

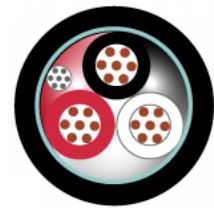


# Technical Data

## Document Reference

17/02153R1

UL 13



### RAMCROii - 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

| Formation         | 1 Triad   | Unit | Nominal Value |
|-------------------|---|------|---------------|
| 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:                   |                        | 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                    |            |
| Sunlight resistance                 | UL 1581 section 1200   | - NF C 32-020                    |            |
| Notes                               |                        | - IRAM IAP                       |            |

#### Electrical & Mechanical Data

|                                 |                    |       |                     |                         |
|---------------------------------|--------------------|-------|---------------------|-------------------------|
| Conductor Cross-section         | Nom.               | 18AWG | Temperature Range:  |                         |
| DC Resistance per core at 20° C | max $\Omega$ /km   | 21,4  | During Operation    | ° C -30° C up to +90° C |
| Insulation Resistance at 20° C  | min $M\Omega$ *km  | 5000  | During Installation | ° C -5° C up to +50° C  |
| Mutual Capacitance              | max nF/km          | 150   | Min. Bending Radius | mm 10 x cable diameter  |
| Inductance                      | max mH/km          | 1     | Max Pulling Tension | N/mm2 123               |
| Test Voltage - Core/Core        | V                  | 2000  | Weight Approx       | kg/km 77                |
| Test Voltage - Core/Screen      | V                  | 2000  |                     |                         |
| L/R Ratio                       | max $\mu H/\Omega$ | 40    |                     |                         |
| Operating Voltage               | V                  | 300   |                     |                         |



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Form 1

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