

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.
- Oil and gas industry** with vertical flame propagation to IEC 60332-3-22.

PRODUCT FEATURES:

- ▶ Tinned copper conductors
- ▶ 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-hydroscopic polypropylene filler.
- Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm²).
- 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 ²		1.5mm ²	
	Value	Units	Value	Units
DC Conductor Resistance @ 20°C	36.7	Ω/km	12.2	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 ²)	Nearest AWG	Approx. Stranding No. of wires x mm ²	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
FT5001CSIS	1 pair 0.5	20	7/0.30	5.1	28
FT5002CSIS	2 pair 0.5	20	7/0.30	6.9	51
FT5003CSIS	3 pair 0.5	50	7/0.30	8.8	97
FT5004CSIS	4 pair 0.5	20	7/0.30	9.0	86
FT5006CSIS	6 pair 0.5	20	7/0.30	10.7	124
FT5008CSIS	8 pair 0.5	20	7/0.30	11.7	166
FT5010CSIS	10 pair 0.5	20	7/0.30	13.9	210
FT5012CSIS	12 pair 0.5	20	7/0.30	14.3	239
FT5016CSIS	16 pair 0.5	20	7/0.30	16.3	317
FT5020CSIS	20 pair 0.5	20	7/0.30	17.9	396
FT5024CSIS	24 pair 0.5	20	7/0.30	20.5	477
FT5036CSIS	36 pair 0.5	20	7/0.30	23.5	675
FT5102ESIS	1 pair 1.5	15	7/0.50	6.9	53
FT5103ESIS	1 triple 1.5	15	7/0.50	8.0	70
FT5502CSIS	2 pair 1.5	15	7/0.50	9.4	103
FT5504CSIS	4 pair 1.5	15	7/0.50	11.3	183
FT5506CSIS	6 pair 1.5	15	7/0.50	14.0	266
FT5508CSIS	8 pair 1.5	15	7/0.50	15.2	349
FT5510CSIS	10 pair 1.5	15	7/0.50	18.2	430
FT5512CSIS	12 pair 1.5	15	7/0.50	19.0	506
FT5516CSIS	16 pair 1.5	15	7/0.50	21.3	658
FT5520CSIS	20 pair 1.5	15	7/0.50	23.4	809
FT5524CSIS	24 pair 1.5	15	7/0.50	27.0	974
FT5536CSIS	36 pair 1.5	15	7/0.50	29.7	1403