


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.



Cable Accessories



Stainless Steel Ties



Cable Tie Gun

Part Number	Length	Width	Quantity per pack	SS Grade
SST-200	200mm	4.6mm	100	AISI.304
SST-360	360mm	4.6mm	100	AISI.304
SST-200C	200mm	4.6mm	100	AISI.304
SST-360C	360mm	4.6mm	100	AISI.304
SST-200-316	200mm	4.6mm	100	AISI.316
SST-360-316	360mm	4.6mm	100	AISI.316



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Fire Alarm Detection Cable



TPS Cables

2 Core Flat



2 Core Flat (White Stripe)



2 Core Twisted



2 Core Twisted & Screened



FireSense manufactures our own complete range of red TPS cables, specifically designed for use with Fire Alarm and EWIS systems.

Our TPS cables are ideally suited for cabling from the Fire Alarm, OWS and EWIS panels to detectors, speakers, horns, strobes, field modules, etc. They are double insulated and have an 'easy tear' outer sheath making these cables easy to strip and terminate, saving valuable installation time.

In addition to the basic flat cable design, a white stripe speaker cable is available to allow the installer to easily distinguish between LV and ELV circuits, as per AS 1670.1.2018.

A twisted TPS cable is available and is ideal for use with addressable fire panels, detectors and devices. It is available in both screened and unscreened. All FireSense TPS cables are made to Green Building Council of Australia PVC Best Practice Guidelines and are certified by Bureau Veritas. They also comply with AS/CA S008 as required by AS 1670.1.2018.

FireSense also manufactures selected TPS cables which are completely PVC Free utilising low smoke zero halogen (LSZH) materials. These cables are ideally suited for Green Building applications, such as tunnels, etc.

All FireSense cables have been tested, approved and are marked with our ASA Certification Number & RCM logo, as per the 'Building Wire' requirements of AS/NZS 4417.

TPS Cable Features:

- Compliant ELV/LV markings, as per AS 1670.1.2018
- Mechanical protection – WSX1 (AS 1670.1.2018)
- Red Sheath for Fire Alarm applications
- Easy to strip & terminate
- Double sheathed
- Metre markings

Approvals:

- ✓ AS 1670.1.2018
- ✓ AS/NZS 3808
- ✓ AS/CA S008
- ✓ AS/NZS 3013
- ✓ ActivFire Certified
- ✓ PVC Best Practice Certified
- ✓ AS/NZS 4417 - RCM Certification

Part Number	No. of Cores	Cross Section	Conductor Class	Greenstar Rating	Core Layout
PVC BEST PRACTICE TPS					
TPSLD-0.75-2CW	2	0.75mm ²	7 / 0.37		Flat
TPSLD-1.00-2CW	2	1.00mm ²	7 / 0.42		Flat
TPSLD-1.50-2C	2	1.50mm ²	7 / 0.52		Flat
TPSLD-1.50-2CW	2	1.50mm ²	7 / 0.52		Flat
TPS-1.50-2CT	2	1.50mm ²	7 / 0.52		Twisted
TPS-1.50-2CTS	2	1.50mm ²	7 / 0.52		Twisted & Screened
HALOGEN FREE TPS: (LSZH)					
TPSHF-1.50-2C	2	1.50mm ²	7 / 0.52		Flat
TPSHF-1.50-2CT	2	1.50mm ²	7 / 0.52		Twisted
TPSHF-1.50-2CW	2	1.50mm ²	7 / 0.52		Flat

2HR Fire Rated Control Cables

2 Core



2 Core White Stripe



3 Core



4 Core



6 Core



10 Core (5 Twisted Pairs)



10 Core



FireSense has designed, developed, approved and manufactured our own range of fire rated cables, specifically for use with Fire Alarm and EWIS Systems.

Our cables have a reduced outer diameter making installation in conduits, confined panel spaces and field ancillaries easier. The cable's semi-rigid feature also allows for easy and neat placement on cable trays.

All FireSense fire rated cables have a natural twist, making them ideally suited for use with addressable fire systems.

A white stripe cable is also available for LV speaker circuits, as per AS 1670.1.2018.

Our fire rated cables have been designed and approved to Australian Standard AS/NZS 3013:2005 by independent Australian testing labs for both fire and mechanical protection. They are also approved to AS/NZS 5000.2 electrical standards and meet all requirements of AS/CA S008.

Cable compliance with AS/NZS 3013 and AS/CA S008 is a mandatory requirement of AS 1670.1, AS 1670.4, AS/NZS 1668, AS 4214 and AS 2118.

All FireSense cables have been tested, approved and are marked with our ASA Certification Number & RCM logo, as per the 'Building Wire' requirements of AS/NZS 4417.

Part Number	No. of Cores	Cross Section	Copper Wire Diameter	Approximate Overall Diameter	Greenstar Rating	AS/NZS 3013 Classification
FR-0.75-2C	2	0.75mm ²	0.37mm	9.8mm		WS51W
FR-0.75-2CW	2	0.75mm ²	0.37mm	9.8mm		WS51W
FR-1.00-2C	2	1.00mm ²	0.42mm	10.0mm		WS51W
FR-1.00-2CW	2	1.00mm ²	0.42mm	10.0mm		WS51W
FR-1.50-2C	2	1.50mm ²	0.52mm	10.3mm		WS52W
FR-1.50-2CW	2	1.50mm ²	0.52mm	10.3mm		WS52W
FR-2.50-2C	2	2.50mm ²	0.67mm	11.8mm		WS52W
FR-4.00-2C	2	4.00mm ²	0.85mm	13.7mm		WS52W
FR-6.00-2C	2	6.00mm ²	1.04mm	16.2mm		WS52W
FR-0.75-3C	3	0.75mm ²	0.37mm	10.8mm		WS51W
FR-1.50-4C	4	1.50mm ²	0.52mm	12.0mm	WS52W	
FR-1.50-6C	6	1.50mm ²	0.52mm	16.0mm	WS52W	
FR-0.75-10C	10	0.75mm ²	0.37mm	24.0mm	WS52W	
FR-1.50-10C	10	1.50mm ²	0.52mm	18.8mm	WS52W	

2HR Fire Rated Screened Control Cables

2 Core Screened



4 Core Screened



6 Core Screened



8 Core Screened



2HR FR Cable Features:

- 2HR Fire Rated
- 110°C Continuous Operation
- 450/750V Rated
- Low Smoke Zero Halogen – 100% PVC Free
- Flame retardant
- Smallest outer diameter
- Easy to strip & terminate

Approvals:

- ✓ AS/NZS 3013
- ✓ AS/NZS 5000.2
- ✓ AS/CA S008
- ✓ AS1670.1.2018
- ✓ ActivFire Certified
- ✓ AS/NZS 4417 - RCM Certification

Part Number	No. of Cores	Cross Section	Copper Wire Diameter	Approximate Overall Diameter	Greenstar Rating	AS/NZS 3013 Classification
FR-0.75-2CS	2	0.75mm ²	0.37	10.3mm		WS51W
FR-1.50-2CS	2	1.50mm ²	0.52	10.5mm		WS52W
FR-1.50-4CS	4	1.50mm ²	0.52	13.8mm		WS52W
FR-0.75-6CS	6	0.75mm ²	0.37	15.5mm		WS51W
FR-0.75-8CS	8	0.75mm ²	0.37	15.8mm		WS51W

