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INSTRUMENTATION CABLES

FT75-CS SERIES

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



APPLICATIONS:

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 Black.

Standard Core Colours Each pair – 1 x White and 1 x Black conductor, with numbered cores.

Relevant Standards AS/NZS 1125, AS/NZS 3808, IEC 60332-1-2, IEC 60332-3-22, IEC 60079.14, **RoHS** Compliant.

Property	0.75mm ²	
	Value	Units
DC Conductor Resistance @ 20°C	24.5	Ω/km
Inductance @ 1kHz	0.98	mH/km
L/R ratio @ 1kHz	20	μH/Ω
Insulation Resistance @ 20°C	140	MΩ.km

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)
FT7501CS	1 pair 0.75	18	7/0.37	5.8	40
FT7502CS	2 pair 0.75	18	7/0.37	8.5	71
FT7504CS	4 pair 0.75	18	7/0.37	10.0	118

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.

FT75-CSIS SERIES

High Performance 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

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.
- Relevant Standards** AS/NZS 1125, AS/NZS 3808, IEC 60332-1-2, IEC 60332-3-22, IEC 60079.14, **RoHS** Compliant.

Property	0.75mm ²	
	Value	Units
DC Conductor Resistance @ 20°C	24.5	Ω/km
Inductance @ 1kHz	0.98	mH/km
L/R ratio @ 1kHz	20	μH/Ω
Insulation Resistance @ 20°C	140	MΩ.km

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)
FT7501CSIS	1 pair 0.75	18	7/0.37	5.8	40
FT7502CSIS	2 pair 0.75	18	7/0.37	8.5	71
FT7504CSIS	4 pair 0.75	18	7/0.37	10.0	118

INSTRUMENTATION CABLES

FT50/55-CS SERIES

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



APPLICATIONS:

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 Black.

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 3808, IEC 60332-1-2, IEC 60332-3-22, IEC 60079.14, **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-CS 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)
FT5001CS	1 pair 0.5	20	7/0.30	5.1	28
FT5002CS	2 pair 0.5	20	7/0.30	6.9	51
FT5003CS	3 pair 0.5	50	7/0.30	8.8	97
FT5004CS	4 pair 0.5	20	7/0.30	9.0	86
FT5006CS	6 pair 0.5	20	7/0.30	10.7	124
FT5008CS	8 pair 0.5	20	7/0.30	11.7	166
FT5010CS	10 pair 0.5	20	7/0.30	13.9	210
FT5012CS	12 pair 0.5	20	7/0.30	14.3	239
FT5016CS	16 pair 0.5	20	7/0.30	16.3	317
FT5020CS	20 pair 0.5	20	7/0.30	17.9	396
FT5024CS	24 pair 0.5	20	7/0.30	20.5	477
FT5036CS	36 pair 0.5	20	7/0.30	23.5	675
FT5102ES	1 pair 1.5	15	7/0.50	6.9	53
FT5103ES	1 triple 1.5	15	7/0.50	8.0	70
FT5502CS	2 pair 1.5	15	7/0.50	9.4	103
FT5504CS	4 pair 1.5	15	7/0.50	11.3	183
FT5506CS	6 pair 1.5	15	7/0.50	14.0	266
FT5508CS	8 pair 1.5	15	7/0.50	15.2	349
FT5510CS	10 pair 1.5	15	7/0.50	18.2	430
FT5512CS	12 pair 1.5	15	7/0.50	19.0	506
FT5516CS	16 pair 1.5	15	7/0.50	21.3	658
FT5520CS	20 pair 1.5	15	7/0.50	23.4	809
FT5524CS	24 pair 1.5	15	7/0.50	27.0	974
FT5536CS	36 pair 1.5	15	7/0.50	29.7	1403

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.

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 ▶

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

INSTRUMENTATION CABLES

FT50/55-ESCS SERIES

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



APPLICATIONS:

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 & individual 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 Black.

Standard Core Colours Each pair – 1 x White and 1 x Black conductor, with numbered cores.

Relevant Standards AS/NZS 1125, 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 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)
FT5002ESCS	2 pair 0.5	20	7/0.30	7.6	58
FT5004ESCS	4 pair 0.5	20	7/0.30	10.4	100
FT5006ESCS	6 pair 0.5	20	7/0.30	12.7	145
FT5008ESCS	8 pair 0.5	20	7/0.30	14.5	193
FT5010ESCS	10 pair 0.5	20	7/0.30	14.9	244
FT5012ESCS	12 pair 0.5	20	7/0.30	15.4	279
FT5016ESCS	16 pair 0.5	20	7/0.30	16.3	370
FT5020ESCS	20 pair 0.5	20	7/0.30	19.3	462
FT5024ESCS	24 pair 0.5	20	7/0.30	23.5	558
FT5036ESCS	36 pair 0.5	20	7/0.30	25.3	792
FT5502ESCS	2 pair 1.5	15	7/0.50	10.0	113
FT5504ESCS	4 pair 1.5	15	7/0.50	12.1	199
FT5506ESCS	6 pair 1.5	15	7/0.50	14.6	290
FT5508ESCS	8 pair 1.5	15	7/0.50	16.2	381
FT5510ESCS	10 pair 1.5	15	7/0.50	19.0	470
FT5512ESCS	12 pair 1.5	15	7/0.50	21.1	570
FT5516ESCS	16 pair 1.5	15	7/0.50	22.2	717
FT5520ESCS	20 pair 1.5	15	7/0.50	24.2	884
FT5524ESCS	24 pair 1.5	15	7/0.50	27.8	1064
FT5536ESCS	36 pair 1.5	15	7/0.50	31.9	1535

INSTRUMENTATION CABLES

FT50/55-ESCSIS SERIES

High Performance Intrinsically Safe Multipair Overall & Individually 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.

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 & individual 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.
- 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-ESCSIS 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)
FT5002ESCSIS	2 pair 0.5	20	7/0.30	7.6	58
FT5004ESCSIS	4 pair 0.5	20	7/0.30	10.4	100
FT5006ESCSIS	6 pair 0.5	20	7/0.30	12.7	145
FT5008ESCSIS	8 pair 0.5	20	7/0.30	14.5	193
FT5010ESCSIS	10 pair 0.5	20	7/0.30	14.9	244
FT5012ESCSIS	12 pair 0.5	20	7/0.30	16.3	279
FT5016ESCSIS	16 pair 0.5	20	7/0.30	17.5	370
FT5020ESCSIS	20 pair 0.5	20	7/0.30	19.3	462
FT5024ESCSIS	24 pair 0.5	20	7/0.30	23.5	558
FT5036ESCSIS	36 pair 0.5	20	7/0.30	25.3	792
FT5502ESCSIS	2 pair 1.5	15	7/0.50	10.0	113
FT5504ESCSIS	4 pair 1.5	15	7/0.50	12.1	199
FT5506ESCSIS	6 pair 1.5	15	7/0.50	14.6	290
FT5508ESCSIS	8 pair 1.5	15	7/0.50	16.2	381
FT5510ESCSIS	10 pair 1.5	15	7/0.50	19.0	470
FT5512ESCSIS	12 pair 1.5	15	7/0.50	21.1	570
FT5516ESCSIS	16 pair 1.5	15	7/0.50	22.2	717
FT5520ESCSIS	20 pair 1.5	15	7/0.50	24.2	884
FT5524ESCSIS	24 pair 1.5	15	7/0.50	27.8	1064
FT5536ESCSIS	36 pair 1.5	15	7/0.50	31.9	1535

INSTRUMENTATION CABLES

FT50/55-CS/SWA SERIES

High Performance 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.

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 Black.

Standard Core Colours Each pair – 1 x White and 1 x Black conductor, with numbered cores.

Relevant Standards AS/NZS 1125, 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-CS/SWA 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
FT5001CSSWA	1 pair 0.5	20	7/0.30	5.6	7.4	10.4	225	GMCW16 or GMCW20SS
FT5002CSSWA	2 pair 0.5	20	7/0.30	8.6	10.4	12.5	298	GMCW16 or GMCW20SS
FT5004CSSWA	4 pair 0.5	20	7/0.30	9.8	11.6	14.5	358	GMCW20S
FT5006CSSWA	6 pair 0.5	20	7/0.30	10.6	12.4	15.5	440	GMCW20S
FT5008CSSWA	8 pair 0.5	20	7/0.30	11.4	13.2	16.7	507	GMCW20
FT5010CSSWA	10 pair 0.5	20	7/0.30	13.3	15.1	18.7	592	GMCW25
FT5012CSSWA	12 pair 0.5	20	7/0.30	13.7	15.5	19.1	632	GMCW25
FT5016CSSWA	16 pair 0.5	20	7/0.30	15.4	17.2	21.3	763	GMCW25
FT5020CSSWA	20 pair 0.5	20	7/0.30	16.6	19.1	23.2	1006	GMCW25
FT5024CSSWA	24 pair 0.5	20	7/0.30	18.9	21.4	25.6	1150	GMCW25
FT5036CSSWA	36 pair 0.5	20	7/0.30	21.8	24.3	28.8	1449	GMCW32
FT5102ESSWA	1 pair 1.5	15	7/0.50	6.7	8.5	11.5	278	GMCW16 or GMCW20SS
FT5502CSSWA	2 pair 1.5	15	7/0.50	10.4	12.2	14.3	390	GMCW20S
FT5504CSSWA	4 pair 1.5	15	7/0.50	11.9	13.7	17.8	498	GMCW20
FT5506CSSWA	6 pair 1.5	15	7/0.50	13.2	15.0	18.3	651	GMCW20
FT5508CSSWA	8 pair 1.5	15	7/0.50	14.2	16.0	19.2	749	GMCW25
FT5510CSSWA	10 pair 1.5	15	7/0.50	16.7	19.2	22.5	1043	GMCW25
FT5512CSSWA	12 pair 1.5	15	7/0.50	17.3	19.8	23.8	1150	GMCW25
FT5516CSSWA	16 pair 1.5	15	7/0.50	19.4	21.9	26.0	1370	GMCW32
FT5520CSSWA	20 pair 1.5	15	7/0.50	21.3	23.8	28.1	1591	GMCW32
FT5524CSSWA	24 pair 1.5	15	7/0.50	24.3	26.8	32.1	1856	GMCW40
FT5536CSSWA	36 pair 1.5	15	7/0.50	27.9	31.1	35.0	2645	GMCW50

INSTRUMENTATION CABLES

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.

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-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
FT5502CSSWAIS	2 pair 1.5	15	7/0.50	10.4	12.2	14.3	390	GMCW20S
FT5504CSSWAIS	4 pair 1.5	15	7/0.50	11.9	13.7	17.8	498	GMCW20
FT5506CSSWAIS	6 pair 1.5	15	7/0.50	13.2	15.0	18.3	651	GMCW20
FT5508CSSWAIS	8 pair 1.5	15	7/0.50	14.2	16.0	19.2	749	GMCW25
FT5510CSSWAIS	10 pair 1.5	15	7/0.50	16.7	19.2	22.5	1043	GMCW25
FT5512CSSWAIS	12 pair 1.5	15	7/0.50	17.3	19.8	23.8	1150	GMCW25
FT5516CSSWAIS	16 pair 1.5	15	7/0.50	19.4	21.9	26.0	1370	GMCW32
FT5520CSSWAIS	20 pair 1.5	15	7/0.50	21.3	23.8	28.1	1591	GMCW32
FT5524CSSWAIS	24 pair 1.5	15	7/0.50	24.3	26.8	32.1	1856	GMCW40
FT5536CSSWAIS	36 pair 1.5	15	7/0.50	27.9	31.1	35.0	2645	GMCW50

INSTRUMENTATION CABLES

FT50/55-ESCS/SWA SERIES

High Performance 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 field industries, mine sites and other harsh environments.

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 black.

Standard Core Colours Each pair – 1 x White and 1 x Black conductor, with numbered cores.

Relevant Standards AS/NZS 1125, 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/SWA 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
FT5002ESCSWA	2 pair 0.5	20	7/0.30	8	9.8	12.9	245	GMCW16 or GMCW20SS
FT5004ESCSWA	4 pair 0.5	20	7/0.30	10.5	12.3	14.3	340	GMCW20S
FT5006ESCSWA	6 pair 0.5	20	7/0.30	12.7	14.5	16.7	420	GMCW20
FT5008ESCSWA	8 pair 0.5	20	7/0.30	14.5	17.0	19.4	630	GMCW25S
FT5010ESCSWA	10 pair 0.5	20	7/0.30	15.9	18.4	20.9	710	GMCW25S
FT5012ESCSWA	12 pair 0.5	20	7/0.30	16.3	18.8	21.3	760	GMCW25S
FT5016ESCSWA	16 pair 0.5	20	7/0.30	20.2	23.4	26.3	1130	GMCW25
FT5020ESCSWA	20 pair 0.5	20	7/0.30	22.6	25.8	29.2	1304	GMCW32
FT5024ESCSWA	24 pair 0.5	20	7/0.30	23.5	26.7	30.1	1450	GMCW32
FT5502ESCSWA	2 pair 1.5	15	7/0.50	10.8	12.6	14.9	380	GMCW20S
FT5504ESCSWA	4 pair 1.5	15	7/0.50	14.5	17.0	19.6	680	GMCW25S
FT5506ESCSWA	6 pair 1.5	15	7/0.50	17.6	20.8	23.7	1010	GMCW25S
FT5508ESCSWA	8 pair 1.5	15	7/0.50	18.5	21.7	24.7	1130	GMCW25
FT5510ESCSWA	10 pair 1.5	15	7/0.50	22.4	25.6	28.9	1400	GMCW32
FT5512ESCSWA	12 pair 1.5	15	7/0.50	23.5	26.7	30.1	1540	GMCW32
FT5516ESCSWA	16 pair 1.5	15	7/0.50	28.2	31.4	35.3	1950	GMCW40
FT5520ESCSWA	20 pair 1.5	15	7/0.50	31.4	35.4	39.6	2550	GMCW40
FT5524ESCSWA	24 pair 1.5	15	7/0.50	34.3	39.3	44.0	3270	GMCW50S
FT5536ESCSWA	36 pair 1.5	15	7/0.50	42.0	47.0	52.2	4360	GMCW50
FT5550ESCSWA	50 pair 1.5	15	7/0.50	49.2	54.2	60.1	5550	GMCW63

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
FT5502ESCSWAIS	2 pair 1.5	15	7/0.50	10.8	12.6	14.9	380	GMCW20S
FT5504ESCSWAIS	4 pair 1.5	15	7/0.50	14.5	17.0	19.6	680	GMCW25S
FT5506ESCSWAIS	6 pair 1.5	15	7/0.50	17.6	20.8	23.7	1010	GMCW25S
FT5508ESCSWAIS	8 pair 1.5	15	7/0.50	18.5	21.7	24.7	1130	GMCW25
FT5510ESCSWAIS	10 pair 1.5	15	7/0.50	22.4	25.6	28.9	1400	GMCW32
FT5512ESCSWAIS	12 pair 1.5	15	7/0.50	23.5	26.7	30.1	1540	GMCW32
FT5516ESCSWAIS	16 pair 1.5	15	7/0.50	28.2	31.4	35.3	1950	GMCW40
FT5520ESCSWAIS	20 pair 1.5	15	7/0.50	31.4	35.4	39.6	2550	GMCW40
FT5524ESCSWAIS	24 pair 1.5	15	7/0.50	34.3	39.3	44.0	3270	GMCW50S
FT5536ESCSWAIS	36 pair 1.5	15	7/0.50	42.0	47.0	52.2	4360	GMCW50
FT5550ESCSWAIS	50 pair 1.5	15	7/0.50	49.2	54.2	60.1	5550	GMCW63

INSTRUMENTATION CABLES

FT53/56-CS SERIES

High Performance Triad Overall Foil Screened Tinned Instrumentation Cable 110VAC 90°C



APPLICATIONS:

Control Electrical sensing devices to control cabinets and to supervisory consoles and panels.

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 Black (available in intrinsically safe blue and other colours on request).

Standard Core Colours Each Triad – 1 x White, 1 x Black, 1 Red conductor, with numbered cores.

Relevant Standards AS/NZS 1125, 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 ▶

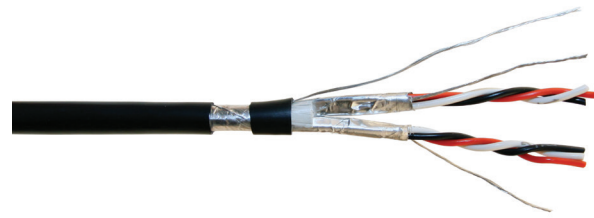
FT53/56-CS SERIES continued

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)
FT5301CS	1 triple 0.5	20	7/0.30	5.2	36
FT5302CS	2 triple 0.5	20	7/0.30	7.8	70
FT5303CS	3 triple 0.5	20	7/0.30	8.2	93
FT5304CS	4 triple 0.5	20	7/0.30	9.2	120
FT5306CS	6 triple 0.5	20	7/0.30	11.3	179
FT5308CS	8 triple 0.5	20	7/0.30	12.2	225
FT5310CS	10 triple 0.5	20	7/0.30	14.6	290
FT5312CS	12 triple 0.5	20	7/0.30	15.5	348
FT5316CS	16 triple 0.5	20	7/0.30	17.1	442
FT5320CS	20 triple 0.5	20	7/0.30	18.6	543
FT5324CS	24 triple 0.5	20	7/0.30	21.3	653
FT5336CS	36 triple 0.5	20	7/0.30	24.4	936
FT5103ES	1 triple 1.5	15	7/0.50	8.0	70
FT5602CS	2 triple 1.5	15	7/0.50	10.0	142
FT5603CS	3 triple 1.5	15	7/0.50	11.0	198
FT5604CS	4 triple 1.5	15	7/0.50	11.8	251
FT5606CS	6 triple 1.5	15	7/0.50	14.5	373
FT5608CS	8 triple 1.5	15	7/0.50	16.0	491
FT5610CS	10 triple 1.5	15	7/0.50	19.1	624
FT5612CS	12 triple 1.5	15	7/0.50	19.7	726
FT5616CS	16 triple 1.5	15	7/0.50	22.5	946
FT5620CS	20 triple 1.5	15	7/0.50	24.3	1153
FT5624CS	24 triple 1.5	15	7/0.50	27.7	1374
FT5636CS	36 triple 1.5	15	7/0.50	32.0	2014

INSTRUMENTATION CABLES

FT53/56-ESCS SERIES

High Performance Triad Overall & Individually Foil Screened Tinned Instrumentation Cable 110VAC 90°C



APPLICATIONS:

Control Electrical sensing devices to control cabinets and to supervisory consoles and panels.

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 & individual 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 Black (available in intrinsically safe blue and other colours on request).

Standard Core Colours Each Triad – 1 x White, 1 x Black, 1 Red conductor, with numbered cores.

Relevant Standards AS/NZS 1125, 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 ▶

FT53/56-ESCS 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)
FT5302ESCS	2 triple 0.5	20	7/0.30	10.0	117
FT5303ESCS	3 triple 0.5	20	7/0.30	11.1	127
FT5304ESCS	4 triple 0.5	20	7/0.30	11.6	140
FT5306ESCS	6 triple 0.5	20	7/0.30	14.0	200
FT5308ESCS	8 triple 0.5	20	7/0.30	16.4	260
FT5310ESCS	10 triple 0.5	20	7/0.30	18.1	310
FT5312ESCS	12 triple 0.5	20	7/0.30	18.5	360
FT5316ESCS	16 triple 0.5	20	7/0.30	22.3	470
FT5320ESCS	20 triple 0.5	20	7/0.30	26.3	658
FT5324ESCS	24 triple 0.5	20	7/0.30	31.3	760
FT5336ESCS	36 triple 0.5	20	7/0.30	32.7	1040
FT5602ESCS	2 triple 1.5	15	7/0.50	12.2	193
FT5603ESCS	3 triple 1.5	15	7/0.50	13.4	244
FT5604ESCS	4 triple 1.5	15	7/0.50	15.7	300
FT5606ESCS	6 triple 1.5	15	7/0.50	21.0	450
FT5608ESCS	8 triple 1.5	15	7/0.50	25.6	600
FT5610ESCS	10 triple 1.5	15	7/0.50	26.9	730
FT5612ESCS	12 triple 1.5	15	7/0.50	28.1	840
FT5616ESCS	16 triple 1.5	15	7/0.50	33.9	1150
FT5620ESCS	20 triple 1.5	15	7/0.50	36.9	1291
FT5624ESCS	24 triple 1.5	15	7/0.50	41.4	1700
FT5636ESCS	36 triple 1.5	15	7/0.50	50.6	2560

INSTRUMENTATION CABLES

FT53/56-CS/SWA SERIES

High Performance Triad 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.

Control Electrical sensing devices to control cabinets and to supervisory consoles and panels.

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 Black (available in intrinsically safe blue and other colours on request).

Standard Core Colours Each Triad – 1 x White, 1 x Black, 1 Red conductor, with numbered cores.

Relevant Standards AS/NZS 1125, AS/NZS 3808, IEC 60332-1-2, IEC 60079.1, 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 ▶

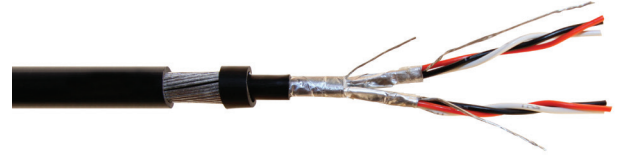
FT53/56-CS/SWA SERIES continued

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
FT5301CSSWA	1 triple 0.5	20	7/0.30	5.9	7.7	10.6	239	GMCW16 or GMCW20SS
FT5302CSSWA	2 triple 0.5	20	7/0.30	8.1	9.9	12.8	329	GMCW16 or GMCW20SS
FT5304CSSWA	4 triple 0.5	20	7/0.30	10.4	12.2	14.2	380	GMCW20S
FT5306CSSWA	6 triple 0.5	20	7/0.30	12.7	15.2	17.4	580	GMCW20
FT5308CSSWA	8 triple 0.5	20	7/0.30	14.4	16.9	19.3	690	GMCW25S
FT5310CSSWA	10 triple 0.5	20	7/0.30	16.1	18.6	21.2	790	GMCW25S
FT5312CSSWA	12 triple 0.5	20	7/0.30	16.3	18.8	21.4	850	GMCW25S
FT5316CSSWA	16 triple 0.5	20	7/0.30	20.2	23.4	26.2	1200	GMCW25
FT5320CSSWA	20 triple 0.5	20	7/0.30	22.4	25.6	28.9	1540	GMCW32
FT5324CSSWA	24 pair 0.5	20	7/0.30	24.7	27.9	31.4	1680	GMCW32
FT5336CSSWA	36 triple 0.5	20	7/0.30	29.8	32.9	36.6	2200	GMCW40
FT5103ESSWA	1 triple 1.5	15	7/0.50	7.0	8.8	11.7	303	GMCW16 or GMCW20SS
FT5602CSSWA	2 triple 1.5	15	7/0.50	9.9	11.7	14.6	437	GMCW20S
FT5604CSSWA	4 triple 1.5	15	7/0.50	14.9	17.4	20.0	760	GMCW25S
FT5606CSSWA	6 triple 1.5	15	7/0.50	18.1	21.3	24.2	1130	GMCW25S
FT5608CSSWA	8 triple 1.5	15	7/0.50	18.5	21.7	24.7	1150	GMCW25
FT5610CSSWA	10 triple 1.5	15	7/0.50	23.1	26.3	29.6	1680	GMCW32
FT5612CSSWA	12 triple 1.5	15	7/0.50	25.3	28.5	32.0	2210	GMCW32
FT5616CSSWA	16 triple 1.5	15	7/0.50	28.8	32.0	35.5	2840	GMCW40
FT5620CSSWA	20 triple 1.5	15	7/0.50	31.8	35.0	38.5	3470	GMCW40S
FT5624CSSWA	24 triple 1.5	15	7/0.50	35.4	40.4	45.0	3790	GMCW50S
FT5636CSSWA	36 triple 1.5	15	7/0.50	42.6	47.6	52.3	4950	GMCW50

INSTRUMENTATION CABLES

FT53/56-ESCS/SWA SERIES

High Performance Triad 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 oil and gas industries, mine sites and other harsh environments.

Control Electrical sensing devices to control cabinets and to supervisory consoles and panels.

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 and individual 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 Black (available in intrinsically safe blue and other colours on request).

Standard Core Colours Each triad – 1 x White, 1 x Black, 1 Red 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 ▶

FT53/56-ESCS/SWA 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
FT5302ESCSWA	2 triple 0.5	20	7/0.30	9.6	11.4	13.6	240	GMCW20S
FT5304ESCSWA	4 triple 0.5	20	7/0.30	11.6	13.4	15.6	410	GMCW20S
FT5306ESCSWA	6 triple 0.5	20	7/0.30	14.0	16.5	19.0	640	GMCW20
FT5308ESCSWA	8 triple 0.5	20	7/0.30	16.4	18.9	21.6	780	GMCW25S
FT5310ESCSWA	10 triple 0.5	20	7/0.30	16.7	19.2	21.9	850	GMCW25S
FT5312ESCSWA	12 triple 0.5	20	7/0.30	18.5	21.7	24.7	1100	GMCW25S
FT5316ESCSWA	16 triple 0.5	20	7/0.30	22.3	25.5	28.5	1350	GMCW32
FT5320ESCSWA	20 triple 0.5	20	7/0.30	24.9	28.1	31.6	1560	GMCW32
FT5324ESCSWA	24 pair 0.5	20	7/0.30	27.9	31.1	34.6	1800	GMCW40
FT5336ESCSWA	36 triple 0.5	20	7/0.30	31.1	35.1	39.2	2600	GMCW40
FT5602ESCSWA	2 triple 1.5	15	7/0.50	12.7	15.2	17.8	400	GMCW20
FT5604ESCSWA	4 triple 1.5	15	7/0.50	15.7	18.2	20.8	800	GMCW25S
FT5606ESCSWA	6 triple 1.5	15	7/0.50	22.8	26.0	29.3	1400	GMCW32
FT5608ESCSWA	8 triple 1.5	15	7/0.50	25.6	28.8	32.4	1660	GMCW32
FT5610ESCSWA	10 triple 1.5	15	7/0.50	26.3	29.5	33.2	1800	GMCW40
FT5612ESCSWA	12 triple 1.5	15	7/0.50	27.2	30.4	33.9	1920	GMCW40
FT5616ESCSWA	16 triple 1.5	15	7/0.50	27.9	31.1	34.6	2180	GMCW40
FT5620ESCSWA	20 triple 1.5	15	7/0.50	31.4	36.2	40.7	2600	GMCW40
FT5624ESCSWA	24 triple 1.5	15	7/0.50	34.2	39.2	43.7	3800	GMCW50S
FT5636ESCSWA	36 triple 1.5	15	7/0.50	41.9	46.9	52.0	4350	GMCW50S

FT655-ESCS SERIES

High Performance Multipair Overall & Individually Foil Screened Tinned Instrumentation Cable 0.6 / 1kV 90°C



APPLICATIONS:

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.

Low Voltage With its 600V rated insulation and 1.8mm thick sheath, this series is suitable to run next to low voltage mains.

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.

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 0.6/1kV.

Minimum Bending Radius 10 x cable diameter.

Sheath Colour Black.

Standard Core Colours Each pair – 1 x White and 1 x Black conductor, with numbered cores.

Relevant Standards AS/NZS 1125, AS/NZS 3808, IEC 60332-1-2, IEC 60079.14, IEC 60332-3-22, **RoHS** Compliant.

Property	1.5mm ²	
	Value	Units
DC Conductor Resistance @ 20°C	13.6	Ω/km
Inductance @ 1kHz	0.95	mH/km
L/R ratio @ 1kHz	36.5	μH/Ω
Insulation Resistance @ 20°C	140	MΩ.km

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)
FT65102ES	1 pair 1.5	15	7/0.50	10.0	63
FT65502ESCS	2 pair 1.5	15	7/0.50	15.2	123
FT65504ESCS	4 pair 1.5	15	7/0.50	17.6	209
FT65103ES	1 triple 1.5	15	7/0.50	10.4	80

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