

# Equipment Wire

## Tri Rated

pro-POWER



### Application:

High temperature, flame retardant wire designed for use in switch control, relay and instrumentation panels for power, switch gear and for purposes such as internal connectors in equipment, motor starters and controllers

### Insulation Colours:

Black, Red, Blue, Yellow, Green/Yellow, Grey, Brown, Orange, White, Violet, Pink, Light Blue, Green

### Standards:

BS6231 Type CK

### Conductor:

Class 5 flexible plain copper conductor to BS EN 60228:2005 (previously BS6360)

### Insulation:

PVC

### Voltage Rating:

BS6231 : 600/1,000V

### Temperature Rating:

BS6231 : 90°C/105°C for 15,000 hours

### Minimum Bending Radius:

6 × OD

### Dimensions:

Nominal Cross Sectional (mm <sup>2</sup> )	AWG	Stranding	Nominal Thickness of Insulation (mm)	Nominal Overall Diameter (mm)	Nominal Weight kg/Km
0.5	22	16mm × 0.2mm	0.80	2.55	12
0.75	20	24mm × 0.2mm	0.80	2.75	15
1	18	32mm × 0.2mm	0.80	2.90	18
1.5	16	30mm × 0.25mm	0.80	3.15	23
2.5	14	50mm × 0.25mm	0.80	3.60	34
4	12	56mm × 0.3mm	0.80	4.15	48
6	10	84mm × 0.3mm	0.80	4.70	67
10	8	80mm × 0.4mm	1.14	6.40	119
16	6	126mm × 0.4mm	1.52	8.45	187
25	4	196mm × 0.4mm	1.52	9.60	291

www.element14.com  
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www.cpc.co.uk

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### Conductors:

Class 5 flexible Copper Conductors for Single Core and Multi-Core cable

Nominal Cross Sectional Area mm <sup>2</sup>	Maximum Diameter of Wires in Conductor (mm)	Maximum Resistance of Conductor at 20°C Plain Wires (Ω/km)
0.5	0.21	39
0.75	0.21	26
1	0.21	19.5
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78

Table in accordance with BS EN 60228:2005 (previously BS6360)

### Electrical Characteristics:

Current Carrying Capacity (amperes) and Voltage Drop (per ampere per metre)

Nominal Cross Sectional Area mm <sup>2</sup>	Current Rating Amps	Voltage Drop mV/A/m
0.5	11	46
0.75	14	31
1	17	22
1.5	21	15
2.5	30	9.1
4	41	5.7
6	53	3.8
10	75	2.2
16	100	1.4
25	136	0.89

Current ratings are based on a conductor operating temperature of 85°C and an ambient air temperature of 45°C and assumes single cable isolated in free air.

### Correction Factors:

Ambient Temperature	45°C	50°C	55°C	60°C	65°C	70°C	75°C
Reduction Factor	1	0.97	0.9	0.82	0.73	0.63	0.52

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Where Cables are to be grouped, the following factors should be applied :

Number of cables in group	2	3	4	5	6	7	8
Reduction Factor	0.8	0.7	0.65	0.6	0.56	0.53	0.5

### Part Number Table

Description	Part Number
Wire, Tri Rated, 100m, Black, 22AWG	4155
Wire, Tri Rated, 100m, Blue, 22AWG	4156
Wire, Tri Rated, 100m, Brown, 22AWG	4157
Wire, Tri Rated, 100m, Violet, 22AWG	4158
Wire, Tri Rated, 100m, Red, 22AWG	4159
Wire, Tri Rated, 100m, Orange, 22AWG	4160
Wire, Tri Rated, 100m, White, 22AWG	4161
Wire, Tri Rated, 100m, Grey, 22AWG	4162
Wire, Tri Rated, 100m, Yellow, 22AWG	4163
Wire, Tri Rated, 100m, GRN/YEL, 22AWG	4164
Wire, Tri Rated, 100m, Pink, 22AWG	4165
Wire, Tri Rated, 100m, Light Blue, 22AWG	4166
Wire, Tri Rated, 100m, Green, 22AWG	PP000410
Wire, Tri Rated, 100m, Black, 20AWG	4167
Wire, Tri Rated, 100m, Blue, 20AWG	4168
Wire, Tri Rated, 100m, Brown, 20AWG	4169
Wire, Tri Rated, 100m, Violet, 20AWG	4170
Wire, Tri Rated, 100m, Red, 20AWG	4171
Wire, Tri Rated, 100m, Grey, 20AWG	4172
Wire, Tri Rated, 100m, White, 20AWG	4173
Wire, Tri Rated, 100m, Pink, 20AWG	4174
Wire, Tri Rated, 100m, GRN/YEL, 20AWG	4175
Wire, Tri Rated, 100m, Yellow, 20AWG	4176
Wire, Tri Rated, 100m, Orange, 20AWG	4177
Wire, Tri Rated, 100m, Light Blue, 20AWG	4178
Wire, Tri Rated, 100m, Green, 20AWG	PP000411
Wire, Tri Rated, 100m, GRN/YEL, 18AWG	4179
Wire, Tri Rated, 100m, Black , 18AWG	4180
Wire, Tri Rated, 100m, Brown, 18AWG	4181
Wire, Tri Rated, 100m, White, 18AWG	4182
Wire, Tri Rated, 100m, Red, 18AWG	4183
Wire, Tri Rated, 100m, Yellow, 18AWG	4184

Description	Part Number
Wire, Tri Rated, 100m, Blue, 18AWG	4185
Wire, Tri Rated, 100m, Grey, 18AWG	4186
Wire, Tri Rated, 100m, Orange, 18AWG	4187
Wire, Tri Rated, 100m, Violet, 18AWG	4189
Wire, Tri Rated, 100m, Pink, 18AWG	4190
Wire, Tri Rated, 100m, Light Blue, 18AWG	4191
Wire, Tri Rated, 100m, Green, 18AWG	PP000412
Wire, Tri Rated, 100m, Blue, 16AWG	4192
Wire, Tri Rated, 100m, Pink, 16AWG	4193
Wire, Tri Rated, 100m, Black, 16AWG	4194
Wire, Tri Rated, 100m, Brown, 16AWG	4195
Wire, Tri Rated, 100m, Red, 16AWG	4196
Wire, Tri Rated, 100m, White, 16AWG	4197
Wire, Tri Rated, 100m, Yellow, 16AWG	4198
Wire, Tri Rated, 100m, Orange, 16AWG	4199
Wire, Tri Rated, 100m, Grey, 16AWG	4200
Wire, Tri Rated, 100m, GRN/YEL, 16AWG	4201
Wire, Tri Rated, 100m, Light Blue, 16AWG	4202
Wire, Tri Rated, 100m, Violet, 16AWG	PP000413
Wire, Tri Rated, 100m, Green, 16AWG	PP000414
Wire, Tri Rated, 100m, White, 14AWG	4203
Wire, Tri Rated, 100m, Orange, 14AWG	4204
Wire, Tri Rated, 100m, Blue, 14AWG	4205
Wire, Tri Rated, 100m, Black, 14AWG	4206
Wire, Tri Rated, 100m, Brown, 14AWG	4207
Wire, Tri Rated, 100m, Red, 14AWG	4208
Wire, Tri Rated, 100m, Yellow, 14AWG	4209
Wire, Tri Rated, 100m, Grey, 14AWG	4210
Wire, Tri Rated, 100m, GRN/YEL, 14AWG	4211
Wire, Tri Rated, 100m, Violet, 14AWG	4212
Wire, Tri Rated, 100m, Pink, 14AWG	4213
Wire, Tri Rated, 100m, Light Blue, 14AWG	4214

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Description	Part Number
Wire, Tri Rated, 100m, Green, 14AWG	PP000415
Wire, Tri Rated, 100m, Blue, 12AWG	4215
Wire, Tri Rated, 100m, GRN/YEL, 12AWG	4216
Wire, Tri Rated, 100m, Red, 12AWG	4217
Wire, Tri Rated, 100m, Black, 12AWG	4218
Wire, Tri Rated, 100m, Brown, 12AWG	4219
Wire, Tri Rated, 100m, Yellow, 12AWG	4220
Wire, Tri Rated, 100m, Grey, 12AWG	4221
Wire, Tri Rated, 100m, Red, 10AWG	4222
Wire, Tri Rated, 100m, Yellow, 10AWG	4223
Wire, Tri Rated, 100m, Grey, 10AWG	4224
Wire, Tri Rated, 100m, GRN/YEL, 10AWG	4225
Wire, Tri Rated, 100m, Blue, 10AWG	4226
Wire, Tri Rated, 100m, Black, 10AWG	4227
Wire, Tri Rated, 100m, Brown, 10AWG	4228
Wire, Tri Rated, 100m, Black, 8AWG	4229
Wire, Tri Rated, 100m, Blue, 8AWG	4230

Description	Part Number
Wire, Tri Rated, 100m, Brown, 8AWG	4231
Wire, Tri Rated, 100m, Red, 8AWG	4232
Wire, Tri Rated, 100m, Yellow, 8AWG	4234
Wire, Tri Rated, 100m, Grey, 8AWG	4235
Wire, Tri Rated, 100m, GRN/YEL, 8AWG	4236
Wire, Tri Rated, 100m, Black, 6AWG	4237
Wire, Tri Rated, 100m, Blue, 6AWG	4238
Wire, Tri Rated, 100m, Brown, 6AWG	4239
Wire, Tri Rated, 100m, Red, 6AWG	4240
Wire, Tri Rated, 100m, Yellow, 6AWG	4241
Wire, Tri Rated, 100m, Grey, 6AWG	4242
Wire, Tri Rated, 100m, GRN/YEL, 6AWG	4243
Wire, Tri Rated, 100m, Brown, 4AWG	4244
Wire, Tri Rated, 100m, Red, 4AWG	4245
Wire, Tri Rated, 100m, Grey, 4AWG	4246
Wire, Tri Rated, 100m, GRN/YEL, 4AWG	4247

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