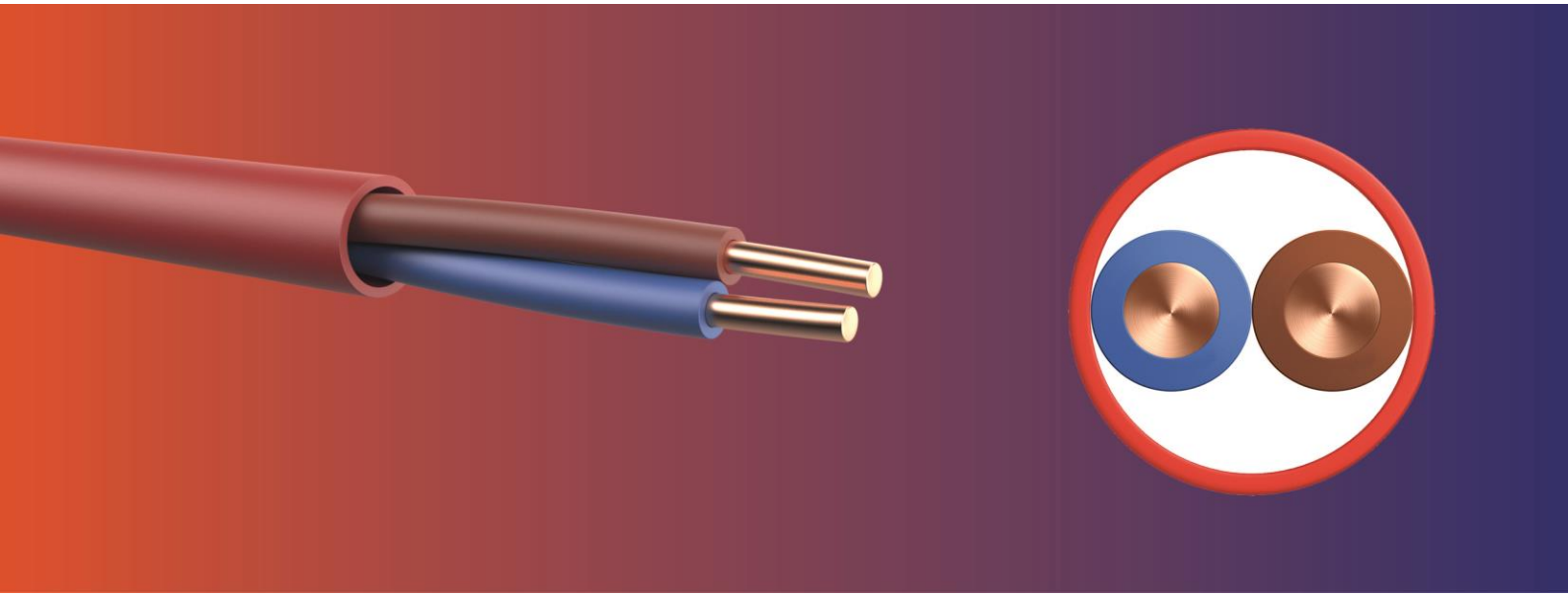
CIRCUIT INTEGRITY CABLES

FR-SIR-U 90 / Signal- and communication cables

BETAflam® Fire alarm cables screened 300/500 V, circuit integrity acc. to BS 6387 or IEC 60331, LSOH



Application

Unshielded fire alarm cable 300/500 V for fixed installation in cable systems with the highest fire performance and circuit integrity requirements. For high temperature conditions and extra long expected lifetime.
Typical applications:
- Fire alarm circuits
- Fire detection circuits
- Emergency signal/control circuits
- Voice alarm systems
- Emergency lighting system etc.

Especially recommended in areas where human and animal life as well as valuable property are exposed to high risk in case of fire.

Construction

Conductor	Bare annealed soild copper, acc. to VDE 0295 / IEC 60228, class 1 or 2
Insulation	BETAflam® SIR silicone rubber, cross-linked
Core colour	See below
Sheath	BETAflam® mineral copolymer
Sheath colour	Red

Advantages

- High safety standard: BS 6387 C.W.Z, fully tested and certified by LPCB
- High safety standard
- Fire tested by Electrosuisse
- Low Smoke Zero Halogen (LSOH)
- RoHS and REACH compliant
- Operating temperature 90 °C
- High LOI
- Space saving installation due to small outer diameter
- Very long lifetime
- Made in Switzerland

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Electrical properties

Rated value	U_0 / U	300 / 500 V AC
Test voltage	Core/core	2.0 kV, 50 Hz / 5 min.

Thermal properties

Max. operating temperature	fixed installation	+90°C
Min. ambient temperature	fixed installation	-30°C
Max. ambient temperature	during laying	+70°C
Min. ambient temperature	during laying	-5°C
Max. short circuit temperature		+250°C (max. 5s)

Mechanical properties

Bending radius	during laying	≥ 8 x Ø
Bending radius	fixed installation	≥ 6 x Ø

Material properties / Standards

Halogen free	IEC 60754-1; BS EN 60754-1
No corrosive gases	IEC 60754-2, BS EN 60754-2
No Toxicity of gases	Def Stan 02-713
Minimal smoke density	IEC 61034-1 & -2; BS EN 61034-1 & -2
Flame retardant	IEC 60332-1-2
No flame spread on bunched cables	IEC 60332-3-22, -24 (Cat. A & C); BS EN 60332-3-22, -24 (Cat. A & C)
Circuit integrity	IEC 60331-2, -21
Circuit integrity	BS 6387 C.W.Z.

Approvals

LPCB - BRE Group
www.redbooklive.com

Additional information

Laying conditions:

	Also for electrical installations outside of cable ducts.
	Not recommended for permanently high humid ambient.
	Shield from direct sunlight.

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Construction Cross-sec. [n x mm2]	Color code	Conductor class	Core-Ø [mm]	Outer-Ø [mm]	Weight [kg/km]	Fire load [kWh/m]	Part no.
2 × 1.5*	bl,br	1	2.75	7.6	76.41	0.202	306963
2 × 1.5*	sw,ws	1	2.75	7.6	76.41	0.202	309489
2 × 1.5*	rt,sw	1	2.75	7.6	76.41	0.202	309703
2 × 2.5	bl,br	1	3.2	8.7	104	0.252	306964
2 × 2.5	sw,ws	1	3.2	8.7	104	0.252	312115
2 × 4*	sw,ws	2	4.2	11.0	181	0.455	317642

* Not C.W.Z., but according to IEC 60331-2 and -21

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