



Reference: 10263802
Country Ref.: 2PM021

CONTACT

Markets and Products Information
 rollingstock.business@lynxeogroup.com

FIRE RESISTANT ETHERNET CABLES

Fostering innovation, Lynxéo designed FLAMEX® Ethernet FR that can reach data transmission performances for Category 5E or 6A as described in the ISO/CEI 11801, showing no loss of data train and no drop of the transmission parameters when burnt. This unique fire performance is achievable thanks to our technology for fire resistant cables known as INFIT™. On top of the fire performances, this technology makes easier and faster the preparation and the connection of the wires with rolling stock connectors compared to older taping technologies. FLAMEX® FR Ethernet cables are fire retardant, low smoke and halogen-free satisfying performance requirements from EN 45545-2.

STANDARDS

Product EN 50464-1; EN 45545-2 (HL3)

Test EN 50200

DESIGN

1. Conductor

Stranded tinned copper (metric or AWG sizes)

2. Insulation

Special halogen-free INFIT™ fire proof material
 Quad or Pairs assemblies

3. Screen

Tinned copper braid
 Separator tape

4. Outer sheath

Cross-linked material EM 104 or EM 101 acc. EN 50264-1
 Oil, diesel, ozone and UV resistant
 Colour: red

Example of marking: FLAMEX 239 - EDE 2PM653 - [4(2x0.25mm² 10Gigabit CAT 6A)] M S - EN 50200 - week and year of manufacture - batch number

ADDITIONAL INFORMATION

- Fire resistant acc. to:
 - EN 50200 PH 30-60 tested under 110 V
 - EN 50200 PH 90 Ethernet frame loss and transmission parameter
- Bending radius:
 - Static use: 8 x outer cable diameter
 - For installation and occasional movements: 10 x outer cable diameter



Conductor flexibility
Flexible stranded



Halogen free
 EN 60754-1 & EN 60684-2



Fire resistant
 EN 50200 PH90



Flame retardant
 EN 60332-1-2



Fire retardant
 IEC 60331-25



Smoke density
 EN/IEC 61034-2



Gases toxicity
 EN 50305-9.2



Electro magnetic interference resistance
Yes

CHARACTERISTICS**Construction characteristics**

| | |
|-----------------------|-------------------------|
| Conductor material | Tin plated copper |
| Type of cable | CAT 5E |
| Construction type | 4x0,5 |
| Lay Up | Quad |
| Conductor flexibility | Flexible stranded |
| Outer sheath | Cross-linked compound |
| Sheath colour | Red |
| Core identification | A |
| Screen | Tinned copper braid |
| Halogen free | EN 60754-1 & EN 60684-2 |

Dimensional characteristics

| | |
|------------------------|----------|
| Core diameter | 2.6 mm |
| Minimum cable diameter | 8.1 mm |
| Maximum cable diameter | 8.5 mm |
| Approximate weight | 96 kg/km |

Electrical characteristics

| | |
|--------------------------|---------|
| Characteristic impedance | 100 Ohm |
|--------------------------|---------|

Usage characteristics

| | |
|--|----------------------------------|
| Fire resistant | EN 50200 PH90 |
| Fire safety | EN 50200 PH 90 Ethernet protocol |
| Flame retardant | EN 60332-1-2 |
| Fire retardant | IEC 60331-25 |
| Smoke density | EN/IEC 61034-2 |
| Gases toxicity | EN 50305-9.2 |
| Electro magnetic interference resistance | Yes |
| Chemical resistance | Good |