

**AFUMEX® SILVER | 0.6/1 kV | CLASS 2**
**FIRESTOP FS110 STRANDED CONDUCTOR SDI**

**Cable description**

Fire rated, single core LSOH cable suitable for installation wiring.

**Application**

- Power supply to essential circuits such as mains, sub mains in areas where circuit integrity is essential in the event of a fire.
- Classified (WS52W) meaning the scope of testing is designed to confirm performance when installed in a wiring system.
- Circuit integrity up to an extreme temperature of 1050 °C at the end of 2 hours.
- LSZH – Suitable for confined and high people density areas such as underground transport tunnels, airports and public buildings.

**Approvals/Qualifications**

NATA accredited facility Qualification (third party)  
AS/NZS 5000.1.  
AS/NZS 3013 WS52W

**Behaviour in flame and fire**

Fire performance rating: AS/NZS 3013 WS52W  
AS/NZS 4507 CI-3  
Flame propagation: IEC 60332-3 cat A  
IEC 60332-1  
Halogen free/Low smoke emission:  
AS/NZS 4507

**Temperature range**

Maximum operating temperature: +110 °C  
Minimum operating temperature: -25 °C

**Flexibility**

Minimum bending radius:  
Installed cables: 10D  
During installation: 12D

**Resistance to**

Fire: 2 hrs  
Chemical exposure: Occasional  
Mechanical impact: Moderate  
Water exposure: Spray  
Solar radiation and weather exposure: UV stabilised

**Cable design**

Conductor: Stranded plain annealed copper (class 2)  
Fire barrier: Mica glass tape  
Insulation: X-HF-110 (LSOH)  
Insulation colour: Natural  
Sheath: Black, HFS-110-TP (LSOH)

**Installation conditions**

In free air  
In duct  
Internal wiring  
External building

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## Physical &amp; electrical characteristics

## FIRESTOP FS110 STRANDED CONDUCTOR SDI

Product code	Number of cores	Nominal conductor area mm <sup>2</sup>	Approx. overall diameter mm	Approx. mass kg/100 m	AS/NZS 3013 WS Rating
101CFS110BK	1C	10	12.0	21	WS52W
161CFS110BK	1C	16	13.0	28	WS52W
251CFS110BK	1C	25	15.0	40	WS52W
351CFS110BK	1C	35	16.0	49	WS52W
501CFS110BK	1C	50	17.2	63	WS52W
701CFS110BK	1C	70	18.9	82	WS52W

Bigger sizes available on request only.

## CLASS 2 | FS110 SINGLE CORE

Size	Resistance		Reactance at (ohm/km)		Voltage drop (mV/A.m)		
	DC @ 20°C	AC @ 110°C	50Hz Trefoil	50Hz Flat Touching	Three phase		Single phase
					Lay flat touching	Trefoil touching	
10	1.83	2.48	0.114	0.129	4.30	4.30	4.97
16	1.15	1.56	0.106	0.122	2.71	2.70	3.12
25	0.727	0.984	0.102	0.118	1.72	1.72	1.99
35	0.524	0.71	0.0982	0.113	1.25	1.24	1.43
50	0.387	0.524	0.0924	0.108	0.929	0.924	1.07
70	0.268	0.363	0.0893	0.104	0.657	0.650	0.751
95	0.193	0.262	0.0868	0.102	0.491	0.481	0.555
120	0.153	0.208	0.0844	0.0996	0.403	0.392	0.453
150	0.124	0.169	0.0844	0.0996	0.344	0.331	0.382
185	0.0991	0.136	0.0835	0.0988	0.296	0.280	0.323
240	0.0754	0.105	0.0818	0.0970	0.252	0.235	0.271
300	0.0601	0.0846	0.0809	0.0961	0.227	0.208	0.240
400	0.047	0.0677	0.0802	0.0955	0.208	0.187	0.216
500	0.0366	0.0547	0.0796	0.0948	0.195	0.172	0.199
630	0.0283	0.0448	0.0787	0.0940	0.184	0.160	0.185

**Physical & electrical characteristics**

**CURRENT CARRYING CAPACITY\* | CLASS 2 | FS110 SINGLE CORE**

Nominal conductor area mm <sup>2</sup>	Unenclosed			Enclosed			
	Spaced A	Spaced from surface A	Touching surface A	Metallic wiring enclosure in air A	Underground duct one duct A	Underground duct two duct A	Underground duct three duct A
<b>TWO SINGLE CORE</b>							
10	103	99	81	78	88	97	-
16	137	131	107	104	115	127	-
25	183	175	143	137	148	163	-
35	225	214	176	165	177	195	-
50	276	261	215	205	214	236	-
70	349	328	272	255	262	288	-
95	434	406	339	321	321	352	-
120	505	471	394	369	366	400	-
150	581	540	454	430	420	448	-
185	673	624	527	493	477	517	-
240	806	743	630	594	561	600	-
300	934	857	730	-	648	694	-
400	1094	998	853	-	738	790	-
500	1278	1155	990	-	837	921	-
630	1498	1334	1146	-	973	1045	-
<b>THREE SINGLE CORE</b>							
10	99	86	81	71	77	-	88
16	132	114	107	93	99	-	115
25	177	153	143	125	130	-	148
35	218	188	176	151	155	-	176
50	267	230	215	182	184	-	212
70	339	291	272	234	230	-	259
95	422	363	339	285	277	-	315
120	492	422	394	337	322	-	357
150	565	486	453	382	362	-	400
185	656	564	526	449	415	-	461
240	786	674	629	548	492	-	533
300	912	780	727	626	556	-	617
400	1069	910	847	718	631	-	700
500	1248	1053	981	865	736	-	815
630	1462	1217	1132	983	827	-	920

\* Based on 110°C conductor temperature, 40°C ambient air temperature and where applicable, burial depth of 0.5 m, soil temperature of 25°C and soil thermal resistivity of 1.2°C.m/W. Refer to AS/NZS 3008.1.1:2017 for other installation conditions.