



ENGLISH

Datasheet

RS PRO 3 Core SY Control Cable

Stock No: 196-4661






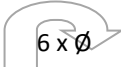




Manufactured generally to BS EN 50525-2-11:2011

Plain Annealed Flexible Copper Conductors / PVC Insulated / PVC Bedding / GSWB (Galvanised Steel Wire Braid) / PVC Sheathed. 300/500V

| | |
|-------------------------|--|
| Conductor : | Plain Annealed Copper Class 5 to BS EN 60228 |
| Insulation: | PVC Type TI2 to BS EN 50363-3 |
| Bedding: | PVC Type TM2 to B EN 50363-4-1 |
| Braiding: | GSWB (Galvanised Steel Wire Braid) |
| Sheath: | Clear PVC Type TM2 to B EN 50363-4-1 |
| Current Ratings: | For current ratings refer to table 4F1 and 4F3 of BS7671 IEE Wiring Regulations Seventeenth Edition. |

The cable is designed to be used as interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. It is commonly used in a wide number of industries including building and construction, rail and transport infrastructures, transmission and automation and process control.

This cable is also used by electricians in certain fixed installations where only light mechanical stress may occur. This cable can also be used outdoors (but should be protected); however, it is best suited to dry or moist conditions indoors.

| STANDARD CORE COLOURS | MINIMUM OPERATING TEMPERATURE | MAXIMUM OPERATING TEMPERATURE | MINIMUM BENDING RADIUS |
|--|---|--|---|
| 2 CORE  |  |  |  |
| 3 CORE  | | | |
| 4 CORE  | | | |
| 5 CORE  | | | |
| 7 CORE+  + BLACK NUMBERED | | | |

| Reference Number | Nominal Cross Sectional Area of Conductor (mm ²) | Nominal Stranding of Conductor (mm) | Nominal Radial Thickness of insulation (mm) | Nominal Radial Thickness of bedding (mm) | Nominal Radial Thickness of sheath (mm) | Approximate Overall Diameter Lower Limit (mm) | Approximate Overall Diameter Upper Limit (mm) | Approximate Weight (kg/km) |
|------------------|--|-------------------------------------|---|--|---|---|---|----------------------------|
| SY0.752C | 0.75 | 24/0.2 | 0.5 | 0.4 | 1.0 | 7.1 | 9.1 | 103 |
| SY1.02C | 1.0 | 32/0.2 | 0.5 | 0.4 | 1.0 | 7.5 | 9.5 | 113 |
| SY1.52C | 1.5 | 30/0.25 | 0.5 | 0.4 | 1.0 | 7.9 | 9.9 | 128 |
| SY0.753C | 0.75 | 24/0.2 | 0.5 | 0.4 | 1.0 | 7.9 | 9.9 | 115 |
| SY1.03C | 1.0 | 32/0.2 | 0.5 | 0.4 | 1.0 | 8.3 | 10.3 | 126 |
| SY1.53C | 1.5 | 30/0.25 | 0.5 | 0.4 | 1.0 | 8.9 | 10.9 | 146 |
| SY2.53C | 2.5 | 50/0.25 | 0.5 | 0.4 | 1.0 | 9.7 | 11.7 | 184 |
| SY4.03C | 4.0 | 56/0.3 | 0.5 | 0.4 | 1.0 | 11.0 | 13.0 | 247 |
| SY6.03C | 6.0 | 84/0.3 | 0.5 | 0.6 | 1.0 | 13.0 | 15.0 | 322 |
| SY7103C | 10.0 | 80/0.4 | 0.6 | 0.6 | 1.0 | 15.6 | 17.6 | 485 |
| SY7163C | 16.0 | 126/0.4 | 0.6 | 0.8 | 1.0 | 19.1 | 21.1 | 900 |
| SY0.754C | 0.75 | 24/0.2 | 0.5 | 0.4 | 1.0 | 8.4 | 10.4 | 130 |
| SY1.04C | 1.0 | 32/0.2 | 0.5 | 0.4 | 1.0 | 8.9 | 10.9 | 145 |
| SY1.54C | 1.5 | 30/0.25 | 0.5 | 0.4 | 1.0 | 9.5 | 11.5 | 170 |
| SY2.54C | 2.5 | 50/0.25 | 0.5 | 0.4 | 1.0 | 10.5 | 12.5 | 218 |
| SY4.04C | 4.0 | 56/0.3 | 0.5 | 0.4 | 1.0 | 12.0 | 14.0 | 299 |
| SY6.04C | 6.0 | 84/0.3 | 0.5 | 0.6 | 1.0 | 14.2 | 16.2 | 394 |
| SY7104C | 10.0 | 80/0.4 | 0.6 | 0.6 | 1 | 17.6 | 19.6 | 638 |
| SY7164C | 16.0 | 126/0.4 | 0.6 | 0.8 | 1.0 | 21.2 | 23.2 | 996 |
| SY7254C | 25.0 | 196/0.4 | 0.8 | 0.8 | 1.0 | 25.7 | 27.7 | 1383 |
| SY7354C | 35.0 | 276/0.4 | 0.8 | 0.8 | 1 | 29.5 | 31.5 | 1938 |

Weight and dimensional information is provided as an approximate guide only.

SY CONTROL FLEXIBLE

PVC INSULATED, BEDDED AND SHEATHED WITH GALVANISED STEEL BRAID

| Reference Number | Nominal Cross Sectional Area of Conductor | Nominal Stranding of Conductor (mm) | Nominal Radial Thickness of insulation (mm) | Nominal Radial Thickness of bedding (mm) | Nominal Radial Thickness of sheath (mm) | Approximate Overall Diameter Lower Limit | Approximate Overall Diameter Upper Limit | Approximate Weight (kg/km) |
|------------------|---|-------------------------------------|---|--|---|--|--|----------------------------|
| SY0.755C | 0.75 | 24/0.2 | 0.5 | 0.4 | 1.0 | 9.0 | 11.0 | 147 |
| SY1.05C | 1.0 | 32/0.2 | 0.5 | 0.4 | 1.0 | 9.5 | 11.5 | 167 |
| SY1.55C | 1.5 | 30/0.25 | 0.5 | 0.4 | 1.0 | 10.3 | 12.3 | 196 |
| SY2.55C | 2.5 | 50/0.25 | 0.5 | 0.4 | 1.0 | 11.3 | 13.3 | 256 |
| SY4.05C | 4.0 | 56/0.3 | 0.5 | 0.4 | 1.0 | 13.0 | 15.0 | 356 |
| SY6.05C | 6.0 | 84/0.3 | 0.5 | 0.6 | 1.0 | 15.3 | 17.3 | 476 |
| SY7105C | 10.0 | 80/0.4 | 0.6 | 0.6 | 1.0 | 19.3 | 21.3 | 766 |
| SY7165C | 16.0 | 126/0.4 | 0.6 | 0.8 | 1.0 | 23.2 | 25.2 | 1159 |
| SY7255C | 25.0 | 196/0.4 | 0.8 | 0.8 | 1.0 | 28.1 | 30.1 | 1758 |
| SY7355C | 35.0 | 276/0.4 | 0.8 | 0.8 | 1.0 | 32.0 | 34.0 | 2560 |
| SY0.757C | 0.75 | 24/0.2 | 0.5 | 0.4 | 1.0 | 9.7 | 11.7 | 174 |
| SY1.07C | 1.0 | 32/0.2 | 0.5 | 0.4 | 1.0 | 10.2 | 12.2 | 195 |
| SY1.57C | 1.5 | 30/0.25 | 0.5 | 0.4 | 1.0 | 11.0 | 13.0 | 235 |
| SY2.57C | 2.5 | 50/0.25 | 0.5 | 0.4 | 1.0 | 12.2 | 14.2 | 313 |
| SY4.07C | 4.0 | 56/0.3 | 0.5 | 0.4 | 1.0 | 14.0 | 16.0 | 460 |
| SY0.7512C | 0.75 | 24/0.2 | 0.5 | 0.5 | 1.0 | 12.3 | 14.3 | 221 |
| SY1.012C | 1.0 | 32/0.2 | 0.5 | 0.5 | 1.0 | 12.5 | 14.5 | 238 |
| SY1.512C | 1.5 | 30/0.25 | 0.5 | 0.5 | 1 | 14.4 | 16.4 | 321 |
| SY2.512C | 2.5 | 50/0.25 | 0.5 | 0.5 | 1.0 | 16.9 | 18.9 | 499 |
| SY0.7518C | 0.75 | 24/0.2 | 0.5 | 0.5 | 1 | 14.3 | 16.3 | 279 |
| SY1.018C | 1.0 | 32/0.2 | 0.5 | 0.5 | 1 | 15.2 | 17.2 | 326 |
| SY1.518C | 1.5 | 30/0.25 | 0.5 | 0.5 | 1 | 16.9 | 18.9 | 464 |
| SY2.518C | 2.5 | 50/0.25 | 0.5 | 0.5 | 1 | 19.9 | 21.9 | 685 |
| SY0.7525C | 0.75 | 24/0.2 | 0.5 | 0.5 | 1 | 16.9 | 18.9 | 397 |
| SY1.025C | 1.0 | 32/0.2 | 0.5 | 0.5 | 1 | 17.7 | 19.7 | 477 |

Weight and dimensional information is provided as an approximate guide only.



SY CONTROL FLEXIBLE

PVC INSULATED, BEDDED AND SHEATHED WITH GALVANISED STEEL BRAID

XT Gland Chart

| Size mm ² | Number of Cores | | | | | | | |
|-------------------------|-----------------|-----|-----|-----|-----|----|----|----|
| | 2 | 3 | 4 | 5 | 7 | 12 | 18 | 25 |
| 0.75 | 20S | 20S | 20S | 20S | 20S | 20 | 25 | 25 |
| 1.0 | 20S | 20S | 20S | 20S | 20S | 20 | 25 | 25 |
| 1.5 | 20S | 20S | 20S | 20 | 20 | 25 | 25 | 32 |
| 2.5 | - | 20 | 20 | 20 | 25 | 25 | 25 | |
| 4.0 | - | 20 | 20 | 25 | 25 | | | |
| 6.0 | - | 25 | 25 | 25 | | | | |
| 10.0 | - | 25 | 32 | 32 | | | | |
| 16.0 | - | 32 | 32 | 40 | | | | |
| 25.0 | - | - | 40 | 40 | | | | |
| 35.0 | - | - | 40 | 40 | | | | |

Multicore Loading

In practice, the majority of cores in a multicore control cable of 7 cores and above carry only small or intermittent current and a current rating based on the assumption that all cores are equally loaded is quite unrealistic. In most cases only two cores, the line and neutral feed cores are likely to approach the maximum permitted loading. The current rating for twin core cable can therefore be used in these cables. Where more than two cores are known to carry an appreciable current, the multiplying factors applicable to the two core ratings are given below. The normal current rating for twin cable may also be used in cases where the number of cores carrying appreciable current does not exceed the square root of the total number of cores in the cable.

| | | | | | | | | |
|------------------------|------|------|------|------|------|------|------|------|
| Number of loaded cores | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 14 |
| Multiplying factor | 0.87 | 0.78 | 0.72 | 0.67 | 0.63 | 0.56 | 0.53 | 0.51 |

| | | | | | | | | |
|------------------------|------|------|------|------|------|------|------|------|
| Number of loaded cores | 19 | 24 | 27 | 30 | 37 | 44 | 46 | 48 |
| Multiplying factor | 0.45 | 0.42 | 0.40 | 0.39 | 0.36 | 0.34 | 0.33 | 0.33 |

Weight and dimensional information is provided as an approximate guide only.

