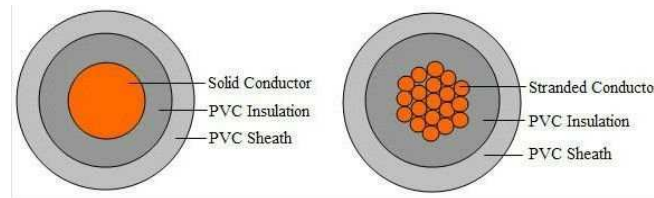


## Equipment Wire

### Introduction.

Equipment wire comes in two forms, Solid wire is composed of a single piece of metal wire, also known as a strand. Stranded wire is composed of many pieces of solid wire all bundled into one group. Stranded wire is much more flexible than solid wire of equal size. Conversely, solid wire is used when little or no movement is needed.



The method of describing wire appears at first complicated, but in fact is very simple once you know. The first number refers to the number of strands, the second number refers to the diameter of each strand in millimetres. For example 16/0.2mm is 16 strands of 0.2mm wire, or 1/0.6mm is 1 strand of 0.6mm wire. In general the more strands the wire has the higher the current carrying capability.

In a Model Rail system your individual pieces of equipment may all use the same voltage, but will probably all have different current requirements. This is why we concentrate on the current rating of the wire, and not so much the voltage. When you run 2 or more pieces of equipment you must add the current used by each piece together and then check that the wire you will use can carry this amount of current.

Here is a list of the most commonly used wires with their current ratings.

### 1/0.254(0.02mm sq)

Single strand wire it stays in its formed shape without cable ties

Availability: 50m Roll or 4m Spool.

Colours: See chart below

Rating: 0.5 A @ 1,000V RMS max

O/D: 0.55 mm nominal

Wall cover: PVC 0.15 mm to MIL-W-81822/13; UL 1516 and 1523

Primary use: Inside signals and Locomotive, anywhere space is at a premium.

500mA

Rolls: CB700-CB709

Spools: CB720-CB729

### 1/0.6(0.02mm sq)

Single strand wire it stays in its formed shape without cable ties

Availability: 100m Roll or 10m Spool.

Colour: See chart below

Rating: 1.8 A @ 1,000V RMS max

O/D: 1.2 mm nominal

Wall cover: PVC 0.3 mm to DEF61-12 Type 2

Primary Use: Individual points and signals.

1.8A

Rolls: CB058-CB065

Spools: CB070-CB078

### 7/0.2(0.02mm sq)

Multistrand wire, it requires cable ties to hold in place.

Availability: 100m Roll or 20m Spool.

Colour: See chart below

Rating: 1.4 A @ 1,000V RMS max

O/D: 1.2 mm nominal

Wall cover: PVC 0.3 mm to DEF61-12 Type 2

Primary Use: Individual points and signals.

1.4A

Rolls: CB101-CB109

Spools: CB020-CB029

### 16/0.2(0.5mm sq)

3.0A

Multistrand wire, it requires cable ties to hold in place.  
Availability: 100m Roll or 10m Spool.  
Colour: See Chart below  
Rating: 3.0 A @ 1,000V RMS max  
O/D: 1.6 mm nominal  
Wall cover: PVC 0.3 mm to DEF61-12 Type 2  
Primary Use: Multiple points, Capacitor Discharge units

Rolls: CB120-CB131  
Spools: CB132-CB143

### **24/0.2(0.75mm sq)**

Multistrand wire, it requires cable ties to hold in place.  
Availability: 100m Roll or 10m Spool.  
Colour: See chart below  
Rating: 4.5 A @ 1,000V RMS max  
O/D: 2.3 mm nominal  
Wall cover: PVC 0.6 mm to DEF61-12 Type 2  
Primary Use: Multiple points, Capacitor Discharge units, Bus bars.

4.5A  
Rolls: CB144-CB154  
Spools: CB155-CB165

### **32/0.2(1.0mm sq)**

Multistrand wire, it requires cable ties to hold in place.  
Availability: 100m Roll or 10m Spool.  
Colour: See chart below  
Rating: 6.0 A @ 1,000V RMS max  
O/D: 2.6 mm nominal  
Wall cover: PVC 0.3 mm to DEF61-12 Type 2  
Primary Use: Bus Bars

6.0A  
Rolls: CB180-CB189  
Spools: CB191-CB199b

### **7/0.2(0.02mm sq) Multicore Cable**

This cable is available in 4 core, 6 core, 8 core, 12 core, 18 core, 25 core.

Multicore wire, it requires cable ties to hold in place.

Availability: 100m Roll or by the metre.  
Colour: See chart below  
Rating: 1.4 A @ 1,000V RMS max per core  
O/D: 4c = 3.5mm, 6c = 4.1mm, 8c = 4.6mm, 12c = 6.0mm, 18c = 7.3mm, 25c = 8.7mm  
Wall cover: PVC 0.3 mm to DEF61-12 Type 2  
Primary Use: Individual points and signals, General data transfer.

1.4A per core  
Roll: CB599-CB641  
Metre: CB598-CB640

### **16/0.2(0.5mm sq) Multicore Cable**

This cable is available in 3 core,

Multicore wire, it requires cable ties to hold in place.

Availability: 100m Roll or by the metre.  
Colour: See chart below  
Rating: 1.6 A @ 1,000V RMS max per core  
O/D: 3c = 5.3mm  
Wall cover: PVC 0.3 mm to DEF61-12 Type 2  
Primary Use: Individual points and signals, General data transfer.

1.6A per core  
Roll: CB650  
Metre: CB651

### **7/0.2(0.02mm sq) Multicore Overall Screened Cable**

This cable is available in 4 core, 12 core.

Multicore wire, it requires cable ties to hold in place.

Availability: 100m Roll or by the metre.  
Colour: See chart below  
Rating: 1.4 A @ 1,000V RMS max per core  
O/D: 6c = 6.0mm, 12c = 6.8mm  
Wall cover: PVC 0.3 mm to DEF61-12 Type 2  
Primary Use: Used for data transfer and the screening will shield against RF interference.

1.2A per core  
Roll: CB637-640  
Metre: CB638-641

	BLACK	RED	GREY	BLUE	BROWN	YELLOW	GREEN	WHITE	ORANGE	GREEN/ YELLOW	VIOLET	PINK
<b>1/0.254mm Single Core Wire (500mAmps)</b>												
4m	CB721	CB720	CB728	CB724	CB723	CB726	CB722	CB725	CB727		CB729	
50M	CB701	CB700	CB708	CB704	CB703	CB706	CB702	CB705	CB707		CB709	
<b>1/0.6mm Single Core Wire (1.8 Amps)</b>												
10m	CB072	CB076	CB071	CB073	CB070	CB077	CB074	CB078	CB075			
100M	CB060	CB064	CB059	CB061	CB058	CB066	CB062	CB065	CB063			
<b>7/0.2mm Stranded Wire (1.4 Amps)</b>												
20m	CB021	CB020	CB026	CB027	CB023	CB025	CB022	CB024	CB028		CB029	
100M	CB102	CB104	CB106	CB105	CB101	CB107	CB103	CB109	CB108		CB099	
<b>16/0.2mm Stranded Wire (3.0 Amps)</b>												
10m	CB132	CB133	CB134	CB135	CB136	CB137	CB138	CB139	CB142	CB140	CB141	CB143
100M	CB120	CB121	CB122	CB123	CB124	CB125	CB126	CB127	CB130	CB128	CB129	CB131
<b>24/0.2mm Stranded Wire (4.5 Amps)</b>												
10m	CB156	CB155	CB164	CB157	CB161	CB159	CB158	CB160	CB163		CB162	CB165
100M	CB145	CB144	CB153	CB146	CB150	CB148	CB147	CB149	CB152		CB151	CB154
<b>32/0.2mm Stranded Wire (10 Amps)</b>												
10m	CB192	CB191	CB199	CB195	CB194	CB198	CB193	CB197	CB196		CB199B	CB199A
100M	CB181	CB180	CB188	CB184	CB183	CB187	CB182	CB186	CB185		CB190	CB189

### Multicore Cables

Where there are 2 colours on the strand the base colour is the first colour and the strip is the second colour

Colour	3 Core	4 Core	6 Core	8 Core	12 Core	18 Core	25 Core
Red	X	X	X	X	X	X	X
Black	X	X	X	X	X	X	X
Yellow		X	X	X	X	X	X
Blue	X	X	X	X	X	X	X
White			X	X	X	X	X
Green			X	X	X	X	X
Brown				X	X	X	X
Orange				X	X	X	X
Grey					X	X	X
Pink					X	X	X
Purple					X	X	X
Turquoise					X	X	X
White/Red						X	X
Yellow/Red						X	X
Green/Red						X	X
Red/Blue						X	X
Red/Brown						X	X
Red/Black						X	X
Grey/Blue							X
Yellow/Green							X
White/Blue							X
Orange /Blue							X
Blue/Black							X