Technical Data

Document Reference
17/02153R1

UL 13

RAMCROil - INSTRUMENTATION Cable
For standard applications, low smoke, Halogen Free

Single-Triad, XLPE-Insulation, Collective Screen, LSZH-Sheath

MAS3705HEEXO-UL13 XLPE/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	**1x3x18AWG**		
		Unit	Nominal Value
Formation	1 Triad		
Section	18AWG		
Conductor	Plain annealed copper wire, 7 strand	mm	1,2
Insulation	Cross Linked Polyetilene - XLPE	mm	2,0
Colour Code	White, Black, Red		
Individual Screen	N.A.		
Wrapping	at least 1 layer of plastic tape 0,023 mm + comm core AWG22 orange		
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 - Black	mm	6,5
Cable Printing	RAMCRO S.p.A. – (UL) Listed E345186 Type PLTC - 1 tr 18 - Shielded - 75°C + 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:	UL 13
Type of Cable:	PLTC Cable
Low Voltage Directive	2014/35/UE
Other References:	
- NEC code, sec. 725 PLTC,	
- NEC code, sec. 727 ITC,	
- UL 1685	
- ASTM D 1239	
- 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	21,4	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	10 x cable diameter
Test Voltage - Core/Core	V	2000	Max Pulling Tension	N/mm2	123
Test Voltage - Core/Screen	V	2000	Weight Approx	kg/km	77
L/R Ratio	max µH/Ω	40			
Operating Voltage	V	300			

RoHS 2002/95/EC