

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.
- BUS Systems** Extra low capacitance cable suitable for RS485, RS422 POS, building and home BUS automation systems.
- 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-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	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 ▶

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.

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