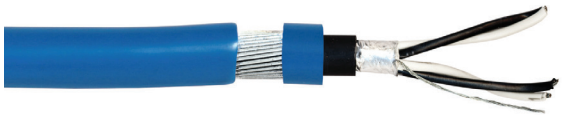
# FT50/55-ESCS/SWAIS

**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.

**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 | 0.5mm² | | 1.5mm² | |
|---|---|---|---|---|
| | 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-ESCS/SWAIS SERIES continued

| Code | No. of Cores x Size (mm²) | Nearest AWG | Approx. Stranding No. of wires x mm² | Overall Diameter over bedding (mm) | Overall Diameter over Armour (mm) | Approx. Overall Diameter (mm²) | Approx. Weight (Kg/Km) | Gland Size |
|---|---|---|---|---|---|---|---|---|
| FT5002ESCSSWAIS | 2 pair 0.5 | 20 | 7/0.30 | 8 | 9.8 | 12.9 | 245 | GMCW16 or GMCW20SS |
| FT5004ESCSSWAIS | 4 pair 0.5 | 20 | 7/0.30 | 10.5 | 12.3 | 14.3 | 340 | GMCW20S |
| FT5006ESCSSWAIS | 6 pair 0.5 | 20 | 7/0.30 | 12.7 | 14.5 | 16.7 | 420 | GMCW20 |
| FT5008ESCSSWAIS | 8 pair 0.5 | 20 | 7/0.30 | 14.5 | 17.0 | 19.4 | 630 | GMCW25S |
| FT5010ESCSSWAIS | 10 pair 0.5 | 20 | 7/0.30 | 15.9 | 18.4 | 20.9 | 710 | GMCW25S |
| FT5012ESCSSWAIS | 12 pair 0.5 | 20 | 7/0.30 | 16.3 | 18.8 | 21.3 | 760 | GMCW25S |
| FT5016ESCSSWAIS | 16 pair 0.5 | 20 | 7/0.30 | 20.2 | 23.4 | 26.3 | 1130 | GMCW25 |
| FT5020ESCSSWAIS | 20 pair 0.5 | 20 | 7/0.30 | 22.6 | 25.8 | 29.2 | 1304 | GMCW32 |
| FT5024ESCSSWAIS | 24 pair 0.5 | 20 | 7/0.30 | 23.5 | 26.7 | 30.1 | 1450 | GMCW32 |
| FT5502ESCSSWAIS | 2 pair 1.5 | 15 | 7/0.50 | 10.8 | 12.6 | 14.9 | 380 | GMCW20S |
| FT5504ESCSSWAIS | 4 pair 1.5 | 15 | 7/0.50 | 14.5 | 17.0 | 19.6 | 680 | GMCW25S |
| FT5506ESCSSWAIS | 6 pair 1.5 | 15 | 7/0.50 | 17.6 | 20.8 | 23.7 | 1010 | GMCW25S |
| FT5508ESCSSWAIS | 8 pair 1.5 | 15 | 7/0.50 | 18.5 | 21.7 | 24.7 | 1130 | GMCW25 |
| FT5510ESCSSWAIS | 10 pair 1.5 | 15 | 7/0.50 | 22.4 | 25.6 | 28.9 | 1400 | GMCW32 |
| FT5512ESCSSWAIS | 12 pair 1.5 | 15 | 7/0.50 | 23.5 | 26.7 | 30.1 | 1540 | GMCW32 |
| FT5516ESCSSWAIS | 16 pair 1.5 | 15 | 7/0.50 | 28.2 | 31.4 | 35.3 | 1950 | GMCW40 |
| FT5520ESCSSWAIS | 20 pair 1.5 | 15 | 7/0.50 | 31.4 | 35.4 | 39.6 | 2550 | GMCW40 |
| FT5524ESCSSWAIS | 24 pair 1.5 | 15 | 7/0.50 | 34.3 | 39.3 | 44.0 | 3270 | GMCW50S |
| FT5536ESCSSWAIS | 36 pair 1.5 | 15 | 7/0.50 | 42.0 | 47.0 | 52.2 | 4360 | GMCW50 |
| FT5550ESCSSWAIS | 50 pair 1.5 | 15 | 7/0.50 | 49.2 | 54.2 | 60.1 | 5550 | GMCW63 |