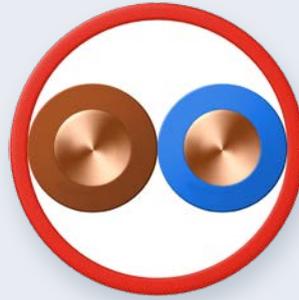
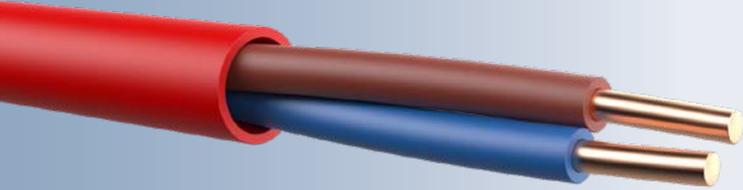


## FR-SIR-U 90 Fire alarm cable – unscreened

BETAflam® Fire alarm cable, 300 / 500 V, circuit integrity acc. to IEC 60331, LSOH



### Advantages

- High safety standard
- Fire tested by Electrosuisse
- Low Smoke Zero Halogen (LSOH)
- Operating temperature up to +90 °C
- In compliance with RoHS and REACH

### Application

BETAflam® FR-SIR-U 90 is an unshielded Fire Alarm Cable with excellent fire performance in case of fire and high circuit integrity characteristics.

#### Typical applications:

- Fire alarm circuits
- Fire detection circuits
- Emergency Control Circuits
- Voice Alarm Systems
- Emergency Lighting Systems
- 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 solid cooper, acc. IEC 60228 class 1 for 4 mm <sup>2</sup> acc. to IEC 60228 class 2 |
| ■ Insulation          | BETAflam® SIR silicone rubber, cross-linked  |
| ■ Core identification | See table (further colours on request)   |
| ■ Sheath              | BETAflam® mineral copolymer see table (further colours on request)                                 |

### Electrical characteristics

Rated voltage	U <sub>0</sub> /U 300 / 500 V
Test voltage	2000 V

### Thermal characteristics

Operation temperature	-30 °C to +90 °C
Laying temperature	-5 °C to +70 °C
Short circuit temperature (temperature peak < 5 s)	+250 °C

### Bending radius

during laying	> 8 × outer Ø
fixed installed	> 6 × outer Ø

### Laying conditions

For fixed indoor installation in trays, ladders, ducts and other common cable installation systems. Outdoors only when installed in dry and water-proofed cable laying systems, protected from direct sunlight and other external impacts.

### Standards / Material properties / Fire performance

- Halogen free: IEC 60754-1; BS EN 60754-1
- No corrosive gases: IEC 60754-2; BS EN 60754-2
- No toxic gases: NES 02-713
- Low 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)
- Circuit integrity: IEC 60331-11/-21

No. of cores	Cross section nom.	Min. no. of conductor strands	Conductor Ø nom.	Insulation thickness nom.	Core Ø nom.	Sheath thickness	Cable Ø nom.	Weight approx.	Nom. Cap. At 800 Hz core/core	Fire load	Order no.			
											mm <sup>2</sup>	mm	mm	mm
2C	1.5	1	1.38	0.7	2.8	1.2	7.6	78	75	0.20	<b>RD</b>	<b>309703</b>	<b>306963</b>	<b>309489</b>
	1.5	1	1.38	0.7	2.8	1.2	7.6	78	75	0.20	<b>WH</b>	*	*	*
	2.5	1	1.74	0.7	3.2	1.2	8.7	110	80	0.25	<b>RD</b>	*	<b>306964</b>	<b>312115</b>
	2.5	1	1.74	0.7	3.2	1.2	8.7	110	80	0.25	<b>WH</b>	*	*	*
	4	7	2.6	0.8	4.2	1.3	10.9				<b>GY</b>	*	<b>308506</b>	*

● ● ● ● ● ●  
 BK+RD BU+BN BK+WH

\* upon request