

FT50/55-CS/SWAIS SERIES

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



APPLICATIONS:

Hazardous Areas This steel wire armour cable is suitable for use for instrumentation in oil and gas industries, mine sites and other harsh environments, when wiring of intrinsically safe circuits are specified.

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
- ▶ Steel wire armoured for hazardous conditions
- ▶ 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.

Bedding Flame retardant 5V-90 PVC extruded non-hydroscopic.

Armour Steel wire armour.

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.

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-CS/SWAIS SERIES continued

Code	No. of Cores x Size (mm ²)	Nearest AWG	Approx. Stranding No. of wires x mm ²	Overall Diameter over bedding (mm)	Overall Diameter over Armour (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)	Gland Size
FT5001CSSWAIS	1 pair 0.5	20	7/0.30	5.6	7.4	10.4	225	GMCW16 or GMCW20SS
FT5002CSSWAIS	2 pair 0.5	20	7/0.30	8.6	10.4	12.5	298	GMCW16 or GMCW20SS
FT5004CSSWAIS	4 pair 0.5	20	7/0.30	9.8	11.6	14.5	358	GMCW20S
FT5006CSSWAIS	6 pair 0.5	20	7/0.30	10.6	12.4	15.5	440	GMCW20S
FT5008CSSWAIS	8 pair 0.5	20	7/0.30	11.4	13.2	16.7	507	GMCW20
FT5010CSSWAIS	10 pair 0.5	20	7/0.30	13.3	15.1	18.7	592	GMCW25
FT5012CSSWAIS	12 pair 0.5	20	7/0.30	13.7	15.5	19.1	632	GMCW25
FT5016CSSWAIS	16 pair 0.5	20	7/0.30	15.4	17.2	21.3	763	GMCW25
FT5020CSSWAIS	20 pair 0.5	20	7/0.30	16.6	19.1	23.2	1006	GMCW25
FT5024CSSWAIS	24 pair 0.5	20	7/0.30	18.9	21.4	25.6	1150	GMCW25
FT5036CSSWAIS	36 pair 0.5	20	7/0.30	21.8	24.3	28.8	1449	GMCW32
FT5102ESSWAIS	1 pair 1.5	15	7/0.50	6.7	8.5	11.5	278	GMCW20S
FT5102CSSWAIS	2 pair 1.5	15	7/0.50	10.4	12.2	14.3	390	GMCW20S
FT5104CSSWAIS	4 pair 1.5	15	7/0.50	11.9	13.7	17.8	498	GMCW20
FT5106CSSWAIS	6 pair 1.5	15	7/0.50	13.2	15.0	18.3	651	GMCW20
FT5108CSSWAIS	8 pair 1.5	15	7/0.50	14.2	16.0	19.2	749	GMCW25
FT5110CSSWAIS	10 pair 1.5	15	7/0.50	16.7	19.2	22.5	1043	GMCW25
FT5112CSSWAIS	12 pair 1.5	15	7/0.50	17.3	19.8	23.8	1150	GMCW25
FT5116CSSWAIS	16 pair 1.5	15	7/0.50	19.4	21.9	26.0	1370	GMCW32
FT5120CSSWAIS	20 pair 1.5	15	7/0.50	21.3	23.8	28.1	1591	GMCW32
FT5124CSSWAIS	24 pair 1.5	15	7/0.50	24.3	26.8	32.1	1856	GMCW40
FT5136CSSWAIS	36 pair 1.5	15	7/0.50	27.9	31.1	35.0	2645	GMCW50