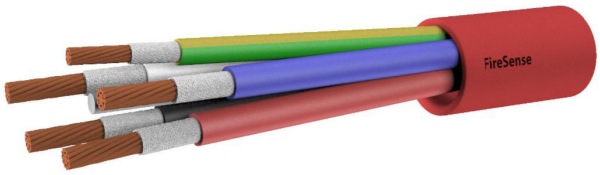
PRODUCT DATA SHEET

4 Core + Earth
2HR Fire Rated Cable

FEATURES

- ✓ 2HR Fire Rated
- ✓ 0.6/1kV insulation rating
- ✓ 110°C conductor temp
- ✓ AS/NZS 3013 – WS52W
- ✓ AS/NZS 5000.1
- ✓ AS/ACIF S008
- ✓ RCM Certified
- ✓ ActivFire Certified
- ✓ Low smoke zero halogen
- ✓ Flame retardant
- ✓ Flexible class 6 conductors (10-50mm)



PRODUCT DESCRIPTION

FireSense Fire Rated cables have been specifically designed for use within the Fire Alarm and Mechanical/Electrical industries. FireSense Fire Rated Cables are constructed from the highest quality cross linked polymers available and are designed to be easy to install, strip and terminate.

FireSense Fire Rated Cables have been independently tested and approved by EXOVA/Warringtonfire to the exacting requirements of AS/NZS 3013 for both fire and mechanical cable properties. All FireSense cables are certified 2 hour Fire Rated. FireSense Fire Rated Cables have also been tested and approved to electrical standards AS/NZS 5000.1 and communication/wiring standard AS/ACIF S008 by respective industry testing authorities.

FireSense cables are manufactured using 100% pure, annealed, 7 strand copper conductors for ease of termination while achieving the highest possible electrical performance. FireSense's highly specialised insulation and outer sheath materials meet the stringent Impact and Cutting test requirements of AS/NZS 3013 yet allow for ease of stripping and cable placement on trays saving valuable time on site.

FireSense 4C+E conductors ≥ 10mm^2 use Class 6 flexible conductors making for a more flexible cable, which is much easier to install.

It is recommended that FireSense stainless steel cable ties be used for fixing cable to tray every 1.0 metre when mounted horizontal 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.

NSW
18-20 Brookhollow Ave
NORWEST 2153
02 8850 2888
sales@firesense.com.au

VIC
Unit 4, 297 Ingles St
PORT MELBOURNE 3207
03 9646 4557
salesvic@firesense.com.au

QLD
Unit 2, 225 Queensport Rd North
MURARRIE 4172
07 3890 8842
salesqld@firesense.com.au

www.firesense.com.au

PRODUCT DATA SHEET

4 Core + Earth
2HR Fire Rated Cable

ORDERING INFORMATION

Part Number	No. of Cores	Cross Section (mm²) (Conductors)	Cross Section (mm²) (Earth Conductors)	Conductor Class	Overall Diameter (mm)	Operating Temp (°C)	AS/NZS 3013 Rating
FR-6.00-4C+E	4 + E	6	2.5	Class 2	20	-25 to +110	WS52W
FR-10-4C+E	4 + E	10	4	Class 6	23	-25 to +110	WS52W
FR-16-4C+E	4 + E	16	6	Class 6	27	-25 to +110	WS52W
FR-25-4C+E	4 + E	25	6	Class 6	31	-25 to +110	WS52W
FR-35-4C+E	4 + E	35	10	Class 6	36	-25 to +110	WS52W
FR-50-4C+E	4 + E	50	10	Class 6	42	-25 to +110	WS52W

**FR-70-4C+E can be available upon request (MOQ – 1000m)*

ELECTRICAL CHARACTERISTICS

Part Number	DC Resistance (Ω / km)	AC Resistance @ 50Hz (Ω / Km at °C) As per AS3008 Table 35				Current Carrying Capacity Unenclosed (Amps) As per AS3008 Table 15			3 Phase Voltage Drop @ 50Hz (mV/A.m at °C) As per AS3008 Table 42			
	20°C	45°C	75°C	90°C	110°C	Spaced	Touching	Exposed	45°C	75°C	90°C	110°C
FR-6.00-4C+E	3.08	3.38	3.75	3.93	4.17	59	56	50	5.86	6.49	6.8	7.22
FR-10-4C+E	1.91	2.01	2.23	2.33	2.48	80	75	68	3.49	3.86	4.05	4.29
FR-16-4C+E	1.21	1.26	1.40	1.47	1.56	106	99	89	2.19	2.43	2.55	2.70
FR-25-4C+E	0.780	0.799	0.884	0.927	0.984	140	131	118	1.39	1.54	1.61	1.71
FR-35-4C+E	0.554	0.576	0.638	0.669	0.710	173	162	145	1.01	1.11	1.17	1.24
FR-50-4C+E	0.386	0.426	0.471	0.494	0.524	218	204	182	0.751	0.829	0.868	0.920

CONSTRUCTION

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)
Operating Temperature	-25°C to +110°C
Insulation Colour	Red, Blue, White, Black, Green/Yellow
Sheath Colour	Red
Min Bending Radius	10 x Cable Diameter

NSW
18-20 Brookhollow Ave
NORWEST 2153
02 8850 2888
sales@firesense.com.au

VIC
Unit 4, 297 Ingles St
PORT MELBOURNE 3207
03 9646 4557
salesvic@firesense.com.au

QLD
Unit 2, 225 Queensport Rd North
MURARRIE 4172
07 3890 8842
salesqld@firesense.com.au

www.firesense.com.au

PRODUCT DATA SHEET

4 Core + Earth
2HR Fire Rated Cable

WEIGHT PER METRE

Please note: the below measurements are approximate only and do not account for the weight of the drum.

Cable	Approx weight per metre (kg)
FR-6.00-4C+E	0.571
FR-10-4C+E	0.807
FR-16-4C+E	1.240
FR-25-4C+E	1.672
FR-35-4C+E	2.289
FR-50-4C+E	3.167

STANDARDS COMPLIANCE

Fire & Mechanical	AS/NZS 3013 Appendix A,B,D,E
Conductors	AS/NZS 1125 Class 2/Class 6
Cable Construction	AS/NZS 5000.1
Vertical Flame Speed	AS/NZS 1660.5.1
Smoke Density	AS/NZS 1660.5.2, IEC 61034
Halogen Gas	AS/NZS 1660.5.3, IEC 60754-1&2
Acidity of Gases	AS/NZS 1660.5.4
Vertical Flame Propagation	AS/NZS 1660.5.6, IEC 60332-1, IEC 60332-3-24
ACMA Compliance	AS/ACIF S008

APPROVALS

Part Number	AS/NZS 3013			AS/NZS 5000.1	
	Rating	Certificate No.	Issuer	Certificate No.	Issuer
FR-6.00-4C+E	WS52W	SFC27760B.04	EXOVA/Warringtonfire	ASA-181008-EA	ASA
FR-10-4C+E	WS52W	SFC27760B.04	EXOVA/Warringtonfire	ASA-181008-EA	ASA
FR-16-4C+E	WS52W	SFC27760B.04	EXOVA/Warringtonfire	ASA-181008-EA	ASA
FR-25-4C+E	WS52W	SFC27760B.04	EXOVA/Warringtonfire	ASA-181008-EA	ASA
FR-35-4C+E	WS52W	SFC27760B.04	EXOVA/Warringtonfire	ASA-181008-EA	ASA
FR-50-4C+E	WS52W	SFC27760B.04	EXOVA/Warringtonfire	ASA-181008-EA	ASA

ActivFire Listing No.	afp-2417

RCM Responsible Supplier	E6560	Level 3	ASA-181008-EA

NSW
18-20 Brookhollow Ave
NORWEST 2153
02 8850 2888
sales@firesense.com.au

VIC
Unit 4, 297 Ingles St
PORT MELBOURNE 3207
03 9646 4557
salesvic@firesense.com.au

QLD
Unit 2, 225 Queensport Rd North
MURARRIE 4172
07 3890 8842
salesqld@firesense.com.au

www.firesense.com.au

PRODUCT DATA SHEET

4 Core + Earth
2HR Fire Rated Cable

CLASSIFICATION

AS3013 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

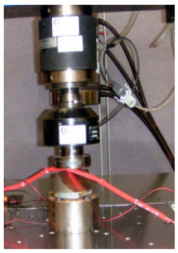
Classification of the fire and mechanical performance of wiring system elements:

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 flame for 120 minutes, then water sprayed for a further 3 minutes.

NSW
18-20 Brookhollow Ave
NORWEST 2153
02 8850 2888
sales@firesense.com.au

VIC
Unit 4, 297 Ingles St
PORT MELBOURNE 3207
03 9646 4557
salesvic@firesense.com.au

QLD
Unit 2, 225 Queensport Rd North
MURARRIE 4172
07 3890 8842
salesqld@firesense.com.au

www.firesense.com.au