

# INSTRUMENTATION CABLES

## FT50/55-CSIS SERIES

High Performance Intrinsically Safe  
Multipair Overall Foil Screened Tinned  
Instrumentation Cable 110VAC 90°C



### APPLICATIONS:

**Hazardous Areas** Suitable for wiring of intrinsically safe circuits.

**Signal and Controls** Power control or signal/instrumentation cables on machines, conveying equipment or similar industrial applications.

**Marine** Tinned copper conductors for use in marine applications.

### PRODUCT FEATURES:

- ▶ Extremely pliable PVC sheath
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Reduced flame propagation
- ▶ Heat, oil and chemical resistant *(See Technical Section)*

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded (Class 2).

**Insulation** Special SPVC V-90 (available in LSHF on request).

**Filler** Non-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).

**Sheath** Special SPVC 5V-90 (available in LSHF on request).

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -20°C to 90°C.

**Maximum Conductor Temperature** 90°C.

**Rated Voltage** 110VAC / 150VDC.

**Minimum Bending Radius** 10 x cable diameter.

**Sheath Colour** Intrinsically safe blue.

**Standard Core Colours** Each pair – 1 x White and 1 x Black conductor, with numbered cores (Triple – White/Black/Red).

**Relevant Standards** AS/NZS 1125, AS/NZS 2381, AS/NZS 3808, IEC 60332-1-2, IEC 60079.14, IEC 60332-3-22, **RoHS** Compliant.

Property	0.5mm <sup>2</sup>		1.5mm <sup>2</sup>	
	Value	Units	Value	Units
DC Conductor Resistance @ 20°C	38.4	Ω/km	13.6	Ω/km
Max. Capacitance Cond. to Cond. (screened)	145	pF/m	200	pF/m
Max. Capacitance Cond. to Scr. (screened)	240	pF/m	300	pF/m
Max. Capacitance Cond. to Cond. (unscreened)	82	pF/m	110	pF/m
Cross talk attenuation between pairs @ 1kHz (screened)	>125	dB/100m	>125	dB/100m
Cross talk attenuation between pairs @ 1kHz (unscreened)	>90	dB/100m	>90	dB/100m
Characteristic impedance @ 1kHz (screened)	300	Ω	150	Ω
Characteristic impedance @ 1kHz (unscreened)	380	Ω	200	Ω
Inductance @ 1kHz	1.00	mH/km	0.95	mH/km
L/R ratio @ 1kHz	13.7	μH/Ω	36.5	μH/Ω
Insulation Resistance @ 20°C	140	MΩ.km	140	MΩ.km

See over for full product table ▶

## FT50/55-CSIS SERIES continued

Code	No. of Cores x Size  (mm <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)
<b>FT5001CSIS</b>	1 pair 0.5	20	7/0.30	5.1	28
<b>FT5002CSIS</b>	2 pair 0.5	20	7/0.30	6.9	51
<b>FT5003CSIS</b>	3 pair 0.5	50	7/0.30	8.8	97
<b>FT5004CSIS</b>	4 pair 0.5	20	7/0.30	9.0	86
<b>FT5006CSIS</b>	6 pair 0.5	20	7/0.30	10.7	124
<b>FT5008CSIS</b>	8 pair 0.5	20	7/0.30	11.7	166
<b>FT5010CSIS</b>	10 pair 0.5	20	7/0.30	13.9	210
<b>FT5012CSIS</b>	12 pair 0.5	20	7/0.30	14.3	239
<b>FT5016CSIS</b>	16 pair 0.5	20	7/0.30	16.3	317
<b>FT5020CSIS</b>	20 pair 0.5	20	7/0.30	17.9	396
<b>FT5024CSIS</b>	24 pair 0.5	20	7/0.30	20.5	477
<b>FT5036CSIS</b>	36 pair 0.5	20	7/0.30	23.5	675
<b>FT5102ESIS</b>	1 pair 1.5	15	7/0.50	6.9	53
<b>FT5103ESIS</b>	1 triple 1.5	15	7/0.50	8.0	70
<b>FT5502CSIS</b>	2 pair 1.5	15	7/0.50	9.4	103
<b>FT5504CSIS</b>	4 pair 1.5	15	7/0.50	11.3	183
<b>FT5506CSIS</b>	6 pair 1.5	15	7/0.50	14.0	266
<b>FT5508CSIS</b>	8 pair 1.5	15	7/0.50	15.2	349
<b>FT5510CSIS</b>	10 pair 1.5	15	7/0.50	18.2	430
<b>FT5512CSIS</b>	12 pair 1.5	15	7/0.50	19.0	506
<b>FT5516CSIS</b>	16 pair 1.5	15	7/0.50	21.3	658
<b>FT5520CSIS</b>	20 pair 1.5	15	7/0.50	23.4	809
<b>FT5524CSIS</b>	24 pair 1.5	15	7/0.50	27.0	974
<b>FT5536CSIS</b>	36 pair 1.5	15	7/0.50	29.7	1403