EA510DB-Ed1

QUADED RAILWAY SIGNALING CABLES WITH ARMOURED LSZH SHEATH ADIF SPECIFICATION


Telecommunication Cable


Fire Retardant


Reduced Smoke emission

Zero halogen


Impact resistant


UV resistant


Rodent resistant

ROHS Compliant

STANDARDS

Construction: ADIF ET 03.365.051.6 2nd edition

Other complementary standards: EN 50266-2-4 CAT. C, EN 50267-2-2, EN 50268-2 and NF-C 20454

DESCRIPTION AND APPLICATION

Cables from 1 to 25 star quads, conductors of 0.9, 1.3 y 1.4 mm nominal diameters, PE insulated. Quads are stranded in layers to form the core that is protected with an armoured LSZH fire resistant sheath. They are used as telecommunication cables or in railways networks, especially in railways infrastructures. For installation in ducts or directly buried. Appropriate for external installation and in tunnels where a special protection against rodents and fire resistant characteristics are needed.

CONSTRUCTION

- ***Conductors***: Annealed copper, 0.9, 1.3 and 1.4 mm of nominal diameter.
- ***Insulation***: Solid high density polyethylene.
- ***Cabling elements***: Star quads.
- ***Core formation***. Stranded in layers. Colour code as per ADIF ET-03.365.051.6
- ***Core wrapping***. Dielectric tape longitudinally applied with overlap.
- ***Cable screen***. Polyethylene coated aluminium tape, longitudinally applied with overlap and bonded to the inner sheath.
- ***Inner sheath***: Low Smoke Zero Halogen material.
- ***Armour***: Corrugated Polyethylene coated steel tape, longitudinally applied with overlap.
- ***Outer sheath***: UV resistant LSZH material colour green RAL 6018.
- ***Sheath marking***: The outer sheath shall be marked in white ink, at regular intervals, with the following information:
  - *Name of manufacturer/ Year/ Length marks*
  - *Other type of marks according to the costumer*

Cables de Comunicaciones Zaragoza, SL.
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Certified Company **ISO 9001** - **ISO 14001**

QUADED RAILWAY SIGNALING CABLES WITH ARMOURED LSZH SHEATH ADIF SPECIFICATION

ELECTRICAL CHARACTERISTICS (20ºC)	0,9 mm	1,3 mm	1,4 mm
Conductor resistance (Ω/km)	29,0	13,9	11,90
Loop Resistance unbalance (%) 100x(R_{max}-R_{min})/ (R_{max}+R_{min})	Average: 1 % / Maximum 2 %		
Minimum insulation resistance (MΩxkm, 20ºC, 500 V)	35000		
Mutual capacitance (nF/km, 1000 Hz)	Average: 38±3 / Maximum 45	Average: 41±4 / Maximum 48	Average: 41±4 / Maximum 48
Capacitance unbalance (pF/460m, 1000 Hz)			
Pair-pair	Average < 35 / Maximum < 250		
Pair-earth	Average < 320 / Maximum < 1200		
***Note**: Average limit apply only to cables from 7 quads*			
Dielectric strength (Vcc, 3 s)			
conductor – conductor		3000	
conductor - shield		5000	
Nominal attenuation (dB/km)			
1 KHz	0.70	0.50	0.46
10 KHz	1.60	0.90	0.85
30 KHz	2.10	1.40	1.30

MECHANICAL CHARACTERISTICS

Temperature range: from -25º C to +75º C

Bending radius: 15 x R_{cable}

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DIMENSIONS AND WEIGHTS

Diameter : 0.90 mm

Code	No. quad.	Cable Diam. (mm)	Aprox weight. (kg/km)	Length (m)	Drum type
EA510DB90000100N	1	16.0	340	920	08
EA510DB90000300N	3	21.0	540	920	A2
EA510DB90000500N	5	22.5	650	460	A0
EA510DB90000700N	7	24.0	750	460	A2
EA510DB90001000N	10	26.5	910	460	A2
EA510DB90001200N	12	28.5	1050	460	A4
EA510DB90001400N	14	30.0	1175	460	A4
EA510DB90001900N	19	33.5	1450	460	A4
EA510DB90002500N	25	37.0	1750	460	A6

Diameter : 1.30 mm

Code	no. quad.	Cable Diam. (mm)	Aprox weight. (kg/km)	Length (m)	Drum type
EA510DBA3000100N	1	17.5	410	920	08
EA510DBA3000300N	3	22.0	660	920	A2
EA510DBA3000500N	5	25.5	890	460	A2
EA510DBA3000700N	7	27.5	1075	460	A2
EA510DBA3001000N	10	31.5	1375	460	A4
EA510DBA3001200N	12	34.0	1575	460	A4
EA510DBA3001400N	14	36.0	1800	460	A6
EA510DBA3001900N	19	40.0	2200	460	A6
EA510DBA3002500N	25	44.0	2700	460	A6

Diameter : 1.40 mm

Code	no. quad.	Cable Diam. (mm)	Aprox weight. (kg/km)	Length (m)	Drum type
EA510DBA4000100N	1	17.5	420	920	08
EA510DBA4000300N	3	25.0	760	920	A2
EA510DBA4000500N	5	26.5	960	460	A2
EA510DBA4000700N	7	30.0	1200	460	A4
EA510DBA4001000N	10	33.5	1550	460	A4
EA510DBA4001200N	12	36.0	1800	460	A6
EA510DBA4001400N	14	38.0	2000	460	A6
EA510DBA4001900N	19	42.0	2500	460	A6
EA510DBA4002500N	25	47.0	3100	460	A6

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