



Technical Data

Document Reference

20/00049



UL 13

UL Listed

PLTC

RAMCROil - INSTRUMENTATION Cable

For standard applications, low smoke, Halogen Free

Multi-Pair, XLPE-Insulation, Individual & Collective Screen, LSZH-Sheath

Code: MAC0205HEEXN-UL13CC

XLPE/IAM/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 1685.

Construction 2x2x18AWG

		Unit	Nominal Value
Formation	2 Pairs		
Section	18AWG		
Conductor	Plain annealed copper wire, 7 strand	mm	1,2
Insulation	Cross Linked Polyethylene - XLPE	mm	2,0
Colour Code	White, Black + Numbered Tapes		
Individual Screen	0,026 mm Aluminium / PETP tape over tinned copper drain wire		
Wrapping	at least 1 layer of plastic tape 0,023 mm		
Collective Screen	0,026 mm Aluminium / PETP tape over tinned copper drain wire / + Comm Core AWG22 SOLID ORANGE		
Inner Sheath	N.A.		
Armour	N.A.		
Outer Sheath	Thermoplastic Low Smoke, Halogen Free - LSZH - Black	mm	9,0
Cable Printing	RAMCRO S.p.A. - (UL) Listed E345186 Type PLTC - 2 pr 18 - Shielded - 75°C MAC0205HEEXN-UL13CC + BATCH + METER MARKING		

Technical Data & Standard References

Fire Propagation:		Construction Reference Standard:	UL 13
- Test on single cable	IEC 60332-1	Type of Cable:	PLTC Cable
- Test on bunched cables	IEC 60332-3	Low Voltage Directive	2014/35/UE
- Vertical Tray Flame Test	UL1685	Other References:	
Limiting Oxygen Index (LOI)	(min 37%)	- NEC code, sec. 725 PLTC,	
Smoke Density	IEC 61034	- NEC code, sec. 727 ITC,	
Amount of halogen acid gas	IEC 60754-1 (max 0,5%)	- UL 1685	
Acidity (ph value) and conductivity	IEC 60754-2	- ASTM D 1239	
Notes		- NF C 32-020	
		- IRAM IAP	

Electrical & Mechanical Data

Conductor Cross-section	Nom.	18AWG	Temperature Range:	
DC Resistance per core at 20° C	max	Ω/km	During Installation	° C -5° C up to +50°C
Insulation Resistance at 20° C	min	MΩ*km	Fixed Installation	° C -40° C up to +75°C
Mutual Capacitance	max	nF/km	Insulation Operation	-40° C up to +90°C
Inductance	max	mH/km	Min. Bending Radius	mm 8 x cable diameter
Test Voltage - Core/Core	V	2000	Max Pulling Tension	N/mm2 164
Test Voltage - Core/Screen	V	2000	Weight Approx	kg/km 105
L/R Ratio	max	μH/Ω		
Operating Voltage	V	300		



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