

Cat. 7 4x2x23/1 AWG S/FTP Low Temperature PVC

Part Number: 9928038101

Applications: High bandwidth digital applications with low BER, High data

rates, Low temperature, outdoor fixed installations, Indoor/Outdoor use, fixed installations, Low temperature Indoor/Outdoor applications, Outdoor installations

General Construction: 4 individually shielded twisted pairs, cabled, overall braid

shielded and jacketed. The cable is suitable for applications

in wide operational temperature range.

Detailed Schematic:

Outer Jacket Material: UV resistant FR-PVC

Outer Diameter: 9.0 mm nom. Weight: 80 kg/km



Design & Materials

Conductor Material:	Annealed Bare Copper
Conductor Size:	23 AWG
Conductor Construction:	Solid
Insulation O.D.:	1.38 mm nom.
Color Code:	Per TIA/EIA 568-B
Ind. Shield Material:	Aluminum/Polyester Foil
Ind. Shield Design:	100% Coverage
Conductor unit lay-up:	Pairs
Drain-wire 2 Construction:	Solid
Drain-wire 3 Construction:	Solid
Overall Shield Material:	Tinned-copper braid
Overall Braid Shield:	Yes
Braid Coverage:	40 % nom.
Overall Drain-wire Material:	Annealed Tinned Copper
Overall Drain-wire size:	0.41 mm
Overall Drain-wire Construction:	Solid
Inner Jacket Color:	Per request
2nd Inner Jacket Color:	Per request
Total number of conductors:	8
Outer Jacket Color:	Black
Marking:	Per request, Teldor Standard

Standards

Applicable Standards:	IEC 61156, RoHS 3 2015/863/EU
Flammability Rating:	IEC 60332-1, IEC 60332-3 , UL 1581 VW-1, UL CMX, UL CMG

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Electrical Properties:

Cat. 7 Horizontal Cables*

Freq. MHz	Attenuation dB/100m 20°C		PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ANEXT dB		PS ELFEXT dB		ELFEXT dB	
	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat.	Typical Value	Cat.	Typical Value	Cat.	Typical Value	Cat. 7
1	2.0	2.0	105.0	75.0	108.0	78.0	22.0	20.0	68.0	N/A	95.0	75.0	98.0	78.0
4	3.6	3.7	98.0	75.0	101.0	78.0	25.0	23.0	68.0	N/A	90.0	75.0	93.0	78.0
10	5.6	5.8	95.0	75.0	98.0	78.0	28.0	25.0	68.0	N/A	86.0	71.0	89.0	74.0
20	7.9	8.3	90.0	75.0	93.0	78.0	28.0	25.0	68.0	N/A	80.0	65.0	83.0	68.0
30	9.7	10.2	85.0	75.0	88.0	78.0	27.0	23.8	68.0	N/A	76.0	61.5	79.0	64.5
100	18.0	19.0	80.0	69.4	83.0	72.4	24.0	21.1	68.0	N/A	66.0	51.0	69.0	54.0
150	22.4	23.6	78.0	66.7	81.0	69.7	22.0	18.8	65.0	N/A	63.0	47.5	66.0	50.5
200	26.0	27.5	78.0	65.0	81.0	68.0	21.0	18.0	65.0	N/A	60.0	45.0	63.0	48.0
250	29.4	31.0	75.0	63.4	78.0	66.4	20.0	17.3	62.0	N/A	58.0	43.0	61.0	46.0
300	32.5	34.2	75.0	62.2	78.0	65.2	19.0	17.3	62.0	N/A	52.0	41.5	55.0	44.5
400	38.0	40.0	70.0	60.4	73.0	63.4	19.0	17.3	62.0	N/A	49.0	38.9	52.0	41.9
500	43.0	45.2	70.0	58.9	73.0	61.9	19.0	17.3	62.0	N/A	47.0	37.0	50.0	40.0
600	47.6	50.1	70.0	57.7	73.0	60.7	19.0	17.3	62.0	N/A	45.0	35.4	48.0	38.4

^{*}Supplied cables meet the minimum Cat. 7 transmission requirements as per IEC 61156-5 Ed. 2

Performance

Frequency Range:	1 - 600 MHz			
Impedance:	100 Ω			
Coupling Attenuation:	Type I			
Max. DC Resistance :	73 Ω/km@20°C			
Max. Resistance Unbalance:	2 %			
Capacitance:	43 pF/m			
Capacitance Unbalance:	1.2 pF/m max.			
Velocity of Propagation:	78 % nom.			
Propagation Delay Skew:	30 ns/100m max.			
Dielectric Strength:	700 V/minute			
Dielectric Strength to Shield:	700 V/minute			
Min. Insulation Resistance :	5 GΩ•km			
Min. Bend Radius:	100 mm			
Max. Operating Temperature:	+75 °C			
Min. Operating Temperature:	-55 °C			
UV Resistance:	Yes			

Prepared By	Revised By	Version Num	Modified on
Asher Bohbut	Ofer Solter	1.5	24-04-2014

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