

RAMCRO - Power-Limited Fire-Alarm Cable

For standard applications, low smoke, Halogen Free

Multi-Core, PE-Insulation, Collective Screen, LSZH-Sheath



FPLR

SAR0203HFEDH-UL-FA

PE/CAM/LSZH

Application

These cables are designed to connect electronic instrumentation, analog and digital signal circuits. This cable does not spread flame to the top of the tray in the Vertical-Tray Flame Test in UL 1666.

Construction	2C18AWG		
Formation	2 Cores	Unit	Nominal Value
Section	18AWG		
Conductor	Plain annealed copper wire, solid	mm	1,0
Insulation	Polyethylene - PE	mm	1,4
Colour Code	Black, Red		
Individual Screen	N.A.		
Wrapping	at least 1 layer of plastic tape 0,023 mm		
Collective Screen	0,026 mm Aluminium / PETP tape over tinned copper drain wire		
Inner Sheath	N.A.		
Armour	N.A.		
Outer Sheath	Thermoplastic Low Smoke, Halogen Free - LSZH - Red	mm	4,1
Cable Printing	RAMCRO S.p.A. - Type FPLR - 2 C 18AWG - Shielded - LSZH FR - 75°C - IEC 60332-1 - UL 1581 - SAR0203HFEDH-UL-FA + BATCH + METER MARKING		

Technical Data & Standard References

Fire Propagation:			
- Test on single cable	IEC 60332-1	Construction Reference Standard:	UL-1424
- Test on bunched cables	IEC 60332-3	Type of Cable:	Fire Alarm Cable
		Low Voltage Directive	2014/35/UE
- Vertical Tray Flame Test	UL1666	Other References:	
Limiting Oxygen Index (LOI)	(min 37%)	- NEC code, sec. FPLR,	
Smoke Density	IEC 61034	- UL 1666	
Amount of halogen acid gas	IEC 60754-1 (max 0,5%)	- ASTM D 1239	
Acidity (ph value) and conductivity	IEC 60754-2	- NF C 32-020	
		- IIRAM IAP	
Notes			

Electrical & Mechanical Data

Conductor Cross-section	Nom.	18AWG	Temperature Range:	
DC Resistance per core at 20° C	max	Ω/km	During Operation	° C -30° C up to +90°C
Insulation Resistance at 20° C	min	MΩ*km	During Installation	° C -5° C up to +50°C
Mutual Capacitance	max	nF/km		
Inductance	max	mH/km	Min. Bending Radius	mm 10 x cable diameter
Test Voltage - Core/Core	V	3000	Max Pulling Tension	N/mm2 79
Test Voltage - Core/Screen	V	2000	Weight Approx	kg/km 34
L/R Ratio	max	μH/Ω		
Operating Voltage	V	300		

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