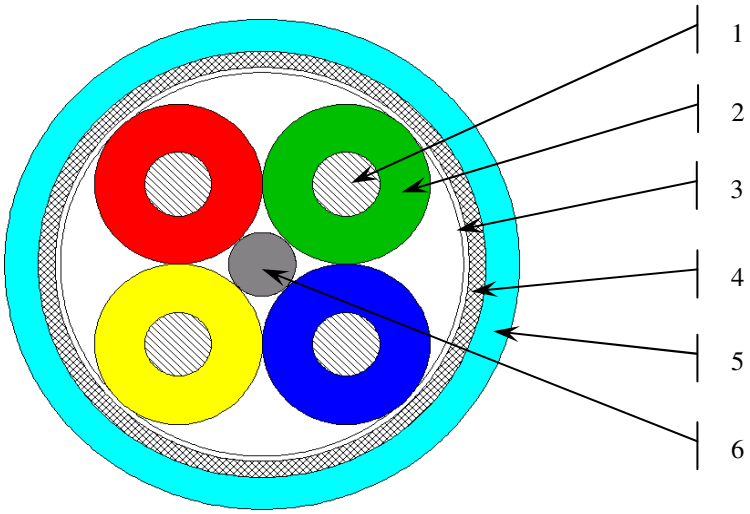
Prysmian Group	LIGHT WEIGHT STAR QUAD INFLIGHT EN3375-011 KL24	**Data Sheet** **F 4704-19** **KL24 Mk2 version**	PRYSMIAN Draka

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	Foam extruded Fluoropolymer	Nominal ∅ 1.35 mm *(0.053 inch)*
3	Inner shield	Aluminium/Mylar	100% coverage
4	Outer shield	Round Silver Coated Copper braid	
5	Jacket	Extruded FEP	∅ 4.30 ± 0.20 mm *(0.169 ± 0.008 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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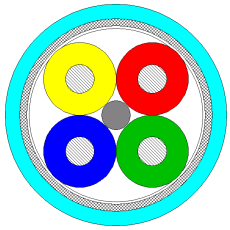
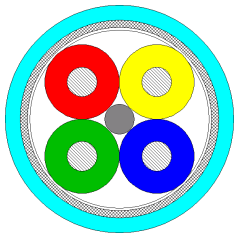
B	02/01/17	PI	4704-19 refers to Mk2 version of the KL24 as internal designation
A	26/10/2015	EBA	First Issue
Approval : PIG	**Date**	**Author**	**Modifications**

- Jacket : Colour : light blue UV laser markable
- Marking : « ……. EN KL 24 FRA ■ xx yy EN KL 24 FRA ■ xx …….. »

xx = Year code
yy = extremity code
(A-B or 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 + 150°C
- Mass: 33 kg/km max *(22.18 Lb/1000 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)*
- Characteristic Impedance: Zc RMS : 100 ± 15 Ω [1-100 MHz] at 20°C
- Velocity of propagation: 79% nominal
- Maximum capacity unbalance pair to ground: 330 pF max / 100 m *(1 pF max / ft)*

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Transmission parameters:

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	4.4 *(1.35)*		59
10	6.9 *(2.1)*		53
16	8.8 *(2.7)*	Calculations that result in LCL values greater than 40 dB can be revert to a requirement of 40 dB mini	50
20	9.9 *(3.0)*		48
31.25	12.5 *(3.8)*		46
62.5	18.0 *(5.5)*		41
100	23.3 *(7.1)*		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: 45 mm
Static (installed): 22.5 mm

Jacket abrasion resistance: Following EN 3475 § 503

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