Minimal value in dB	Near End crosstalk (NEXT) Minimal value in dB
1	2.1 *(0.65)*	30-10log (F/100)	68
4	4.3 *(1.31)*		59
10	6.6 *(2.01)*		53
16	8.7 *(2.65)*	Calculations that result in LCL values greater than 40 dB can be revert to a requirement of 40 dB mini	50
20	9.7 *(2.96)*		48
31.25	12.5 *(3.8)*		46
62.5	18.0 *(5.5)*		41
100	23 *(7.01)*		38

- LCTL (Min.) : 0,1 < F < 1 Mhz = 40 dB
  1 < F < 10 Mhz = 40 – 10 log(F)
  10 < F < 100 Mhz = 30 dB

- SRL (Min.) : 1 < F < 10 Mhz = 20 + 5 log(F)
  10 < F < 20 Mhz = 25 dB
  20 < F < 100 Mhz = 25 – 7 log(F/20)

- Transfer Impedance (Max.) :
  0.01Mhz to 5 Mhz = 2,0 10^{-2} Ω/m *(0.61 Ω/100ft)*
  at 10 Mhz = 3,0 10^{-2} Ω/m *(0.92 Ω/100ft)*
  at 20 Mhz = 4,5 10^{-2} Ω/m *(1.37 Ω/100ft)*
  at 50 Mhz = 10 10^{-2} Ω/m *(3.05 Ω/100ft)*
  at 100 Mhz = 40 10^{-2} Ω/m *(12.2 Ω/100ft)*

4 – MECHANICAL CHARACTERISTICS:

Minimum bend radius:	Dynamic: 47 mm Static (installed): 24 mm
Jacket abrasion resistance:	Following EN 3475 § 503
Tensile strength of the cable :	≥ 500N

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