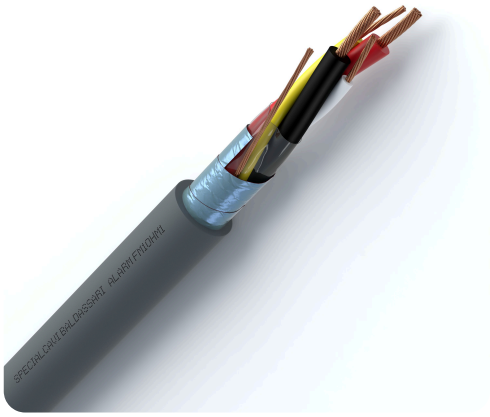
ALARM FM1OHM1

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



The product render is for illustration only.

Application

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. Can be installed in coexistence with 450/750V energy cables. When used for category 0 systems (rated voltage ≤50V AC or 120V DC), can also coexist with 0.6/1kV energy cables. Must be protected from UV rays if stored outdoors. Outdoor laying and buried laying, even with protection, are not allowed.

Marking

<meters> CE 0987 SPECIALCAVI BALDASSARI ALARM FM1OHM1 LSZH <formation> CEI UNEL 36762 C-4 (U_0=400V) IEC 60332-3-24 CCA-S1A,D0,A1 <lot> <year>

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

On request

- Custom cores and outer sheath colouring

Notes

- For sections < 0,50 mm², conductor is copper bare multi-wires

Reaction to fire - EN 13501-6

Reaction to fire according to EN 13501-6: Class
Cca

Reaction to fire according to EN 13501-6: Smoke production
s1a

Reaction to fire according to EN 13501-6: Flaming droplets/particles
d0

Reaction to fire according to EN 13501-6: Acidity
a1

Specify standards

Installation standard

Identification and tests to be used for cables for category 0 systems in relation to coexistence in ducts containing cables for category I systems: CEI UNEL 36762

CPR standard for reaction to fire

Common test methods for cables under fire conditions - Heat release and smoke production measurement on cables during flame spread test: EN 50399

Electrical characteristics

Nominal voltage U_o:
- 300V

Nominal voltage U:
- 500V

Sheath operating voltage:
- 450/750V

Test voltage:
- 2,0kV 50Hz A.C. (5 min) c-c
- 1,5kV 50Hz A.C. (1 min) c-s

Maximum voltage:
- U_o/U 410/820V D.C.
- U_o/U 320/550V A.C.

Minimum insulation resistance:
- >100MΩxKm

Temperatures

Permitted cable outer temperature during assembling/handling
0°C

Operating temperature range
-30°C | +70°C

Maximum conductor temperature
+70°C

Maximum short-circuit temperature
+160°C

Product characteristics

Flame retardant	IEC 60332-1-2	✓
	IEC 60332-3-21 (Cat A F/R)	✗
	IEC 60332-3-22 (Cat A)	✗
	IEC 60332-3-23 (Cat B)	✗
	IEC 60332-3-24 (Cat C)	✓
	IEC 60332-3-25 (Cat D)	✓
Low smoke	EN IEC 61034-2	✓
Halogen Free	EN IEC 60754-1	✓
	EN IEC 60754-2	✓
	EN IEC 60754-3	✗

Oil resistant	EN IEC 60811-404	✓
Low temperature resistant	EN 60811-504+505+506	✓
UV resistant		✗
Ozone resistant		✗
Hydrocarbons resistant	ENI 181	✓
Fire resistant	IEC 60331-1 (diameter > 20 mm) or EN 50200 (diameter < 20 mm)	✗
Presence of water	HD 60364-5-54:2009	✗
Impact resistant	HD 60364-5-54:2009	✗

Laying conditions

FIXED LAYING ✓

INDOOR LAYING ✓

LAYING IN AIR WITH PROTECTION ✓

MAXIMUM TENSILE STRENGTH DURING INSTALLATION
0,050 kN copper cross-section of conductors

MOBILE LAYING ✗

OUTDOOR LAYING ✗

DIRECTLY BURIED LAYING ✗

WITH RODENT PROTECTION ✗

OCCASIONAL MOBILE LAYING W/O STRESS ✗

LAYING IN FREE AIR ✓

BURIED LAYING WITH PROTECTION ✗

MINIMUM BENDING RADIUS
10 times the outer diameter

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Nominal cross section conductor [mm²]	Conductor resistance at 20°C [Ohm/Km]
0.22	90
0.50	39,0
0.50 | 0.22	39,0 | 90
0.75 | 0.22	26,0 | 90
1.00	19,5
1.50	13,3

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Article code	Formation [n° x mm²]	Twisted/stranded cores	Outer diameter approx [mm]	Weight approx [Kg/Km]	Cores colour
FMH02202	2 X 0,22	Cores twisted in a pair	3,5	22	White-Yellow
FMH02204	4 X 0,22	Cores twisted in a quad	4,0	26	White-Yellow-Green-Blue
FMH02206	6 X 0,22	Cores stranded in concentric layers	4,7	36	White-Yellow-Green-Blue-Grey-Orange
FMH02208	8 X 0,22	Cores stranded in concentric layers	5,5	45	White-Yellow-Green-Blue-Grey-Orange-Brown-Purple
FMH02210	10 X 0,22	Cores stranded in concentric layers	5,9	54	White-Yellow-Green-Blue-Grey-Orange-Brown-Purple-Red-Black
FMH05002	2 X 0,50	Cores twisted in a pair	4,7	31	White-Yellow
FMH50222	2 X 0,50 + 2 X 0,22	Cores stranded in concentric layers	5,2	39	Red-Black-White-Yellow
FMH50422	2 X 0,50 + 4 X 0,22	Cores stranded in concentric layers	5,4	46	Red-Black-White-Yellow-Green-Blue
FMH50622	2 X 0,50 + 6 X 0,22	Cores stranded in concentric layers	6,1	56	Red-Black-White-Yellow-Green-Blue-Grey-Orange
FMH50822	2 X 0,50 + 8 X 0,22	Cores stranded in concentric layers	6,9	66	Red-Black-White-Yellow-Green-Blue-Grey-Orange-Brown-Purple
FMH75222	2 X 0,75 + 2 X 0,22	Cores stranded in concentric layers	5,4	46	Red-Black-White-Yellow
FMH75422	2 X 0,75 + 4 X 0,22	Cores stranded in concentric layers	5,8	54	Red-Black-White-Yellow-Green-Blue
FMH75622	2 X 0,75 + 6 X 0,22	Cores stranded in concentric layers	6,3	63	Red-Black-White-Yellow-Green-Blue-Grey-Orange
FMH75822	2 X 0,75 + 8 X 0,22	Cores stranded in concentric layers	7,5	74	Red-Black-White-Yellow-Green-Blue-Grey-Orange-Brown-Purple
FMH10002	2 X 1,00	Cores twisted in a pair	5,8	46	White-Yellow
FMH15002	2 X 1,50	Cores twisted in a pair	6,9	64	White-Yellow