Technical Data

Document Reference
18/02430

UL-1424

RAMCRO - Power-Limited Fire-Alarm Cable
For standard applications, low smoke, Halogen Free

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

FPLR

SAR0202HFEDH-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	**2C16AWG**		
		Unit	Nominal Value
Formation	2 Cores		
Section	16AWG		
Conductor	Plain annealed copper wire, solid	mm	1,1
Insulation	Polyetilene - PE	mm	1,5
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	4,4
Cable Printing	RAMCRO S.p.A. - Type FPLR - 2 C 16AWG - Shielded - LS0H FR - 75°C - IEC 60332-1 - UL 1581 - SAR0202HFEDH-UL-FA + 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	UL1666
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
Notes	

Construction Reference Standard:	UL-1424
Type of Cable:	Fire Alarm Cable
Low Voltage Directive	2014/35/UE
Other References:	
- NEC code, sec. FPLR,	
- UL 1666	
- ASTM D 1239	
- NF C 32-020	
- IRAM IAP	

Electrical & Mechanical Data

Conductor Cross-section	Nom.	16AWG	Temperature Range:		
DC Resistance per core at 20° C	max Ω/km	13,5	During Operation	° C	-30° C up to +90°C
Insulation Resistance at 20° C	min MΩ*km	1000	During Installation	° C	-5° C up to +50°C
Mutual Capacitance	max nF/km	150			
Inductance	max mH/km	1	Min. Bending Radius	mm	10 x cable diameter
Test Voltage - Core/Core	V	3000	Max Pulling Tension	N/mm2	104
Test Voltage - Core/Screen	V	2000	Weight Approx	kg/km	41
L/R Ratio	max µH/Ω	40			
Operating Voltage	V	300			

RoHS 2002/95/EC