

FT50/55-ESCS/SWAIS

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



APPLICATIONS:

Hazardous Areas This steel wire armour cable is suitable for use for instrumentation in petrol 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.

PRODUCT FEATURES:

- ▶ 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	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-ESCS/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 ²)	Approx. Weight (Kg/Km)	Gland Size
FT5002ESCSWAIS	2 pair 0.5	20	7/0.30	8	9.8	12.9	245	GMCW16 or GMCW20SS
FT5004ESCSWAIS	4 pair 0.5	20	7/0.30	10.5	12.3	14.3	340	GMCW20S
FT5006ESCSWAIS	6 pair 0.5	20	7/0.30	12.7	14.5	16.7	420	GMCW20
FT5008ESCSWAIS	8 pair 0.5	20	7/0.30	14.5	17.0	19.4	630	GMCW25S
FT5010ESCSWAIS	10 pair 0.5	20	7/0.30	15.9	18.4	20.9	710	GMCW25S
FT5012ESCSWAIS	12 pair 0.5	20	7/0.30	16.3	18.8	21.3	760	GMCW25S
FT5016ESCSWAIS	16 pair 0.5	20	7/0.30	20.2	23.4	26.3	1130	GMCW25
FT5020ESCSWAIS	20 pair 0.5	20	7/0.30	22.6	25.8	29.2	1304	GMCW32
FT5024ESCSWAIS	24 pair 0.5	20	7/0.30	23.5	26.7	30.1	1450	GMCW32
FT502ESCSWAIS	2 pair 1.5	15	7/0.50	10.8	12.6	14.9	380	GMCW20S
FT504ESCSWAIS	4 pair 1.5	15	7/0.50	14.5	17.0	19.6	680	GMCW25S
FT506ESCSWAIS	6 pair 1.5	15	7/0.50	17.6	20.8	23.7	1010	GMCW25S
FT508ESCSWAIS	8 pair 1.5	15	7/0.50	18.5	21.7	24.7	1130	GMCW25
FT510ESCSWAIS	10 pair 1.5	15	7/0.50	22.4	25.6	28.9	1400	GMCW32
FT512ESCSWAIS	12 pair 1.5	15	7/0.50	23.5	26.7	30.1	1540	GMCW32
FT516ESCSWAIS	16 pair 1.5	15	7/0.50	28.2	31.4	35.3	1950	GMCW40
FT520ESCSWAIS	20 pair 1.5	15	7/0.50	31.4	35.4	39.6	2550	GMCW40
FT524ESCSWAIS	24 pair 1.5	15	7/0.50	34.3	39.3	44.0	3270	GMCW50S
FT536ESCSWAIS	36 pair 1.5	15	7/0.50	42.0	47.0	52.2	4360	GMCW50
FT550ESCSWAIS	50 pair 1.5	15	7/0.50	49.2	54.2	60.1	5550	GMCW63