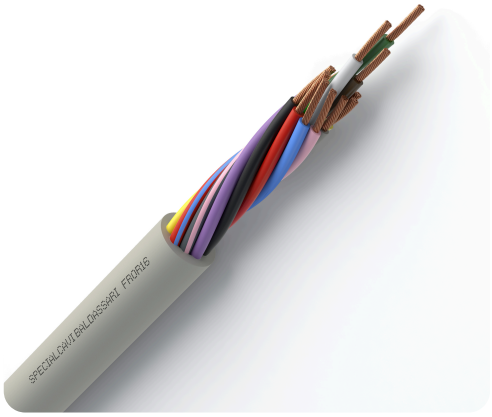
FROR16 O.R. DIN

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



The product render is for illustration only.

Application

Multi-core data transmission cable with oil-resistant outer sheath, compliant with CPR EU 305/11, designed to limit the spread of fire and smoke. Ideal for intercoms, civil, industrial, and machine-edge applications. Suitable for fixed laying or occasional acyclic mobile laying without stress. Buried laying and outdoor laying are not allowed.

Marking

<meters> CE 0987 SPECIALCAVI BALDASSARI FROR16 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

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
- Galvanized steel braid armour

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

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. (5 min) c-c sec≤0,75mm²
- 2,5kV 50Hz A.C. (5 min) c-c sec≥1,00mm²

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
Fixed laying: 8 times the outer diameter
Occasional mobile laying w/o stress: 15 times the outer diameter

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Nominal cross section conductor [mm²]	Conductor resistance at 20°C [Ohm/Km]
0.25	75
0.35	52
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]	Twisted/stranded cores	Outer diameter approx [mm]	Weight approx [Kg/Km]	Cores colour	Cores identification standards	EPD
FRZ02502	2 X 0,25	Cores twisted in concentric layers	3,6	22	White-Brown	DIN 47100	⊗
FRZ02503	3 X 0,25	Cores twisted in concentric layers	3,7	26	White-Brown-Green	DIN 47100	⊗
FRZ02504	4 X 0,25	Cores twisted in concentric layers	4,2	31	White-Brown-Green-Yellow	DIN 47100	⊗
FRZ02505	5 X 0,25	Cores stranded in concentric layers	4,6	38	White-Brown-Green-Yellow-Grey	DIN 47100	⊗
FRZ02506	6 X 0,25	Cores stranded in concentric layers	5,0	48	White-Brown-Green-Yellow-Grey-Pink	DIN 47100	⊗
FRZ02508	8 X 0,25	Cores stranded in concentric layers	6,1	64	White-Brown-Green-Yellow-Grey-Pink-Blue-Red	DIN 47100	⊗
FRZ02510	10 X 0,25	Cores stranded in concentric layers	6,7	78	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple	DIN 47100	⊗
FRZ02512	12 X 0,25	Cores stranded in concentric layers	6,7	82	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue	DIN 47100	⊗
FRZ02514	14 X 0,25	Cores stranded in concentric layers	7,1	91	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green	DIN 47100	⊗
FRZ02516	16 X 0,25	Cores stranded in concentric layers	7,5	106	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown	DIN 47100	⊗
FRZ02520	20 X 0,25	Cores stranded in concentric layers	8,5	131	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown	DIN 47100	⊗
FRZ02525	25 X 0,25	Cores stranded in concentric layers	9,6	169	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown-White/Blue-Brown/Blue-White/Red-Brown/Red-White/Black	DIN 47100	⊗
FRZ03502	2 X 0,35	Cores twisted in concentric layers	4,3	29	White-Brown	DIN 47100	⊗
FRZ03503	3 X 0,35	Cores twisted in concentric layers	4,4	34	White-Brown-Green	DIN 47100	⊗
FRZ03504	4 X 0,35	Cores twisted in concentric layers	4,9	41	White-Brown-Green-Yellow	DIN 47100	⊗
FRZ03505	5 X 0,35	Cores stranded in concentric layers	5,4	54	White-Brown-Green-Yellow-Grey	DIN 47100	⊗
FRZ03506	6 X 0,35	Cores stranded in concentric layers	5,9	62	White-Brown-Green-Yellow-Grey-Pink	DIN 47100	⊗
FRZ03508	8 X 0,35	Cores stranded in concentric layers	7,2	86	White-Brown-Green-Yellow-Grey-Pink-Blue-Red	DIN 47100	⊗
FRZ03510	10 X 0,35	Cores stranded in concentric layers	7,8	107	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple	DIN 47100	⊗
FRZ03512	12 X 0,35	Cores stranded in concentric layers	7,8	112	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue	DIN 47100	⊗
FRZ03514	14 X 0,35	Cores stranded in concentric layers	8,4	127	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green	DIN 47100	⊗
FRZ03516	16 X 0,35	Cores stranded in concentric layers	9,0	143	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown	DIN 47100	⊗

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Article code	Formation [n° x mm²]	Twisted/stranded cores	Outer diameter approx [mm]	Weight approx [Kg/Km]	Cores colour	Cores identification standards	EPD
FRZ03518	18 X 0,35	Cores stranded in concentric layers	9,6	163	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown	DIN 47100	✗
FRZ03520	20 X 0,35	Cores stranded in concentric layers	10,2	184	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown	DIN 47100	✗
FRZ03525	25 X 0,35	Cores stranded in concentric layers	11,3	227	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown-White/Blue-Brown/Blue-White/Red-Brown/Red-White/Black	DIN 47100	✗
FRZ05002	2 X 0,50	Cores twisted in concentric layers	4,4	30	White-Brown	DIN 47100	✓
FRZ05003	3 X 0,50	Cores twisted in concentric layers	4,6	40	White-Brown-Green	DIN 47100	✓
FRZ05004	4 X 0,50	Cores twisted in concentric layers	5,1	48	White-Brown-Green-Yellow	DIN 47100	✓
FRZ05005	5 X 0,50	Cores stranded in concentric layers	5,7	60	White-Brown-Green-Yellow-Grey	DIN 47100	✓
FRZ05006	6 X 0,50	Cores stranded in concentric layers	6,3	73	White-Brown-Green-Yellow-Grey-Pink	DIN 47100	✗
FRZ05007	7 X 0,50	Cores stranded in concentric layers	6,3	76	White-Brown-Green-Yellow-Grey-Pink-Blue	DIN 47100	✗
FRZ05008	8 X 0,50	Cores stranded in concentric layers	7,5	104	White-Brown-Green-Yellow-Grey-Pink-Blue-Red	DIN 47100	✗
FRZ05010	10 X 0,50	Cores stranded in concentric layers	8,2	125	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple	DIN 47100	✗
FRZ05012	12 X 0,50	Cores stranded in concentric layers	8,2	133	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue	DIN 47100	✗
FRZ05014	14 X 0,50	Cores stranded in concentric layers	8,9	151	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green	DIN 47100	✗
FRZ05016	16 X 0,50	Cores stranded in concentric layers	9,4	173	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown	DIN 47100	✗
FRZ05018	18 X 0,50	Cores stranded in concentric layers	9,9	193	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown	DIN 47100	✗
FRZ05020	20 X 0,50	Cores stranded in concentric layers	10,6	216	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown	DIN 47100	✗
FRZ05024	24 X 0,50	Cores stranded in concentric layers	12,2	272	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown-White/Blue-Brown/Blue-White/Red-Brown/Red	DIN 47100	✗
FRZ07502	2 X 0,75	Cores twisted in concentric layers	5,0	43	White-Brown	DIN 47100	✓
FRZ07503	3 X 0,75	Cores twisted in concentric layers	5,2	52	White-Brown-Green	DIN 47100	✓
FRZ07504	4 X 0,75	Cores twisted in concentric layers	6,0	66	White-Brown-Green-Yellow	DIN 47100	✓
FRZ07505	5 X 0,75	Cores stranded in concentric layers	6,7	83	White-Brown-Green-Yellow-Grey	DIN 47100	✓
FRZ07506	6 X 0,75	Cores stranded in concentric layers	7,3	103	White-Brown-Green-Yellow-Grey-Pink	DIN 47100	✗
FRZ07507	7 X 0,75	Cores stranded in concentric layers	7,3	104	White-Brown-Green-Yellow-Grey-Pink-Blue	DIN 47100	✗
FRZ07508	8 X 0,75	Cores stranded in concentric layers	8,9	142	White-Brown-Green-Yellow-Grey-Pink-Blue-Red	DIN 47100	✗
FRZ07510	10 X 0,75	Cores stranded in concentric layers	9,7	177	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple	DIN 47100	✗
FRZ07512	12 X 0,75	Cores stranded in concentric layers	9,7	187	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue	DIN 47100	✗
FRZ07516	16 X 0,75	Cores stranded in concentric layers	10,9	239	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown	DIN 47100	✗
FRZ07520	20 X 0,75	Cores stranded in concentric layers	12,6	306	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown	DIN 47100	✗
FRZ07525	25 X 0,75	Cores stranded in concentric layers	14,1	388	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown-White/Blue-Brown/Blue-White/Red-Brown/Red-White/Black	DIN 47100	✗

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Article code	Formation [n° x mm²]	Twisted/stranded cores	Outer diameter approx [mm]	Weight approx [Kg/Km]	Cores colour	Cores identification standards	EPD
FRZ10002	2 X 1,00	Cores twisted in concentric layers	5,6	54	White-Brown	DIN 47100	✓
FRZ10003	3 X 1,00	Cores twisted in concentric layers	5,8	64	White-Brown-Green	DIN 47100	✓
FRZ10004	4 X 1,00	Cores twisted in concentric layers	6,7	83	White-Brown-Green-Yellow	DIN 47100	✓
FRZ10005	5 X 1,00	Cores stranded in concentric layers	7,3	106	White-Brown-Green-Yellow-Grey	DIN 47100	✓
FRZ10006	6 X 1,00	Cores stranded in concentric layers	7,9	125	White-Brown-Green-Yellow-Grey-Pink	DIN 47100	✗
FRZ10007	7 X 1,00	Cores stranded in concentric layers	7,9	132	White-Brown-Green-Yellow-Grey-Pink-Blue	DIN 47100	✗
FRZ10008	8 X 1,00	Cores stranded in concentric layers	9,7	178	White-Brown-Green-Yellow-Grey-Pink-Blue-Red	DIN 47100	✗
FRZ10010	10 X 1,00	Cores stranded in concentric layers	10,7	217	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple	DIN 47100	✗
FRZ10012	12 X 1,00	Cores stranded in concentric layers	10,7	230	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue	DIN 47100	✗
FRZ10014	14 X 1,00	Cores stranded in concentric layers	11,4	267	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green	DIN 47100	✗
FRZ10016	16 X 1,00	Cores stranded in concentric layers	12,0	299	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown	DIN 47100	✗
FRZ10020	20 X 1,00	Cores stranded in concentric layers	13,9	382	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown	DIN 47100	✗
FRZ10025	25 X 1,00	Cores stranded in concentric layers	15,5	477	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown-White/Blue-Brown/Blue-White/Red-Brown/Red-White/Black	DIN 47100	✗
FRZ15002	2 X 1,50	Cores twisted in concentric layers	6,5	74	White-Brown	DIN 47100	✓
FRZ15003	3 X 1,50	Cores twisted in concentric layers	6,8	91	White-Brown-Green	DIN 47100	✓
FRZ15004	4 X 1,50	Cores twisted in concentric layers	7,7	113	White-Brown-Green-Yellow	DIN 47100	✓
FRZ15005	5 X 1,50	Cores stranded in concentric layers	8,4	145	White-Brown-Green-Yellow-Grey	DIN 47100	✓
FRZ15007	7 X 1,50	Cores stranded in concentric layers	9,4	187	White-Brown-Green-Yellow-Grey-Pink-Blue	DIN 47100	✗
FRZ15010	10 X 1,50	Cores stranded in concentric layers	12,7	304	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple	DIN 47100	✗
FRZ15012	12 X 1,50	Cores stranded in concentric layers	12,7	323	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue	DIN 47100	✗
FRZ15016	16 X 1,50	Cores stranded in concentric layers	14,2	425	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown	DIN 47100	✗
FRZ15020	20 X 1,50	Cores stranded in concentric layers	16,3	537	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown	DIN 47100	✗
FRZ15025	25 X 1,50	Cores stranded in concentric layers	18,6	682	White-Brown-Green-Yellow-Grey-Pink-Blue-Red-Black-Purple-Grey/Pink-Red/Blue-White/Green-Brown/Green-White/Yellow-Yellow/Brown-White/Grey-Grey/Brown-White/Pink-Pink/Brown-White/Blue-Brown/Blue-White/Red-Brown/Red-White/Black	DIN 47100	✗