



Technical Data

Document Reference

18/02254

Modbus/CAN Bus RS-485 120 Ω



RAMCRO - DATA Cable

For standard applications, low smoke, Halogen Free

Single-Pair, PE-Insulation, Double Collective Screen, LSZH UV/Oil Res.-Sheath

SDS0107HENDX-T-CB

PE/Al-TCWB/LSZH UV Res.

Application

For transmission of CAN (Control Area Network) bus signals or computer signals with RS 485 or RS 422 interface. Not suitable for direct buried application

Construction

		Unit	Nominal Value
Formation	1 Pair		
Section	22AWG		
Conductor	Tinned copper wire, 7 strand	mm	0,7
Insulation	Polyetilene - PE	mm	2,2
Colour Code	White, Blue		
Individual Screen	N.A.		
Wrapping	at least 1 layer of plastic tape 0,023 mm + 2 Interstitial Fillers		
Collective Screen	Aluminium / PETP + Tinned Copper Braid (85%) + tcdw 7x0.25 mm		
Inner Sheath	N.A.		
Armour	N.A.		
Outer Sheath	Thermoplastic Low Smoke, Halogen Free - LSZH UV Res. - Black	mm	6,7
Cable Printing	RAMCRO - MODBUS / CANBUS RS-485 120 Ω - FB-2YS(St+Ce)H - 1x2x22AWG - 300V - 75° C IEC 60332-3 - IEC 60332-1 - UL1685 + BATCH + METER MARKING		

Technical Data & Standard References

Fire Propagation:			
- Test on single cable	IEC 60332-1		
- Test on bunched cables	IEC 60332-3		
- Vertical Tray Flame Test	UL1685		
Limiting Oxygen Index (LOI)	(min 37%)		
Smoke Density	IEC 61034		
Amount of halogen acid gas	IEC 60754-1 (max 0,5%)		
Acidity (ph value) and conductivity	IEC 60754-2		
Sunlight resistance	UL 1581 section 1200		
Notes			
		Construction Reference Standard:	CAN Bus 120 Ω
		Type of Cable:	Data Cable
		Low Voltage Directive	2014/35/EU
		Other References:	
		- BS EN 60228	
		- IEC 61158-2, Type A	
		- EN 50288-7	
		- BS 6234	
		- BS50363	
		- IEC 60332-1	
		- IEC 60332-3-24	
		- UL1685	

Electrical & Mechanical Data

Conductor Cross-section	Nom.	22AWG	Temperature Range:	
DC Resistance per core at 20° C	max Ω/km	54,1	During Operation	° C -30° C up to +90° C
Insulation Resistance at 20° C	min MΩ*km	5000	During Installation	° C -5° C up to +50° C
Mutual Capacitance	max nF/km	150		
Inductance	max mH/km	1	Min. Bending Radius	mm 7,5 x cable diameter
Test Voltage - Core/Core	V	2000	Max Pulling Tension	N/mm2 32
Test Voltage - Core/Screen	V	2000	Weight Approx	kg/km 53
Impedance at f = 1 MHz	Ω	120 +/- 20		
Velocity of propagation % speed of Light	5ns/m	68%		
Attenuation at f = 1 MHz	Db/Km	21.3		
Attenuation at f = 10 MHz	Db/Km	72.2		
Attenuation at f = 20 MHz	Db/Km	102.0		
Operating Voltage	V	300		



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