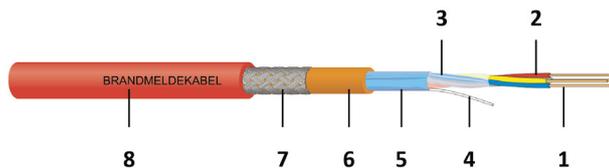


## JE-H(St)HRH...Bd FE180 E30-E90 fire alarm B2<sub>ca</sub>

Fire alarm cable with steel wire braiding, max. 225V, Keram

halogen-free, with improved fire characteristics,  
with reference to VDE 0815,  
circuit integrity (FE180) in accordance with VDE 0472-814, IEC 60331, EN 50200,  
System Circuit Integrity E30-E90\* in accordance with DIN 4102-12  
Fire behaviour according to EN 50575, EN 13601-6



- 1 Conductor: solid
- 2 Insulation: cross-linked polymer, halogen-free
- 3 Drain wire: copper, Ø 0.8 mm
- 4 Inner covering: plastic tape, halogen-free
- 5 Shielding: Al-laminated plastic foil, halogen-free
- 6 Inner sheath: FRNC/LS0H
- 7 Armouring: galvanised steel wire band
- 8 Sheath: FRNC/LS0H



### Description

Cables with intrinsic fire resistance are installed in all areas that require special protection of people and equipment against fire and fire damages and where strict security requirements must be fulfilled. Suitable for indoor applications. For outdoor applications, protection must be provided against exposure to direct sunlight. The steel wire braiding serves as mechanical protection. The fire alarm cables correspond to the demands of System Circuit Integrity E30-E90\* in accordance with DIN 4102-12. System Circuit Integrity is guaranteed at an operating voltage up to 110V.

Permitted operating temperature at conductor of +70°C.

Suitable according to VKF fire protection guideline in escape routes and in tunnels according to Astra guideline 13022.

### Construction

Conductor	Bare copper, solid, 0.8 mm diameter, VDE 0815
Insulation	Fire-resistant, cross-linked, high-performance Keram special compound, EN 50290-2-36
Core colours	VDE 0815
Shielding	Al-laminated tape with copper drain wire Ø 0.8 mm
Inner sheath	Flame retardant polyolefin compound, VDE 0819-107, EN 50290-2-27 and VDE 0250-214 "HM2"
Armouring (rodent protection)	Galvanised steel wire braid
Outer sheath material	Flame retardant polyolefin compound VDE 0819-107, EN 50290-2-27 and VDE 0250-214 "HM2"
Outer sheath colour	red

### General properties

Circuit integrity	FE 180
System circuit integrity	E90
Installation temperature	-5 °C - +50 °C
Operating temperature	-30 °C - +70 °C

## Electrical properties

Capacitive coupling 0,8 mm, 100m @ 800Hz	200 pF/km
Maximum loop resistance 0,8 mm	73.2 Ω/km
Minimum insulation resistance	100 MΩ x km
operating capacity, 1km @ 800Hz	120 nF/km
peak voltage	225 V
Test voltage 50Hz, core/core	500 V
Test voltage 50Hz, core/screen	2,000 V

## Mechanical properties

Minimal crush resistance / 10cm	1,000 N
Minimum bending during installation (multi core)	7.5 x D
Minimum bending radius permanent (multi core)	7.5 x D

## Standards

Circuit integrity	IEC 60331-11/-21 (180 minutes), VDE 0472-814 (FE180), IEC 60331-1 (120 minutes), IEC 60331-2 (120 minutes), EN 50200 (PH120 minutes), VDE 0482-200 (PH120), AREI-RGIE Art.104-FR1
System circuit integrity	DIN 4102-12, AREI-RGIE Art.104-FR2
Reaction to fire	EN 13501-6
Euroclass	B2 <sub>ca</sub>
Smoke density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2, AREI-RGIE Art.104-SD
Zero halogen no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2, AREI-RGIE Art.104-SA
Flame propagation	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2, AREI-RGIE Art.104-F1
Flame spread	IEC 60332-3-22/-24, EN 60332-3-22/-24, VDE 0482-332-3-22/-24, AREI-RGIE Art.104-F2

## Note

System Circuit Integrity dependent on installation method.

## Versions

Material number	Product	Reaction to fire	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Packing unit	GTIN / EAN
19388400BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 1x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	8.8	15	100	0.256	by the metre	40393910230215
18811900BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 2x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	9.3	25	125	0.295	by the metre	40393910230406
18812000BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 4x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	12.2	45	192	0.437	by the metre	40393910230413
18812700BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 8x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	18.4	85	419	0.964	by the metre	40393910230420
18812800BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 12x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	19.3	126	490	1.070	by the metre	40393910230437
18812900BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 20x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	23.3	206	680	1.412	by the metre	40393910230444

Material number	Product	Reaction to fire	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Packing unit	GTIN / EAN
18834600BZ	JE-H(S)t)HRH...Bd FE180 E30-E90 fire alarm 32x2x0.8 mm	B2 <sub>ca</sub> -s1a,d1,a1	26.9	326	913	1.806	by the metre	40393910230475

Additional dimensions available on request.

Subject to technical modification

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