



**CABLES FOR  
SECURITY SIYSTEMS:  
Fire and alarm  
system**



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# Who we are

Specialcavi is a manufacturing company founded in 1990, specialized in the production of electrical cables. We operate throughout Europe and offer a wide range of cables designed for various applications, including data transmission, power, control and signaling, solar systems, fire-resistant solutions, for both civil and industrial uses. Moreover, we design and manufacture custom cables based on specific customer requirements.

## **INNOVATION AND PRODUCT QUALITY CONTROL**

We continuously upgrade our machinery, equipment, and instruments to keep pace with ongoing technological innovation.

All our cables undergo thorough internal quality checks in compliance with the latest Italian, European, and international standards.



## **QUALIFIED STAFF AND CUSTOMER-CENTRIC APPROACH**

Our goal is not only to be reliable suppliers, but exceptional partners for our clients.

We strive to ensure complete customer satisfaction through the quality and reliability of our products, supported by attentive and competent pre- and post-sales service.

## **CERTIFICATIONS AND QUALITY**

We have obtained major quality certifications and environmental sustainability ratings, demonstrating our commitment to excellence in cable manufacturing, sustainability, and corporate social responsibility.

## **OUR NEW WEBSITE: [www.specialcavi.it](http://www.specialcavi.it)**

We have redesigned our website to offer a clearer, more functional experience tailored to your professional needs.

The new structure simplifies access to product information and technical documentation.

Each section is designed to guide you in selecting the most suitable cable for your applications, with regularly updated and easily accessible content.

# About the cables

In **security systems**, choosing the right cable is essential to ensure reliability, operational continuity, and regulatory compliance. Fire-resistant and intrusion detection cables serve different technical purposes, while sharing the common goal of protection.

- **Fire-resistant cables** are designed to maintain signal transmission even under fire conditions, thanks to materials that withstand high temperatures and emit low levels of smoke and toxic gases (LSZH). They comply with CPR (EN 50575) and CEI 20-105 standards, and are used in smoke detection, evacuation, and voice alarm systems.
- **Intrusion detection cables** are engineered to ensure stable and protected signal transmission in residential, commercial, and industrial environments. Equipped with shielding against electromagnetic interference (EMC), they guarantee the reliability of perimeter detection and alarm systems.

Below is the list of fire-resistant and intrusion detection cables manufactured by Specialcavi. For each product, you will find manufacturing characteristics, CPR classification, and application details, along with a dedicated QR code.

## HOW DOES THE QR CODE WORK?

By scanning the QR code with a smartphone or tablet, you will be redirected directly to the product page on our website.

It's a simple and immediate way to always have access to the most up-to-date information, wherever you are.

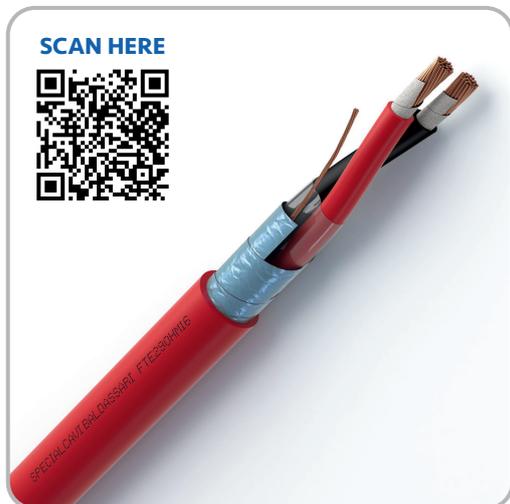
From there, you can access in real time:

- Technical datasheet
- Declaration of Performance (DoP)
- CE declaration
- Technical, application, and regulatory specifications

# FIRE-RESISTANT CABLES

## FTE29OHM16

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### MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, E29 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** aluminum/polyester tape, with flexible bare copper drain wire
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** red, based on RAL 3000
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s1b,d1,a1**

### APPLICATIONS

Fire resistant LSZH shielded cable (PH120), compliant with CPR EU 305/11, designed to limit the spread of fire and smoke, and suitable for fixed automatic fire detection system connections according to CEI 20-105:2024, CEI UNEL 35338, and UNI 9795:2021 standards. Also suitable for other applications with operating voltages  $\leq 100V$  AC. Must be protected from UV rays if stored outdoors. Buried laying and outdoor laying are not permitted.

## FTE29OHM16 G4

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### MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, E29 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** aluminum/polyester tape, with flexible bare copper drain wire
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** red, based on RAL 3000
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s1b,d1,a1**

### APPLICATIONS

Fire resistant LSZH shielded cable (PH120), compliant with CPR EU 305/11, designed to limit the spread of fire and smoke, and suitable for fixed automatic fire detection system connections according to CEI 20-105:2024 PQA and UNI 9795:2021 standards. Also suitable for other applications with operating voltages  $\leq 100V$  AC. Outdoor laying and storing with UV protection are allowed. Buried laying with protection is permitted.

## MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, E29 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** aluminum/polyester tape, with flexible bare copper drain wire
- **Inner sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Armour:** galvanized steel braiding (braid wire nominal diameter  $\geq 0,24\text{mm}$ )
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** red, based on RAL 3000
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s1b,d1,a1**

## APPLICATIONS

Fire resistant LSZH shielded and armoured cable (PH120), compliant with CPR EU 305/11, designed to limit the spread of fire and smoke, with reinforced outer sheath (0.6/1KV), suitable for fixed automatic fire detection system connections according to CEI 20-105:2024 PQA and UNI 9795:2021. Also suitable for other applications with operating voltages  $\leq 100\text{V AC}$ . Buried laying (direct and with protection) and outdoor laying with UV protection are allowed.

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## MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH thermoplastic compound, S29 type, according to CEI 20-11
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** purple, based on RAL 4005
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s1b,d1,a1**

## APPLICATIONS

Fire system LSZH cable (PH120), compliant with CPR EU Regulation 305/11, suitable for fixed automatic fire alarm signalling systems (voice evacuation - EVAC), according to CEI 20-105:2024, CEI UNEL 35338, and UNI 9795:2021. Also suitable for other applications with operating voltages  $\leq 100\text{V AC}$ . If stored outdoors, the cable must be protected from UV rays. Buried laying and outdoor laying are not allowed.

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## FTG18M16



### MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, G18 type, according to CEI 20-11
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** blue, based on RAL 5015
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 B2ca-s1a,d1,a1**

### APPLICATIONS

Fire system LSZH single-core cable, compliant with CPR EU Regulation 305/11, designed for emergency power supply in fire-risk environments (120 min fire resistant). Ideal for powering emergency exits, emergency lighting, alarm signals, fire pumps, fire curtains, and other applications with operating voltage >100V AC. Buried laying (direct and with protection) and outdoor laying with UV protection are allowed.

## FTG18OM16



### MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, G18 type, according to CEI 20-11
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** blue, based on RAL 5015
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 B2ca-s1a,d1,a1**

### APPLICATIONS

Multi-core LSZH cable, compliant with CPR EU 305/11, designed to limit the spread of fire and smoke, fire-resistant for 120 minutes, designed for emergency power supply in fire-risk environments. Ideal for safety exits, emergency lighting, alarm devices, fire pumps, fire curtains, and other applications over 100V AC. Buried laying (direct and with protection) and outdoor laying with UV protection are allowed.

## MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, G18 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** bare copper braid
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** blue, based on RAL 5015
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 B2ca-s1a,d1,a1**

## APPLICATIONS

Fire system LSZH multi-core shielded cable, compliant with CPR EU 305/11, designed to limit the spread of fire and smoke, for emergency power supply in fire risk environments (120 min fire resistant). Ideal for powering emergency exits, emergency lighting, alarm signals, fire pumps, fire curtains, and other applications with operating voltage >100V AC. Buried laying (direct and with protection) and outdoor laying with UV protection are allowed.



## MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Fire protection:** mica tape
- **Insulation:** LSZH crosslinked compound, G18 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Inner sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Armour:** galvanized steel braiding (braid wire nominal diameter  $\geq 0,24\text{mm}$ )
- **Outer sheath:** LSZH thermoplastic compound, M16 type, according to CEI 20-11
- **Outer sheath colour:** blue, based on RAL 5015
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 B2ca-s1a,d1,a1**

## APPLICATIONS

Multi-core LSZH armoured, compliant with CPR EU 305/11, fire system (120 min.) for emergency power in fire-risk environments. Ideal for safety exits, emergency lighting, alarm signals, fire pumps, fire curtains, and other applications with operating voltage >100V AC. Buried laying (direct and with protection) and outdoor laying with UV protection are allowed.







# CAVI ANTINTRUSIONE

## ALARM FM1OHM1

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### MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Insulation:** LSZH thermoplastic compound, M1 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** aluminum/polyester tape, with flexible bare copper drain wire
- **Outer sheath:** LSZH thermoplastic compound, M1 type, according to CEI 20-11
- **Outer sheath colour:** grey, based on RAL 7001
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s1a,d0,a1**

### APPLICATIONS

Multi-core LSZH shielded cable for fire systems, compliant with EU CPR Regulation 305/11. Designed to limit the spread of fire and smoke in high-risk areas with high presence of people, such as schools, offices, theatres, and hospitals. Must be protected from UV rays if stored outdoors. Outdoor laying and buried laying, even with protection, are not allowed.

## ALARM FROHR16

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### MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Insulation:** polyvinyl chloride (PVC) compound, R2 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** aluminum/polyester tape, with flexible bare copper drain wire
- **Outer sheath:** polyvinyl chloride (PVC) compound, R16 type, according to CEI 20-11
- **Outer sheath colour:** white, based on RAL 9010
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s2,d0,a3**

### APPLICATIONS

Shielded cable for alarm systems, compliant with EU CPR Regulation 305/11, designed to limit the spread of fire and smoke. Suitable for alarm and anti-intrusion systems. Can be installed in coexistence with 450/750V energy cables. When used for category 0 systems (rated voltage  $\leq 50V$  AC or 120V DC), can also coexist with 0.6/1kV energy cables. Outdoor laying and buried laying, even with protection, are not allowed.

## MANUFACTURING CHARACTERISTICS

- **Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- **Insulation:** polyvinyl chloride (PVC) compound, R2 type, according to CEI 20-11
- **Wrapping and protection:** polyester tape
- **Screen:** aluminum/polyester tape, with flexible bare copper drain wire
- **Outer sheath:** polyvinyl chloride (PVC) compound, R16 type, according to CEI 20-11
- **Outer sheath colour:** blue, based on RAL 5015
- **Cable geometry:** round

**CPR CLASS: EN 50575:2014+A1:2016 Cca-s2,d0,a3**

## APPLICATIONS

Multi-core shielded cable for control and signalling, compliant with EU CPR Regulation 305/11 and designed to limit the spread of fire and smoke. Features reinforced outer sheath (0.6/1kV) and full shielding for safe low-frequency signal and data transmission. Ideal for alarm and anti-intrusion systems, suitable in coexistence with 0.6/1kV energy cables in industrial installations. Buried laying with protection and outdoor laying in perimeter systems are allowed.









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