

FG18M16AM16

CPR CLASS: EN 50575:2014+A1:2016 B2ca-s1a,d0,a1

Application

Single-core cable for energy, signalling and control, compliant with CPR EU 305/11, designed to limit the spread of fire and smoke. Suitable for high fire-risk areas with a high presence of people such as, tunnels, and subways. The armouring makes it ideal for heavy-duty applications in direct current circuits. Must be protected from UV rays if stored or laid outdoor. Buried laying (direct and with protection) is allowed.

Marking

<meters> CE 0987 SPECIALCAVI BALDASSARI FG18M16AM16 <formation> 0,6/1kV IEC 60332-3-24 B2CA-S1A,D0,A1 <lot> <year>



The product render is for illustration only.
Copyright Specialcavi Baldassari S.r.l. (C.F. 01387320466) – all rights reserved.

Manufacturing characteristics

- Conductor:** bare copper class 5 flexible, according to CEI 20-29 EN IEC 60228
- Insulation:** LSZH crosslinked compound, G18 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:** black, based on RAL 9005
- Cable geometry:** round

On request

- Custom cores and outer sheath colouring
- Aluminium braid armour for applications in A.C.

Reaction to fire - EN 13501-6

Reaction to fire according to EN 13501-6: Class
B2ca

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

Product standard

Energy, signalling and control LSZH cable (600/1000V): CEI 20-38 P.Q.A.

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_0 :

- 600V

Nominal voltage U :

- 1000V

Sheath operating voltage:

- 600/1000V

Test voltage:

- 3,0kV 50Hz A.C. (5 min) c-a

Maximum voltage:

- U_0/U 1800/1800V D.C.

Minimum insulation resistance:

- >200M Ω xKm

Temperatures

Permitted cable outer temperature during assembling/handling
0°C

Operating temperature range
-30°C | +90°C

Maximum conductor temperature
+90°C













Maximum short-circuit temperature
+250°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	AD7
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 yes, with UV protection	 DIRECTLY BURIED LAYING ✓	 WITH RODENT PROTECTION ✓
 OCCASIONAL MOBILE LAYING W/O STRESS ✗	 LAYING IN FREE AIR ✓	 BURIED LAYING WITH PROTECTION ✓	 MINIMUM BENDING RADIUS 14 times the outer diameter

FG18M16AM16

Nominal cross section conductor [mm ²]	Conductor resistance at 20°C [Ohm/Km]
10.00	1,91
16.00	1,21
25.00	0,780
35.00	0,554
50.00	0,386
70.00	0,272
95.00	0,206
120.00	0,161
150.00	0,129
185.00	0,106
240.00	0,0801

FG18M16AM16

Article code	Formation [n° x mm ²]	Diameter under armour approx [mm]	Outer diameter approx [mm]	Weight approx [Kg/Km]	Cores colour
GMAU100001	1 X 10,00	6,3	11,2	253	Black
GMAU160001	1 X 16,00	7,4	12,3	322	Black
GMAU250001	1 X 25,00	9,2	14,1	452	Black
GMAU350001	1 X 35,00	10,4	15,2	571	Black
GMAU500001	1 X 50,00	12,3	17,2	750	Black
GMAU700001	1 X 70,00	14,0	19,0	983	Black
GMAU950001	1 X 95,00	15,9	20,8	1232	Black
GMAU1200001	1 X 120,00	17,5	22,5	1521	Black
GMAU1500001	1 X 150,00	19,6	24,8	1901	Black
GMAU1850001	1 X 185,00	21,5	27,1	2280	Black
GMAU2400001	1 X 240,00	24,8	31,0	3026	Black