PRODUCT DATA SHEET

2 Core
2HR Fire Rated Cable

FEATURES



- ✓ 2HR Fire Rated
- ✓ ≤1.00mm = WS51W. ≥1.50mm = WS52W
- ✓ PVC Free - Low Smoke Zero Halogen (LSZH) - certified by Bureau Veritas & GECA
- ✓ ActivFire certified
- ✓ RCM / Global Mark certified
- ✓ Green Building Code of Australia / Green Star compliant
- ✓ 110°C continuous operation
- ✓ 450/750V voltage rating
- ✓ Fire & Mechanical Protection - AS/NZS 3013, AS/NZS 4507 (RHE-3)
- ✓ Cable Construction - AS/NZS 5000.2
- ✓ ACMA Compliance - AS/CA S008
- ✓ AS 1670:2018 Markings
- ✓ 8-10 twists per meter
- ✓ Smallest diameter on the market
- ✓ Flexible, easy to strip, install & terminate
- ✓ ≤1.50mm: 8-10 twists per meter, 2.50mm: 6 twists per meter, 4.00mm: 4 twists per meter

PRODUCT DESCRIPTION

FireSense 2HR Fire Rated Fire Alarm cables have been specifically designed for use with Australian Fire Alarm, EWIS & Fan Control applications. FireSense 2Hr Fire Rated 2 Core Cables are used for ELV applications, essential services including EWIS and 1668 applications. Cables have a reduced outside diameter which allows 2 cables to fit within a single conduit providing ease of installation.

Independently tested and approved to the requirements of AS/NZS 3013 for both fire and mechanical cable properties, these cables are certified 2 hour fire rated, meet the stringent impact and cutting test requirements of AS/NZS 3013, and are flexible, easy to strip, install and terminate, saving valuable time on site.

Environmentally friendly meeting the Green Building Code of Australia / Green Star requirements, all FireSense 2HR Fire Rated cables are made from LSZH materials & have third party PVC Free Certification from Bureau Veritas and Good Environmental Choices Australia (GECA).

FireSense cables are the only FULL range of ActivFire certified cable in Australia.

It is recommended that FireSense stainless steel cable ties be used for fixing cable to tray every 1.0 metre when mounted horizontally and every 0.6 metres when mounted vertically. When fixing FireSense fire rated cables to catenary wire our manufacturer's recommendation is as follows:

If cable bunch is ≥ 25mm diameter cables should be supported with stainless steel ties every 300mm.
If cable bunch is < 25mm diameter cables should be supported with stainless steel ties every 600mm.

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TECHNICAL SPECIFICATIONS

Conductors	Stranded Annealed Copper
Flame Barrier	Mica Tape
Insulation	Flame Retardant, Low Smoke, Zero Halogen (X-HF-110)
Sheath	Flame Retardant, Low Smoke, Zero Halogen (HFS-110-TP)*
Voltage Rating	450/750V
Operating Temperature	-25°C to +110°C
Insulation Colour	Red, White
Sheath Colour	Red
Min Bending Radius	10 x Cable Diameter
AS1670.2018 Sheath Marking	ELV FIRE
Weight per metre (kg)	**FR-0.75-2C** - 0.087
	FR-1.00-2C - 0.124
	FR-1.50-2C - 0.132
	FR-2.50-2C - 0.196
	FR-4.00-2C - 0.239
	FR-6.00-2C - 0.343

* Please note: LSZH HFS-110-TP sheath material is UV stabilised but red colour may be subject to fading over time if exposed to direct sunlight.

ELECTRICAL CHARACTERISTICS

Part Number	DC Resistance (Ω / km)	Capacitance (pF/m) Red / White	Inductance (uH/m)
FR-0.75-2C	25.3	44	0.87
FR-1.00-2C	21.2	46	0.80
FR-1.50-2C	13.6	48	0.75
FR-2.50-2C	7.41	53	0.71
FR-4.00-2C	4.61	57	0.68
FR-6.00-2C	3.10	60	0.67

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STANDARDS COMPLIANCE

Fire & Mechanical	AS/NZS 3013
Cable Construction	AS/NZS 5000.2
ACMA Compliance	AS/CA S008
Conductors	AS/NZS 1125
Insulation	AS/NZS 3808
Sheath	AS/NZS 3808
Cable	AS/CA S008
Cable Performance	AS/NZS 4507 (RHE-3)
Vertical Flame Spread	AS/NZS 1660.5.1 (Section 6 - Category C - AS/NZS IEC 60332-3-24)
Smoke Density	AS/NZS 1660.5.2, AS/NZS IEC 61034
Halogen Gas	AS/NZS 1660.5.3, AS/NZS IEC 60754-1
Acidity of Gases	AS/NZS 1660.5.4, AS/NZS IEC 60754-2
Vertical Flame Propogation	AS/NZS 1660.5.6, AS/NZS IEC 60332-1

ORDERING INFORMATION

Part Number	No. of Cores	Cross Section (mm^2)	Copper Wire Diameter (mm)	Approx Overall Diameter (mm)	AS/NZS 3013 Classification	Drum Length
FR-0.75-2C	2	0.75	0.37	9.8	WS51W	250m, 500m
FR-1.00-2C	2	1.00	0.42	10.0	WS51W	250m, 500m
FR-1.50-2C	2	1.50	0.52	10.3	WS52W	250m, 500m
FR-2.50-2C	2	2.50	0.67	11.8	WS52W	250m, 500m
FR-4.00-2C	2	4.00	0.85	13.7	WS52W	Cut to length
FR-6.00-2C	2	6.00	1.04	16.2	WS52W	Cut to length

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APPROVALS & CERTIFICATION

Part Number	AS/NZS 3013			AS/NZS 5000.2	
	Rating	Certificate No.	Issuer	Certificate No.	Issuer
FR-0.75-2C	WS51W	FAS 240027 R1.6	Warrington Fire	GMA-511152	Global Mark Pty Ltd
FR-1.00-2C	WS51W	FAS 240027 R1.6	Warrington Fire	GMA-511152	Global Mark Pty Ltd
FR-1.50-2C	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511152	Global Mark Pty Ltd
FR-2.50-2C	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511152	Global Mark Pty Ltd
FR-4.00-2C	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511152	Global Mark Pty Ltd
FR-6.00-2C	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511152	Global Mark Pty Ltd

ActivFire Listing Number	afp-2417		
RCM Responsible Supplier	E6560	Level 3	GMA-511152
Bureau Veritas GECA Certificate Number	3407		
Bureau Veritas PVC Free Certificate Number	2835		

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CLASSIFICATION

AS/NZS 3013 is a classification system which defines the performance of a Wiring System (WS). The classification system prefix is 'WS' followed by two numerals and a supplementary letter W. ie

AS/NZS 3013 Fire Rated Cable Technical Information

Classification of the fire and mechanical performance of wiring system elements:

AS/NZS 3013 is a classification system which defines the performance of a Wiring System (WS). The classification system prefix is 'WS' followed by two numerals and a supplementary letter W. ie.

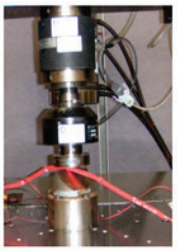
WS	5	2	W

1	15 minutes
2	30 minutes
3	60 minutes
4	90 minutes
5	120 minutes





	Impact Test (J)	Cutting Test (kN)	Level of Protection
1	2.5	0.3	Light
2	15	1.0	Moderate
3	50	5.0	Heavy
4	500	5.0	Very Heavy
5	5000	5.0	Extremely Heavy



The 'W' suffix denotes the wiring system's capability to maintaining circuit integrity when subjected to water spray immediately following a fire.

Cables are subjected to fire at 1050°C for 120 minutes, then water sprayed for a further 3 minutes.



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