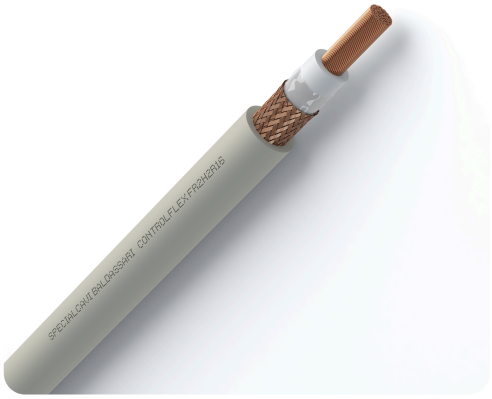
CONTROLFLEX FR2H2R16 O.R.

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



The product render is for illustration only.

Application

Single core shielded cable for control, signalling, command or measurement systems, compliant with EU CPR Regulation 305/11, designed to limit the spread of fire and smoke. The oil-resistant outer sheath and shielding make it suitable for civil and industrial indoor laying, machine edge applications, as well as areas requiring protection against electromagnetic interference. Buried laying and outdoor laying, even with protection, are not allowed.

Marking

<meters> CE 0987 SPECIALCAVI BALDASSARI CONTROLFLEX FR2H2R16 O.R. <formation> 450/750V IEC 60332-3-24 CCA-S2,D0,A3 <lot> <year>

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: bare copper braid

Outer sheath: polyvinyl chloride (PVC) compound, R16 type, according to CEI 20-11, oil resistant

Outer sheath colour: grey, based on RAL 7035

Cable geometry: round

On request

- Custom cores and outer sheath colouring

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
s2

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

Reaction to fire according to EN 13501-6: Acidity
a3

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

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Electrical characteristics

Nominal voltage U_o:
- 300V sections ≤ 0,75 mm²
- 450V sections ≥ 1,00 mm²

Nominal voltage U:
- 500V sections ≤ 0,75 mm²
- 750V sections ≥ 1,00 mm²

Sheath operating voltage:
- 450/750V

Test voltage:
- 2,0kV 50Hz A.C. (5min) c-c sec≤0,75mm²
- 1,5kV 50Hz A.C. (1min) c-s sec≤ 0,75mm²
- 2,5kV 50Hz A.C. (5min) c-c sec≥1mm²
- 2,0kV 50Hz A.C. (1min) c-s sec≥1mm²

Maximum voltage:
- U_o/U 410/820V D.C. sec ≤ 0,75 mm²
- U_o/U 320/550V A.C. sec ≤ 0,75 mm²
- U_o/U 620/1240V D.C. sec ≥ 1,00 mm²
- U_o/U 480/825V A.C. sec ≥ 1,00 mm²

Minimum insulation resistance:
- >200MΩxKm

Temperatures

Permitted cable outer temperature during assembling/handling
-5°C

Operating temperature range
Fixed laying: -25°C |+70°C
Occasional mobile laying w/o stress: -5°C |+70°C

Maximum conductor temperature
Fixed laying: +70°C
Occasional mobile laying w/o stress: +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]
0.50	39,0
0.75	26,0
1.00	19,5
1.50	13,3

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Article code	Formation [n° x mm²]	Outer diameter approx [mm]	Weight approx [Kg/Km]	Cores colour	Cores identification standards
CFZ05001	1 X 0,50	3,4	20	White	DIN 47100
CFZ07501	1 X 0,75	3,7	24	White	DIN 47100
CFZ10001	1 X 1,00	3,9	29	White	DIN 47100
CFZ15001	1 X 1,50	4,4	37	White	DIN 47100