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# 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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)
<b>FT5001CSIS</b>	1 pair 0.5	20	7/0.30	5.1	28
<b>FT5002CSIS</b>	2 pair 0.5	20	7/0.30	6.9	51
<b>FT5003CSIS</b>	3 pair 0.5	50	7/0.30	8.8	97
<b>FT5004CSIS</b>	4 pair 0.5	20	7/0.30	9.0	86
<b>FT5006CSIS</b>	6 pair 0.5	20	7/0.30	10.7	124
<b>FT5008CSIS</b>	8 pair 0.5	20	7/0.30	11.7	166
<b>FT5010CSIS</b>	10 pair 0.5	20	7/0.30	13.9	210
<b>FT5012CSIS</b>	12 pair 0.5	20	7/0.30	14.3	239
<b>FT5016CSIS</b>	16 pair 0.5	20	7/0.30	16.3	317
<b>FT5020CSIS</b>	20 pair 0.5	20	7/0.30	17.9	396
<b>FT5024CSIS</b>	24 pair 0.5	20	7/0.30	20.5	477
<b>FT5036CSIS</b>	36 pair 0.5	20	7/0.30	23.5	675
<b>FT5102ESIS</b>	1 pair 1.5	15	7/0.50	6.9	53
<b>FT5103ESIS</b>	1 triple 1.5	15	7/0.50	8.0	70
<b>FT5502CSIS</b>	2 pair 1.5	15	7/0.50	9.4	103
<b>FT5504CSIS</b>	4 pair 1.5	15	7/0.50	11.3	183
<b>FT5506CSIS</b>	6 pair 1.5	15	7/0.50	14.0	266
<b>FT5508CSIS</b>	8 pair 1.5	15	7/0.50	15.2	349
<b>FT5510CSIS</b>	10 pair 1.5	15	7/0.50	18.2	430
<b>FT5512CSIS</b>	12 pair 1.5	15	7/0.50	19.0	506
<b>FT5516CSIS</b>	16 pair 1.5	15	7/0.50	21.3	658
<b>FT5520CSIS</b>	20 pair 1.5	15	7/0.50	23.4	809
<b>FT5524CSIS</b>	24 pair 1.5	15	7/0.50	27.0	974
<b>FT5536CSIS</b>	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-hygroscopic polypropylene filler.

**Screening** Collective & individual shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)
<b>FT5002ESCS</b>	2 pair 0.5	20	7/0.30	7.6	58
<b>FT5004ESCS</b>	4 pair 0.5	20	7/0.30	10.4	100
<b>FT5006ESCS</b>	6 pair 0.5	20	7/0.30	12.7	145
<b>FT5008ESCS</b>	8 pair 0.5	20	7/0.30	14.5	193
<b>FT5010ESCS</b>	10 pair 0.5	20	7/0.30	14.9	244
<b>FT5012ESCS</b>	12 pair 0.5	20	7/0.30	15.4	279
<b>FT5016ESCS</b>	16 pair 0.5	20	7/0.30	16.3	370
<b>FT5020ESCS</b>	20 pair 0.5	20	7/0.30	19.3	462
<b>FT5024ESCS</b>	24 pair 0.5	20	7/0.30	23.5	558
<b>FT5036ESCS</b>	36 pair 0.5	20	7/0.30	25.3	792
<b>FT5502ESCS</b>	2 pair 1.5	15	7/0.50	10.0	113
<b>FT5504ESCS</b>	4 pair 1.5	15	7/0.50	12.1	199
<b>FT5506ESCS</b>	6 pair 1.5	15	7/0.50	14.6	290
<b>FT5508ESCS</b>	8 pair 1.5	15	7/0.50	16.2	381
<b>FT5510ESCS</b>	10 pair 1.5	15	7/0.50	19.0	470
<b>FT5512ESCS</b>	12 pair 1.5	15	7/0.50	21.1	570
<b>FT5516ESCS</b>	16 pair 1.5	15	7/0.50	22.2	717
<b>FT5520ESCS</b>	20 pair 1.5	15	7/0.50	24.2	884
<b>FT5524ESCS</b>	24 pair 1.5	15	7/0.50	27.8	1064
<b>FT5536ESCS</b>	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-hygroscopic polypropylene filler.

**Screening** Collective & individual shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 ▶



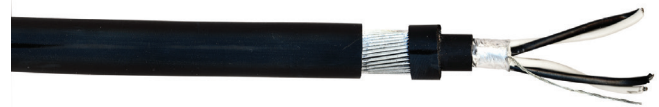
## FT50/55-ESCSIS SERIES continued

Code	No. of Cores x Size  (mm <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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/SWA SERIES continued

Code	No. of Cores x Size  (mm <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Overall Diameter over bedding  (mm)	Overall Diameter over Armour  (mm)	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)	Gland Size
<b>FT5001CSSWA</b>	1 pair 0.5	20	7/0.30	5.6	7.4	10.4	225	GMCW16 or GMCW20SS
<b>FT5002CSSWA</b>	2 pair 0.5	20	7/0.30	8.6	10.4	12.5	298	GMCW16 or GMCW20SS
<b>FT5004CSSWA</b>	4 pair 0.5	20	7/0.30	9.8	11.6	14.5	358	GMCW20S
<b>FT5006CSSWA</b>	6 pair 0.5	20	7/0.30	10.6	12.4	15.5	440	GMCW20S
<b>FT5008CSSWA</b>	8 pair 0.5	20	7/0.30	11.4	13.2	16.7	507	GMCW20
<b>FT5010CSSWA</b>	10 pair 0.5	20	7/0.30	13.3	15.1	18.7	592	GMCW25
<b>FT5012CSSWA</b>	12 pair 0.5	20	7/0.30	13.7	15.5	19.1	632	GMCW25
<b>FT5016CSSWA</b>	16 pair 0.5	20	7/0.30	15.4	17.2	21.3	763	GMCW25
<b>FT5020CSSWA</b>	20 pair 0.5	20	7/0.30	16.6	19.1	23.2	1006	GMCW25
<b>FT5024CSSWA</b>	24 pair 0.5	20	7/0.30	18.9	21.4	25.6	1150	GMCW25
<b>FT5036CSSWA</b>	36 pair 0.5	20	7/0.30	21.8	24.3	28.8	1449	GMCW32
<b>FT5102ESSWA</b>	1 pair 1.5	15	7/0.50	6.7	8.5	11.5	278	GMCW16 or GMCW20SS
<b>FT5502CSSWA</b>	2 pair 1.5	15	7/0.50	10.4	12.2	14.3	390	GMCW20S
<b>FT5504CSSWA</b>	4 pair 1.5	15	7/0.50	11.9	13.7	17.8	498	GMCW20
<b>FT5506CSSWA</b>	6 pair 1.5	15	7/0.50	13.2	15.0	18.3	651	GMCW20
<b>FT5508CSSWA</b>	8 pair 1.5	15	7/0.50	14.2	16.0	19.2	749	GMCW25
<b>FT5510CSSWA</b>	10 pair 1.5	15	7/0.50	16.7	19.2	22.5	1043	GMCW25
<b>FT5512CSSWA</b>	12 pair 1.5	15	7/0.50	17.3	19.8	23.8	1150	GMCW25
<b>FT5516CSSWA</b>	16 pair 1.5	15	7/0.50	19.4	21.9	26.0	1370	GMCW32
<b>FT5520CSSWA</b>	20 pair 1.5	15	7/0.50	21.3	23.8	28.1	1591	GMCW32
<b>FT5524CSSWA</b>	24 pair 1.5	15	7/0.50	24.3	26.8	32.1	1856	GMCW40
<b>FT5536CSSWA</b>	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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire.

**Bedding** Flame retardant 5V-90 PVC extruded non-hygroscopic.

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Overall Diameter over bedding  (mm)	Overall Diameter over Armour  (mm)	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)	Gland Size
<b>FT5001CSSWAIS</b>	1 pair 0.5	20	7/0.30	5.6	7.4	10.4	225	GMCW16 or GMCW20SS
<b>FT5002CSSWAIS</b>	2 pair 0.5	20	7/0.30	8.6	10.4	12.5	298	GMCW16 or GMCW20SS
<b>FT5004CSSWAIS</b>	4 pair 0.5	20	7/0.30	9.8	11.6	14.5	358	GMCW20S
<b>FT5006CSSWAIS</b>	6 pair 0.5	20	7/0.30	10.6	12.4	15.5	440	GMCW20S
<b>FT5008CSSWAIS</b>	8 pair 0.5	20	7/0.30	11.4	13.2	16.7	507	GMCW20
<b>FT5010CSSWAIS</b>	10 pair 0.5	20	7/0.30	13.3	15.1	18.7	592	GMCW25
<b>FT5012CSSWAIS</b>	12 pair 0.5	20	7/0.30	13.7	15.5	19.1	632	GMCW25
<b>FT5016CSSWAIS</b>	16 pair 0.5	20	7/0.30	15.4	17.2	21.3	763	GMCW25
<b>FT5020CSSWAIS</b>	20 pair 0.5	20	7/0.30	16.6	19.1	23.2	1006	GMCW25
<b>FT5024CSSWAIS</b>	24 pair 0.5	20	7/0.30	18.9	21.4	25.6	1150	GMCW25
<b>FT5036CSSWAIS</b>	36 pair 0.5	20	7/0.30	21.8	24.3	28.8	1449	GMCW32
<b>FT5102ESSWAIS</b>	1 pair 1.5	15	7/0.50	6.7	8.5	11.5	278	GMCW20S
<b>FT5502CSSWAIS</b>	2 pair 1.5	15	7/0.50	10.4	12.2	14.3	390	GMCW20S
<b>FT5504CSSWAIS</b>	4 pair 1.5	15	7/0.50	11.9	13.7	17.8	498	GMCW20
<b>FT5506CSSWAIS</b>	6 pair 1.5	15	7/0.50	13.2	15.0	18.3	651	GMCW20
<b>FT5508CSSWAIS</b>	8 pair 1.5	15	7/0.50	14.2	16.0	19.2	749	GMCW25
<b>FT5510CSSWAIS</b>	10 pair 1.5	15	7/0.50	16.7	19.2	22.5	1043	GMCW25
<b>FT5512CSSWAIS</b>	12 pair 1.5	15	7/0.50	17.3	19.8	23.8	1150	GMCW25
<b>FT5516CSSWAIS</b>	16 pair 1.5	15	7/0.50	19.4	21.9	26.0	1370	GMCW32
<b>FT5520CSSWAIS</b>	20 pair 1.5	15	7/0.50	21.3	23.8	28.1	1591	GMCW32
<b>FT5524CSSWAIS</b>	24 pair 1.5	15	7/0.50	24.3	26.8	32.1	1856	GMCW40
<b>FT5536CSSWAIS</b>	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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire.

**Bedding** Flame retardant 5V-90 PVC extruded non hygroscopic.

**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 3808, IEC 60332-1-2, IEC 60079.14, IEC 60332-3-22, **RoHS** Compliant.

Property	0.5mm <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Overall Diameter over bedding (mm)	Overall Diameter over Armour (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)	Gland Size
<b>FT5002ESCSWA</b>	2 pair 0.5	20	7/0.30	8	9.8	12.9	245	GMCW16 or GMCW20SS
<b>FT5004ESCSWA</b>	4 pair 0.5	20	7/0.30	10.5	12.3	14.3	340	GMCW20S
<b>FT5006ESCSWA</b>	6 pair 0.5	20	7/0.30	12.7	14.5	16.7	420	GMCW20
<b>FT5008ESCSWA</b>	8 pair 0.5	20	7/0.30	14.5	17.0	19.4	630	GMCW25S
<b>FT5010ESCSWA</b>	10 pair 0.5	20	7/0.30	15.9	18.4	20.9	710	GMCW25S
<b>FT5012ESCSWA</b>	12 pair 0.5	20	7/0.30	16.3	18.8	21.3	760	GMCW25S
<b>FT5016ESCSWA</b>	16 pair 0.5	20	7/0.30	20.2	23.4	26.3	1130	GMCW25
<b>FT5020ESCSWA</b>	20 pair 0.5	20	7/0.30	22.6	25.8	29.2	1304	GMCW32
<b>FT5024ESCSWA</b>	24 pair 0.5	20	7/0.30	23.5	26.7	30.1	1450	GMCW32
<b>FT5502ESCSWA</b>	2 pair 1.5	15	7/0.50	10.8	12.6	14.9	380	GMCW20S
<b>FT5504ESCSWA</b>	4 pair 1.5	15	7/0.50	14.5	17.0	19.6	680	GMCW25S
<b>FT5506ESCSWA</b>	6 pair 1.5	15	7/0.50	17.6	20.8	23.7	1010	GMCW25S
<b>FT5508ESCSWA</b>	8 pair 1.5	15	7/0.50	18.5	21.7	24.7	1130	GMCW25
<b>FT5510ESCSWA</b>	10 pair 1.5	15	7/0.50	22.4	25.6	28.9	1400	GMCW32
<b>FT5512ESCSWA</b>	12 pair 1.5	15	7/0.50	23.5	26.7	30.1	1540	GMCW32
<b>FT5516ESCSWA</b>	16 pair 1.5	15	7/0.50	28.2	31.4	35.3	1950	GMCW40
<b>FT5520ESCSWA</b>	20 pair 1.5	15	7/0.50	31.4	35.4	39.6	2550	GMCW40
<b>FT5524ESCSWA</b>	24 pair 1.5	15	7/0.50	34.3	39.3	44.0	3270	GMCW50S
<b>FT5536ESCSWA</b>	36 pair 1.5	15	7/0.50	42.0	47.0	52.2	4360	GMCW50
<b>FT5550ESCSWA</b>	50 pair 1.5	15	7/0.50	49.2	54.2	60.1	5550	GMCW63

# INSTRUMENTATION CABLES

## 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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with Tinned copper drain wire.

**Bedding** Flame retardant 5V-90 PVC extruded non hygroscopic.

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Overall Diameter over bedding  (mm)	Overall Diameter over Armour  (mm)	Approx. Overall Diameter  (mm <sup>2</sup> )	Approx. Weight  (Kg/Km)	Gland Size
<b>FT5002ESCSWAIS</b>	2 pair 0.5	20	7/0.30	8	9.8	12.9	245	GMCW16 or GMCW20SS
<b>FT5004ESCSWAIS</b>	4 pair 0.5	20	7/0.30	10.5	12.3	14.3	340	GMCW20S
<b>FT5006ESCSWAIS</b>	6 pair 0.5	20	7/0.30	12.7	14.5	16.7	420	GMCW20
<b>FT5008ESCSWAIS</b>	8 pair 0.5	20	7/0.30	14.5	17.0	19.4	630	GMCW25S
<b>FT5010ESCSWAIS</b>	10 pair 0.5	20	7/0.30	15.9	18.4	20.9	710	GMCW25S
<b>FT5012ESCSWAIS</b>	12 pair 0.5	20	7/0.30	16.3	18.8	21.3	760	GMCW25S
<b>FT5016ESCSWAIS</b>	16 pair 0.5	20	7/0.30	20.2	23.4	26.3	1130	GMCW25
<b>FT5020ESCSWAIS</b>	20 pair 0.5	20	7/0.30	22.6	25.8	29.2	1304	GMCW32
<b>FT5024ESCSWAIS</b>	24 pair 0.5	20	7/0.30	23.5	26.7	30.1	1450	GMCW32
<b>FT5502ESCSWAIS</b>	2 pair 1.5	15	7/0.50	10.8	12.6	14.9	380	GMCW20S
<b>FT5504ESCSWAIS</b>	4 pair 1.5	15	7/0.50	14.5	17.0	19.6	680	GMCW25S
<b>FT5506ESCSWAIS</b>	6 pair 1.5	15	7/0.50	17.6	20.8	23.7	1010	GMCW25S
<b>FT5508ESCSWAIS</b>	8 pair 1.5	15	7/0.50	18.5	21.7	24.7	1130	GMCW25
<b>FT5510ESCSWAIS</b>	10 pair 1.5	15	7/0.50	22.4	25.6	28.9	1400	GMCW32
<b>FT5512ESCSWAIS</b>	12 pair 1.5	15	7/0.50	23.5	26.7	30.1	1540	GMCW32
<b>FT5516ESCSWAIS</b>	16 pair 1.5	15	7/0.50	28.2	31.4	35.3	1950	GMCW40
<b>FT5520ESCSWAIS</b>	20 pair 1.5	15	7/0.50	31.4	35.4	39.6	2550	GMCW40
<b>FT5524ESCSWAIS</b>	24 pair 1.5	15	7/0.50	34.3	39.3	44.0	3270	GMCW50S
<b>FT5536ESCSWAIS</b>	36 pair 1.5	15	7/0.50	42.0	47.0	52.2	4360	GMCW50
<b>FT5550ESCSWAIS</b>	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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	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-hygroscopic polypropylene filler.
- Screening** Collective & individual shield of aluminium/polyester foil complete with tinned copper drain wire (7 strands of 0.2mm<sup>2</sup>).
- 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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)
<b>FT5302ESCS</b>	2 triple 0.5	20	7/0.30	10.0	117
<b>FT5303ESCS</b>	3 triple 0.5	20	7/0.30	11.1	127
<b>FT5304ESCS</b>	4 triple 0.5	20	7/0.30	11.6	140
<b>FT5306ESCS</b>	6 triple 0.5	20	7/0.30	14.0	200
<b>FT5308ESCS</b>	8 triple 0.5	20	7/0.30	16.4	260
<b>FT5310ESCS</b>	10 triple 0.5	20	7/0.30	18.1	310
<b>FT5312ESCS</b>	12 triple 0.5	20	7/0.30	18.5	360
<b>FT5316ESCS</b>	16 triple 0.5	20	7/0.30	22.3	470
<b>FT5320ESCS</b>	20 triple 0.5	20	7/0.30	26.3	658
<b>FT5324ESCS</b>	24 triple 0.5	20	7/0.30	31.3	760
<b>FT5336ESCS</b>	36 triple 0.5	20	7/0.30	32.7	1040
<b>FT5602ESCS</b>	2 triple 1.5	15	7/0.50	12.2	193
<b>FT5603ESCS</b>	3 triple 1.5	15	7/0.50	13.4	244
<b>FT5604ESCS</b>	4 triple 1.5	15	7/0.50	15.7	300
<b>FT5606ESCS</b>	6 triple 1.5	15	7/0.50	21.0	450
<b>FT5608ESCS</b>	8 triple 1.5	15	7/0.50	25.6	600
<b>FT5610ESCS</b>	10 triple 1.5	15	7/0.50	26.9	730
<b>FT5612ESCS</b>	12 triple 1.5	15	7/0.50	28.1	840
<b>FT5616ESCS</b>	16 triple 1.5	15	7/0.50	33.9	1150
<b>FT5620ESCS</b>	20 triple 1.5	15	7/0.50	36.9	1291
<b>FT5624ESCS</b>	24 triple 1.5	15	7/0.50	41.4	1700
<b>FT5636ESCS</b>	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-hygroscopic polypropylene filler.

**Screening** Collective shield of aluminium/polyester foil complete with tinned copper drain wire.

**Bedding** Flame retardant 5V-90 PVC extruded non hygroscopic.

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Overall Diameter over bedding  (mm)	Overall Diameter over Armour  (mm)	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)	Gland Size
<b>FT5301CSSWA</b>	1 triple 0.5	20	7/0.30	5.9	7.7	10.6	239	GMCW16 or GMCW20SS
<b>FT5302CSSWA</b>	2 triple 0.5	20	7/0.30	8.1	9.9	12.8	329	GMCW16 or GMCW20SS
<b>FT5304CSSWA</b>	4 triple 0.5	20	7/0.30	10.4	12.2	14.2	380	GMCW20S
<b>FT5306CSSWA</b>	6 triple 0.5	20	7/0.30	12.7	15.2	17.4	580	GMCW20
<b>FT5308CSSWA</b>	8 triple 0.5	20	7/0.30	14.4	16.9	19.3	690	GMCW25S
<b>FT5310CSSWA</b>	10 triple 0.5	20	7/0.30	16.1	18.6	21.2	790	GMCW25S
<b>FT5312CSSWA</b>	12 triple 0.5	20	7/0.30	16.3	18.8	21.4	850	GMCW25S
<b>FT5316CSSWA</b>	16 triple 0.5	20	7/0.30	20.2	23.4	26.2	1200	GMCW25
<b>FT5320CSSWA</b>	20 triple 0.5	20	7/0.30	22.4	25.6	28.9	1540	GMCW32
<b>FT5324CSSWA</b>	24 pair 0.5	20	7/0.30	24.7	27.9	31.4	1680	GMCW32
<b>FT5336CSSWA</b>	36 triple 0.5	20	7/0.30	29.8	32.9	36.6	2200	GMCW40
<b>FT5103ESSWA</b>	1 triple 1.5	15	7/0.50	7.0	8.8	11.7	303	GMCW16 or GMCW20SS
<b>FT5602CSSWA</b>	2 triple 1.5	15	7/0.50	9.9	11.7	14.6	437	GMCW20S
<b>FT5604CSSWA</b>	4 triple 1.5	15	7/0.50	14.9	17.4	20.0	760	GMCW25S
<b>FT5606CSSWA</b>	6 triple 1.5	15	7/0.50	18.1	21.3	24.2	1130	GMCW25S
<b>FT5608CSSWA</b>	8 triple 1.5	15	7/0.50	18.5	21.7	24.7	1150	GMCW25
<b>FT5610CSSWA</b>	10 triple 1.5	15	7/0.50	23.1	26.3	29.6	1680	GMCW32
<b>FT5612CSSWA</b>	12 triple 1.5	15	7/0.50	25.3	28.5	32.0	2210	GMCW32
<b>FT5616CSSWA</b>	16 triple 1.5	15	7/0.50	28.8	32.0	35.5	2840	GMCW40
<b>FT5620CSSWA</b>	20 triple 1.5	15	7/0.50	31.8	35.0	38.5	3470	GMCW40S
<b>FT5624CSSWA</b>	24 triple 1.5	15	7/0.50	35.4	40.4	45.0	3790	GMCW50S
<b>FT5636CSSWA</b>	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-hygroscopic 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 hygroscopic.

**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 <sup>2</sup>		1.5mm <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding  No. of wires x mm <sup>2</sup>	Overall Diameter over bedding  (mm)	Overall Diameter over Armour  (mm)	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)	Gland Size
<b>FT5302ESCSWA</b>	2 triple 0.5	20	7/0.30	9.6	11.4	13.6	240	GMCW20S
<b>FT5304ESCSWA</b>	4 triple 0.5	20	7/0.30	11.6	13.4	15.6	410	GMCW20S
<b>FT5306ESCSWA</b>	6 triple 0.5	20	7/0.30	14.0	16.5	19.0	640	GMCW20
<b>FT5308ESCSWA</b>	8 triple 0.5	20	7/0.30	16.4	18.9	21.6	780	GMCW25S
<b>FT5310ESCSWA</b>	10 triple 0.5	20	7/0.30	16.7	19.2	21.9	850	GMCW25S
<b>FT5312ESCSWA</b>	12 triple 0.5	20	7/0.30	18.5	21.7	24.7	1100	GMCW25S
<b>FT5316ESCSWA</b>	16 triple 0.5	20	7/0.30	22.3	25.5	28.5	1350	GMCW32
<b>FT5320ESCSWA</b>	20 triple 0.5	20	7/0.30	24.9	28.1	31.6	1560	GMCW32
<b>FT5324ESCSWA</b>	24 pair 0.5	20	7/0.30	27.9	31.1	34.6	1800	GMCW40
<b>FT5336ESCSWA</b>	36 triple 0.5	20	7/0.30	31.1	35.1	39.2	2600	GMCW40
<b>FT5602ESCSWA</b>	2 triple 1.5	15	7/0.50	12.7	15.2	17.8	400	GMCW20
<b>FT5604ESCSWA</b>	4 triple 1.5	15	7/0.50	15.7	18.2	20.8	800	GMCW25S
<b>FT5606ESCSWA</b>	6 triple 1.5	15	7/0.50	22.8	26.0	29.3	1400	GMCW32
<b>FT5608ESCSWA</b>	8 triple 1.5	15	7/0.50	25.6	28.8	32.4	1660	GMCW32
<b>FT5610ESCSWA</b>	10 triple 1.5	15	7/0.50	26.3	29.5	33.2	1800	GMCW40
<b>FT5612ESCSWA</b>	12 triple 1.5	15	7/0.50	27.2	30.4	33.9	1920	GMCW40
<b>FT5616ESCSWA</b>	16 triple 1.5	15	7/0.50	27.9	31.1	34.6	2180	GMCW40
<b>FT5620ESCSWA</b>	20 triple 1.5	15	7/0.50	31.4	36.2	40.7	2600	GMCW40
<b>FT5624ESCSWA</b>	24 triple 1.5	15	7/0.50	34.2	39.2	43.7	3800	GMCW50S
<b>FT5636ESCSWA</b>	36 triple 1.5	15	7/0.50	41.9	46.9	52.0	4350	GMCW50S

# INSTRUMENTATION CABLES

## 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-hygroscopic 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 <sup>2</sup>	
	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 <sup>2</sup> )	Nearest AWG	Approx. Stranding No. of wires x mm <sup>2</sup>	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
<b>FT65102ES</b>	1 pair 1.5	15	7/0.50	10.0	63
<b>FT65502ESCS</b>	2 pair 1.5	15	7/0.50	11.6	123
<b>FT65504ESCS</b>	4 pair 1.5	15	7/0.50	14.0	209
<b>FT65103ES</b>	1 triple 1.5	15	7/0.50	10.4	80

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