



## DATA, AUDIO & COMMUNICATION CABLES

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## FT81 SERIES

High Performance BMS/Control  
Overall Foil Screened Tinned Cable  
110VAC 90°C



### APPLICATIONS:

**BMS** Used for building management systems and cabling for HVAC controls.

**Audio** Oxygen free copper for audio applications, PA systems and security gate intercoms.

### PRODUCT FEATURES:

- ▶ Fine stranded tinned copper conductor
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Heat, oil and chemical resistant *(See Technical Section)*

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded (Class 2).

**Insulation** PE Polyethylene.

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

**Sheath** SPVC 5V-90.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -20°C to 75°C.

**Maximum Conductor Temperature** 75°C.

**Rated Voltage** 110V RMS.

**Minimum Bending Radius** Fixed 7.5 x cable diameter.

**Sheath Colour** Black.

**Standard Core Colour**

1 Pair - Black & Natural.

1 Triple - Black, Red & Natural.

**Relevant Standards** AS/NZS 3808, AS/NZS 3008, IEC 60332-1-2,

**RoHS** Compliant.

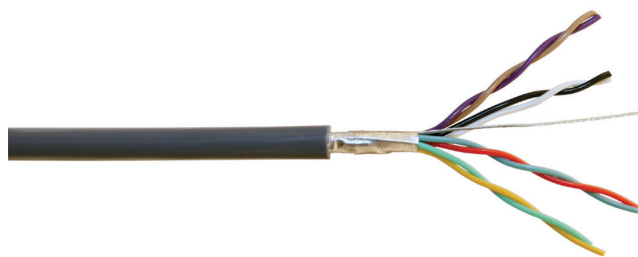
| Electrical Characteristics                        |       |          |
|---|-------|----------|
| Property  | Value | Unit     |
| <b>DC Conductor Resistance @ 20°C</b>             | 2.57  | Ω/100m   |
| <b>Capacitance between wires of a pair/triple</b> | 79    | pF/m     |
| <b>Minimum Insulation Resistance @ 20°C</b>       | 500   | M Ω/100m |

| Code               | No. of Cores<br>x Size<br>(mm <sup>2</sup> ) | Approx.<br>Stranding<br>No. of wires x mm <sup>2</sup> | Approx. Overall Diameter<br>(mm) | Approx.<br>Weight<br>(Kg/Km) |
|--------------------|--|--|----------------------------------|------------------------------|
| <b>FT8101CSBMS</b> | 1 pair 0.81                                  | 16/0.25  | 5.6                              | 46                           |
| <b>FT8103CSBMS</b> | 1 triple 0.81                                | 16/0.25  | 6.4                              | 65                           |



## FT95-CS SERIES

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



### APPLICATIONS:

**BUS Systems** High performance, extra low capacitance cable suitable for RS232 building and home BUS automation systems.

**Data** Suitable for connecting data terminal and data communication equipment.

**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:

- ▶ Tinned copper conductors
- ▶ Extremely pliable PVC sheath
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ 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).

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

**Sheath** Special SPVC V-90 (available in LSHF on request).

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -20°C to 90°C.

**Maximum Conductor Temperature** 90°C.

**Rated Voltage** 110VRMS/150VDC.

**Minimum Bending Radius** 10 x cable diameter.

**Sheath Colour** Grey.

**Standard Core Colours** Each pair (See Technical Section – Core Colours Chart C)

**Relevant Standards** AS/NZS 3808, IEC 60332-1-2,

**RoHS** Compliant.

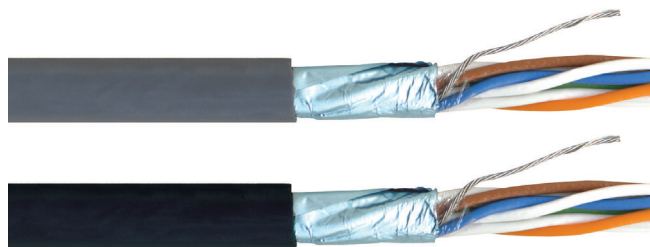
| Electrical Characteristics                  |          |       |         |
|---|----------|-------|---------|
| Property                                    |          | Value | Unit    |
| <b>DC Conductor Resistance</b>              | @ 20°C   | 89    | Ω/km    |
| <b>Capacitance between wires of a pair</b>  |          | 95    | pF/m    |
| <b>Cross-talk attenuation Between Pairs</b> | @ 1kHz   | >70   | dB/100m |
|   | @ 100kHz | >45   | dB/100m |
| <b>Characteristic Impedance</b>             | @ 1kHz   | 95    | Ω       |
| <b>Attenuation of a Pair</b>                | @ 1kHz   | 0.20  | dB/100m |
|   | @ 10kHz  | 0.60  | dB/100m |
|   | @ 100kHz | 1.20  | dB/100m |
|   | @ 150kHz | 1.50  | dB/100m |
|   | @ 1.0MHz | 4.40  | dB/100m |
|   | @ 1.5MHz | 5.40  | dB/100m |

| Code     | No. of Cores<br>x Size<br>(mm <sup>2</sup> ) | Nearest<br>AWG | Approx.<br>Stranding<br>No. of wires x mm <sup>2</sup> | Approx.<br>Overall Diameter<br>(mm <sup>2</sup> ) | Approx.<br>Weight<br>(Kg/Km) |
|----------|--|----------------|--|---|------------------------------|
| FT9501CS | 1 pair 0.22                                  | 24             | 7/0.20   | 4.0   | 22.4                         |
| FT9502CS | 2 pair 0.22                                  | 24             | 7/0.20   | 5.1   | 32.0                         |
| FT9503CS | 3 pair 0.22                                  | 24             | 7/0.20   | 5.8   | 41.9                         |
| FT9504CS | 4 pair 0.22                                  | 24             | 7/0.20   | 6.4   | 51.1                         |
| FT9506CS | 6 pair 0.22                                  | 24             | 7/0.20   | 7.6   | 71.4                         |
| FT9509CS | 9 pair 0.22                                  | 24             | 7/0.20   | 8.8   | 95.9                         |
| FT9512CS | 12 pair 0.22                                 | 24             | 7/0.20   | 10.0  | 124.0                        |
| FT9518CS | 18 pair 0.22                                 | 24             | 7/0.20   | 12.0  | 180.4                        |
| FT9525CS | 25 pair 0.22                                 | 24             | 7/0.20   | 13.8  | 237.9                        |

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.

## FT20-CS SERIES

**High Performance Multipair  
Overall Foil Screened Tinned Data  
Cable 110V 90°C**



### APPLICATIONS:

**BUS Systems** High performance, extra low capacitance cable suitable for RS232, RS422 POS, building and home BUS automation systems.

**Data** Suitable for connecting data terminal and data communication equipment.

**E.L.V Signal and Controls** (Does not exceed 50V AC or 120V DC Ripple Free) E.L.V 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:

- ▶ Tinned copper conductors
- ▶ Extremely pliable PVC sheath
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Extra low capacitance polyethylene insulation for extended pair operation
- ▶ Heat, oil and chemical resistant (See Technical Section)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded (Class 2).

**Insulation** Polypropylene (available in LSHF on request).

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

**Sheath** Special SPVC V-90 (available in LSHF on request).

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -20°C to 90°C.

**Maximum Conductor Temperature** 90°C.

**Rated Voltage** 110VRMS/150VDC.

**Minimum Bending Radius** 10 x cable diameter.

**Sheath Colour** Grey, Black.

**Standard Core Colours** Each pair – (See Technical Section – Core Colours Chart B).

**Relevant Standards** AS/NZS 3808, **RoHS** Compliant.

#### Electrical Characteristics

| Property                                    |          | Value | Unit    |
|---|----------|-------|---------|
| <b>DC Conductor resistance</b>              | @ 20°C   | 89    | Ω/km    |
| <b>Capacitance between wires of a pair</b>  |          | 50    | pF/m    |
| <b>Cross-talk attenuation between pairs</b> | @ 1kHz   | >90   | dB/100m |
|   | @ 100kHz | >50   | dB/100m |
| <b>Characteristic Impedance</b>             | @ 1kHz   | 135   | Ω       |
| <b>Attenuation of a pair</b>                | @ 1kHz   | 0.15  | dB/100m |
|   | @ 10kHz  | 0.42  | dB/100m |
|   | @ 100kHz | 0.80  | dB/100m |
|   | @ 150kHz | 0.90  | dB/100m |
|   | @ 1.0MHz | 1.90  | dB/100m |
|   | @ 1.5MHz | 2.40  | dB/100m |

| Code     | No. of Cores<br>x Size<br>(mm <sup>2</sup> ) | Nearest<br>AWG | Approx.<br>Stranding<br>No. of<br>wires x mm <sup>2</sup> | Approx.<br>Overall Diameter<br>(mm) | Approx.<br>Weight<br>(Kg/Km) |
|----------|--|----------------|---|-------------------------------------|------------------------------|
| FT2001CS | 1 pair 0.22                                  | 24             | 7/0.20  | 4.2                                 | 22.9                         |
| FT2002CS | 2 pair 0.22                                  | 24             | 7/0.20  | 5.6                                 | 40.9                         |
| FT2003CS | 3 pair 0.22                                  | 24             | 7/0.20  | 6.2                                 | 48.4                         |
| FT2004CS | 4 pair 0.22                                  | 24             | 7/0.20  | 6.7                                 | 57.9                         |
| FT2005CS | 5 pair 0.22                                  | 24             | 7/0.20  | 8.4                                 | 74.1                         |
| FT2006CS | 6 pair 0.22                                  | 24             | 7/0.20  | 7.9                                 | 83.5                         |
| FT2008CS | 8 pair 0.22                                  | 24             | 7/0.20  | 8.5                                 | 99.0                         |
| FT2010CS | 10 pair 0.22                                 | 24             | 7/0.20  | 10.1                                | 120.1                        |
| FT2012CS | 12 pair 0.22                                 | 24             | 7/0.20  | 10.8                                | 133.9                        |
| FT2018CS | 18 pair 0.22                                 | 24             | 7/0.20  | 12.8                                | 179.7                        |
| FT2025CS | 25 pair 0.22                                 | 24             | 7/0.20  | 15.1                                | 236.1                        |

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## FT20-ESCS SERIES

**High Performance Multipair Overall & Individually Foil Screened Tinned Data Cable 110V 90°C**

### APPLICATIONS:

**BUS Systems** High performance, extra low capacitance cable suitable for RS485, RS422 POS, building and home BUS automation systems.

**Data** Suitable for connecting data terminal and data communication equipment.

**E.L.V Signal and Controls** (Does not exceed 50V AC or 120V DC Ripple Free) E.L.V 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:

- ▶ Tinned copper conductors
- ▶ Extremely pliable PVC sheath
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Extra low capacitance polyethylene insulation for extended pair operation
- ▶ Heat, oil and chemical resistant (See Technical Section)

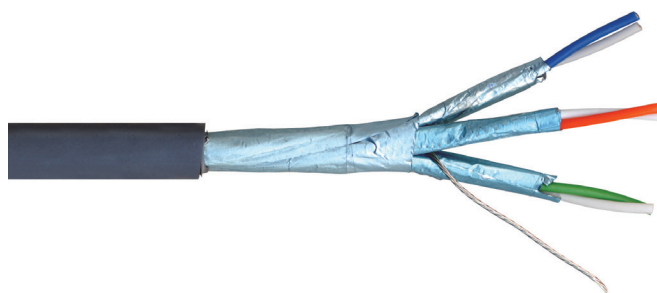
### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded (Class 2).

**Insulation** Polypropylene (available in LSHF on request).

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

**Sheath** Special SPVC V-90 (available in LSHF on request).



### CHARACTERISTICS:

**Operating Temperature Range** Fixed -20°C to 90°C.

**Maximum Conductor Temperature** 90°C.

**Rated Voltage** 110VRMS/150VDC.

**Minimum Bending Radius** 10 x cable diameter.

**Sheath Colour** Grey, Black.

**Standard Core Colours** Each pair – (See Technical Section – Core Colours Chart B).

**Relevant Standards** AS/NZS 3808, **RoHS** Compliant.

| Electrical Characteristics           |          |       |         |
|--------------------------------------|----------|-------|---------|
| Property                             |          | Value | Unit    |
| DC Conductor Resistance              | @ 20°C   | 89    | Ω/km    |
| Capacitance between wires of a pair  |          | 68    | pF/m    |
| Cross-talk attenuation Between Pairs | @ 1kHz   | >100  | dB/100m |
|                                      | @ 100kHz | >80   | dB/100m |
| Characteristic Impedance             | @ 1kHz   | 115   | Ω       |
| Attenuation of a Pair                | @ 1kHz   | 0.20  | dB/100m |
|                                      | @ 10kHz  | 0.50  | dB/100m |
|                                      | @ 100kHz | 1.00  | dB/100m |
|                                      | @ 150kHz | 1.30  | dB/100m |
|                                      | @ 1.0MHz | 3.60  | dB/100m |
|                                      | @ 1.5MHz | 4.60  | dB/100m |

| Code       | No. of Cores x Size<br>(mm <sup>2</sup> ) | Nearest AWG | Approx. Stranding<br>No. of wires x mm <sup>2</sup> | Approx. Overall Diameter<br>(mm) | Approx. Weight<br>(Kg/Km) |
|------------|---|-------------|---|----------------------------------|---------------------------|
| FT2002ESCS | 2 pair 0.22                               | 24          | 7/0.20  | 6.7                              | 46.5                      |
| FT2003ESCS | 3 pair 0.22                               | 24          | 7/0.20  | 7.6                              | 56.1                      |
| FT2004ESCS | 4 pair 0.22                               | 24          | 7/0.20  | 8.3                              | 66.8                      |
| FT2005ESCS | 5 pair 0.22                               | 24          | 7/0.20  | 9.8                              | 85.6                      |
| FT2006ESCS | 6 pair 0.22                               | 24          | 7/0.20  | 10.7                             | 97.4                      |
| FT2008ESCS | 8 pair 0.22                               | 24          | 7/0.20  | 10.7                             | 117.2                     |
| FT2010ESCS | 10 pair 0.22                              | 24          | 7/0.20  | 11.4                             | 141.9                     |
| FT2012ESCS | 12 pair 0.22                              | 24          | 7/0.20  | 12.4                             | 159.9                     |
| FT2018ESCS | 18 pair 0.22                              | 24          | 7/0.20  | 15.3                             | 218.5                     |
| FT2025ESCS | 25 pair 0.22                              | 24          | 7/0.20  | 17.4                             | 312.2                     |

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## HCG3 SERIES

High Performance Flexible Overall  
Foil Screened Cable  
110V 75°C



### APPLICATIONS:

**BUS Systems** Extra low capacitance cable suitable for RS232, RS423 and building and home BUS automation systems.

**Audio** Oxygen free copper for audio controls.

**E.L.V Signal and Controls** (Does not exceed 50V AC or 120V DC Ripple Free) Fixed wiring E.L.V power control or signal cables on machines, conveying equipment, instrumentation or similar industrial applications.

**Marine** Tinned copper conductors for use in marine applications.

### PRODUCT FEATURES:

- ▶ Tinned fine stranded copper conductor
- ▶ High flexibility
- ▶ Prevents external interference
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Heat, oil and chemical resistant (*See Technical Section*)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5).

**Insulation** Special SPVC.

**Screening** Collective shield of aluminium/polyester foil c/w tinned copper drain wire.

**Sheath** Special SPVC.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -20°C to 75°C.

**Maximum Conductor Temperature** 75°C.

**Rated Voltage** 110VRMS/150VDC.

**Minimum Bending Radius** Fixed 10 x cable diameter.

**Sheath Colour** Grey.

**Standard Core Colours** (*See Technical Section - Core Colours chart A*)

**Resistance** Maximum 38.20 ohms/Km @ 20°C.

**Capacitance** Nominal wire to wire pF/M150.

**Relevant Standards** AS/NZS 1125, IEC 60332-1,

**RoHS** Compliant.

| Code   | No. of Cores<br>x Size<br><br>(mm <sup>2</sup> ) | Nearest<br>AWG | Approx.<br>Stranding<br><br>No. of<br>wires x mm <sup>2</sup> | Approx.<br>Overall Diameter<br><br>(mm) | Approx.<br>Weight<br><br>(Kg/Km) |
|--------|--|----------------|---|---|----------------------------------|
| HCG304 | 4 x 0.5  | 20             | 16/0.20   | 5.7                                     | 57                               |
| HCG306 | 6 x 0.5  | 20             | 16/0.20   | 7.1                                     | 78                               |