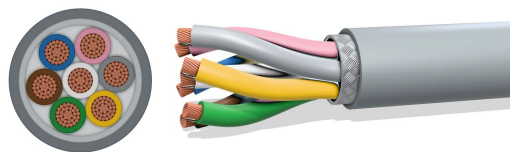


## Application

LiYCY is a flexible, screened multicore data and signal cable with fine-stranded bare copper conductors, PVC core insulation, an overall braid of tinned copper wires and a grey PVC outer sheath. The braid screen limits the influence of external electrical interference on the transmitted signal and reduces the emission of the cable itself. The cable is intended for the transmission of low-voltage data, measuring and control signals in dry and damp indoor locations, for fixed installation or occasional flexing without tensile load. It is not intended for outdoor use, direct burial or power distribution.



## CONSTRUCTION

|                            |                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------|
| <b>Conductor</b>           | Fine-stranded bare copper (class 5 acc. to IEC 60228 from 0.5 mm <sup>2</sup> ).     |
| <b>Insulation</b>          | PVC.                                                                                 |
| <b>Screen</b>              | Braid of tinned copper wires over the stranded cores, optical coverage approx. 70 %. |
| <b>Sheath</b>              | PVC, grey.                                                                           |
| <b>Core identification</b> | Colour code acc. to DIN 47100.                                                       |

## ELECTRICAL & THERMAL PROPERTIES

|                                                 |                                                                                                                                                    |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rated voltage</b>                            | 250 V (peak operating voltage, not for power applications).                                                                                        |
| <b>Test voltage</b>                             | 1200 V.                                                                                                                                            |
| <b>Standard</b>                                 | Manufacturer specification based on DIN VDE 0812; conductor class 5 acc. to IEC 60228 (from 0.5 mm <sup>2</sup> ); core colours acc. to DIN 47100. |
| <b>Flame-retardant</b>                          | Acc. to IEC/EN 60332-1-2.                                                                                                                          |
| <b>Max. conductor temperature</b>               | +70 °C.                                                                                                                                            |
| <b>Permitted outer cable temperature, fixed</b> | -30 °C to +70 °C.                                                                                                                                  |
| <b>Permitted outer cable temperature, moved</b> | -5 °C to +70 °C.                                                                                                                                   |
| <b>Min. bending radius, fixed</b>               | 10 × outer diameter.                                                                                                                               |
| <b>Min. bending radius, moved</b>               | 15 × outer diameter.                                                                                                                               |
| <b>Reaction to fire (CPR)</b>                   | Eca (EN 50575); as a flexible cable it falls outside CPR scope when used only for the connection of mobile equipment.                              |

## DIMENSIONS & TECHNICAL DATA

| Cores × mm <sup>2</sup> | Cond. R @20°C<br>(Ω/km) | Nominal O.D.<br>(mm) | Weight<br>(kg/km) |
|-------------------------|-------------------------|----------------------|-------------------|
| 2 × 0.14                | 138                     | 3.8                  | 20                |
| 3 × 0.14                | 138                     | 4                    | 27                |
| 4 × 0.14                | 138                     | 4.2                  | 32                |
| 5 × 0.14                | 138                     | 4.5                  | 37                |
| 6 × 0.14                | 138                     | 5                    | 42                |
| 7 × 0.14                | 138                     | 5                    | 48                |
| 8 × 0.14                | 138                     | 5.6                  | 55                |
| 10 × 0.14               | 138                     | 6                    | 65                |
| 12 × 0.14               | 138                     | 6.2                  | 77                |
| 14 × 0.14               | 138                     | 6.6                  | 79                |
| 16 × 0.14               | 138                     | 6.9                  | 89                |
| 18 × 0.14               | 138                     | 7.2                  | 103               |
| 20 × 0.14               | 138                     | 7.6                  | 116               |
| 21 × 0.14               | 138                     | 7.6                  | 120               |
| 24 × 0.14               | 138                     | 8.4                  | 131               |
| 25 × 0.14               | 138                     | 8.4                  | 136               |
| 27 × 0.14               | 138                     | 8.4                  | 142               |
| 30 × 0.14               | 138                     | 8.8                  | 157               |
| 32 × 0.14               | 138                     | 9.1                  | 163               |
| 36 × 0.14               | 138                     | 9.4                  | 182               |
| 40 × 0.14               | 138                     | 10.3                 | 209               |
| 42 × 0.14               | 138                     | 10.3                 | 217               |
| 44 × 0.14               | 138                     | 10.6                 | 226               |
| 48 × 0.14               | 138                     | 10.8                 | 240               |
| 52 × 0.14               | 138                     | 11                   | 270               |
| 56 × 0.14               | 138                     | 11.5                 | 320               |
| 61 × 0.14               | 138                     | 11.8                 | 370               |
| 2 × 0.25                | 79                      | 4.4                  | 31                |
| 3 × 0.25                | 79                      | 4.6                  | 36                |
| 4 × 0.25                | 79                      | 5.2                  | 40                |
| 5 × 0.25                | 79                      | 5.5                  | 51                |
| 6 × 0.25                | 79                      | 5.9                  | 58                |
| 7 × 0.25                | 79                      | 5.9                  | 64                |
| 8 × 0.25                | 79                      | 6.9                  | 82                |
| 10 × 0.25               | 79                      | 7.4                  | 85                |
| 12 × 0.25               | 79                      | 7.6                  | 90                |
| 14 × 0.25               | 79                      | 8                    | 98                |
| 16 × 0.25               | 79                      | 8.5                  | 110               |
| 18 × 0.25               | 79                      | 8.9                  | 142               |
| 19 × 0.25               | 79                      | 8.9                  | 146               |
| 20 × 0.25               | 79                      | 9.3                  | 152               |
| 21 × 0.25               | 79                      | 9.3                  | 150               |
| 24 × 0.25               | 79                      | 10.4                 | 163               |
| 25 × 0.25               | 79                      | 10.4                 | 169               |
| 27 × 0.25               | 79                      | 10.4                 | 176               |

| Cores × mm2 | Cond. R @20°C<br>(Ω/km) | Nominal O.D.<br>(mm) | Weight<br>(kg/km) |
|-------------|-------------------------|----------------------|-------------------|
| 30 × 0.25   | 79                      | 11                   | 189               |
| 32 × 0.25   | 79                      | 11.5                 | 204               |
| 36 × 0.25   | 79                      | 11.9                 | 219               |
| 37 × 0.25   | 79                      | 11.9                 | 230               |
| 40 × 0.25   | 79                      | 13.2                 | 247               |
| 42 × 0.25   | 79                      | 13.2                 | 269               |
| 44 × 0.25   | 79                      | 13.6                 | 292               |
| 48 × 0.25   | 79                      | 13.8                 | 317               |
| 52 × 0.25   | 79                      | 14.2                 | 330               |
| 56 × 0.25   | 79                      | 14.5                 | 343               |
| 61 × 0.25   | 79                      | 15.1                 | 365               |
| 2 × 0.34    | 57                      | 4.6                  | 30                |
| 3 × 0.34    | 57                      | 5                    | 37                |
| 4 × 0.34    | 57                      | 5.4                  | 48                |
| 5 × 0.34    | 57                      | 5.8                  | 54                |
| 6 × 0.34    | 57                      | 6.2                  | 61                |
| 7 × 0.34    | 57                      | 6.2                  | 67                |
| 8 × 0.34    | 57                      | 7.3                  | 81                |
| 10 × 0.34   | 57                      | 7.8                  | 103               |
| 12 × 0.34   | 57                      | 8.2                  | 110               |
| 14 × 0.34   | 57                      | 8.6                  | 153               |
| 16 × 0.34   | 57                      | 9                    | 159               |
| 18 × 0.34   | 57                      | 9.4                  | 172               |
| 19 × 0.34   | 57                      | 9.4                  | 181               |
| 20 × 0.34   | 57                      | 10.1                 | 191               |
| 21 × 0.34   | 57                      | 10.1                 | 199               |
| 24 × 0.34   | 57                      | 11                   | 229               |
| 25 × 0.34   | 57                      | 11                   | 241               |
| 27 × 0.34   | 57                      | 11                   | 258               |
| 30 × 0.34   | 57                      | 11.8                 | 290               |
| 32 × 0.34   | 57                      | 12.2                 | 305               |
| 36 × 0.34   | 57                      | 12.6                 | 330               |
| 37 × 0.34   | 57                      | 12.6                 | 348               |
| 40 × 0.34   | 57                      | 14                   | 364               |
| 42 × 0.34   | 57                      | 14                   | 389               |
| 44 × 0.34   | 57                      | 14.4                 | 414               |
| 48 × 0.34   | 57                      | 14.8                 | 420               |
| 52 × 0.34   | 57                      | 15.2                 | 450               |
| 56 × 0.34   | 57                      | 15.6                 | 480               |
| 61 × 0.34   | 57                      | 16                   | 520               |
| 2 × 0.5     | 39                      | 5.4                  | 45                |
| 3 × 0.5     | 39                      | 5.7                  | 55                |
| 4 × 0.5     | 39                      | 6.1                  | 61                |
| 5 × 0.5     | 39                      | 6.8                  | 76                |
| 6 × 0.5     | 39                      | 7.3                  | 89                |
| 7 × 0.5     | 39                      | 7.3                  | 98                |
| 8 × 0.5     | 39                      | 8.6                  | 117               |

| Cores × mm2 | Cond. R @20°C<br>(Ω/km) | Nominal O.D.<br>(mm) | Weight<br>(kg/km) |
|-------------|-------------------------|----------------------|-------------------|
| 10 × 0.5    | 39                      | 9.2                  | 135               |
| 12 × 0.5    | 39                      | 9.5                  | 157               |
| 14 × 0.5    | 39                      | 10.1                 | 190               |
| 16 × 0.5    | 39                      | 10.6                 | 210               |
| 18 × 0.5    | 39                      | 11.1                 | 217               |
| 19 × 0.5    | 39                      | 11.1                 | 246               |
| 20 × 0.5    | 39                      | 11.9                 | 275               |
| 24 × 0.5    | 39                      | 13.4                 | 337               |
| 25 × 0.5    | 39                      | 13.4                 | 351               |
| 27 × 0.5    | 39                      | 13.4                 | 373               |
| 30 × 0.5    | 39                      | 14.1                 | 396               |
| 32 × 0.5    | 39                      | 14.8                 | 431               |
| 34 × 0.5    | 39                      | 15.3                 | 440               |
| 36 × 0.5    | 39                      | 15.3                 | 445               |
| 37 × 0.5    | 39                      | 15.3                 | 458               |
| 40 × 0.5    | 39                      | 16.7                 | 470               |
| 50 × 0.5    | 39                      | 18.1                 | 570               |
| 61 × 0.5    | 39                      | 19.3                 | 650               |
| 2 × 0.75    | 26                      | 5.9                  | 59                |
| 3 × 0.75    | 26                      | 6.2                  | 66                |
| 4 × 0.75    | 26                      | 6.9                  | 77                |
| 5 × 0.75    | 26                      | 7.5                  | 93                |
| 6 × 0.75    | 26                      | 8.3                  | 113               |
| 7 × 0.75    | 26                      | 8.3                  | 130               |
| 8 × 0.75    | 26                      | 9.5                  | 145               |
| 10 × 0.75   | 26                      | 10.4                 | 180               |
| 12 × 0.75   | 26                      | 10.7                 | 202               |
| 14 × 0.75   | 26                      | 11.2                 | 225               |
| 16 × 0.75   | 26                      | 12                   | 275               |
| 18 × 0.75   | 26                      | 12.6                 | 292               |
| 19 × 0.75   | 26                      | 12.6                 | 322               |
| 20 × 0.75   | 26                      | 13.6                 | 362               |
| 24 × 0.75   | 26                      | 15.1                 | 435               |
| 25 × 0.75   | 26                      | 15.1                 | 415               |
| 27 × 0.75   | 26                      | 15.1                 | 467               |
| 30 × 0.75   | 26                      | 15.9                 | 486               |
| 32 × 0.75   | 26                      | 16.7                 | 530               |
| 34 × 0.75   | 26                      | 17.3                 | 570               |
| 36 × 0.75   | 26                      | 17.3                 | 600               |
| 37 × 0.75   | 26                      | 17.3                 | 640               |
| 40 × 0.75   | 26                      | 19                   | 680               |
| 42 × 0.75   | 26                      | 19                   | 714               |
| 61 × 0.75   | 26                      | 22                   | 900               |
| 2 × 1       | 19.5                    | 6.2                  | 65                |
| 3 × 1       | 19.5                    | 6.8                  | 80                |
| 4 × 1       | 19.5                    | 7.3                  | 98                |
| 5 × 1       | 19.5                    | 7.9                  | 127               |

| Cores × mm2 | Cond. R @20°C<br>(Ω/km) | Nominal O.D.<br>(mm) | Weight<br>(kg/km) |
|-------------|-------------------------|----------------------|-------------------|
| 6 × 1       | 19.5                    | 8.7                  | 144               |
| 7 × 1       | 19.5                    | 8.7                  | 158               |
| 8 × 1       | 19.5                    | 10.2                 | 197               |
| 10 × 1      | 19.5                    | 11                   | 232               |
| 12 × 1      | 19.5                    | 11.6                 | 260               |
| 14 × 1      | 19.5                    | 12.1                 | 302               |
| 16 × 1      | 19.5                    | 12.7                 | 346               |
| 19 × 1      | 19.5                    | 13.7                 | 412               |
| 24 × 1      | 19.5                    | 16                   | 493               |
| 27 × 1      | 19.5                    | 16                   | 562               |
| 37 × 1      | 19.5                    | 18.5                 | 790               |
| 2 × 1.5     | 13.3                    | 7.4                  | 88                |
| 3 × 1.5     | 13.3                    | 7.8                  | 100               |
| 4 × 1.5     | 13.3                    | 8.7                  | 126               |
| 5 × 1.5     | 13.3                    | 9.4                  | 160               |
| 6 × 1.5     | 13.3                    | 10.4                 | 192               |
| 7 × 1.5     | 13.3                    | 10.4                 | 208               |
| 8 × 1.5     | 13.3                    | 12.2                 | 244               |
| 10 × 1.5    | 13.3                    | 13.6                 | 315               |
| 12 × 1.5    | 13.3                    | 14                   | 338               |
| 14 × 1.5    | 13.3                    | 14.9                 | 383               |
| 16 × 1.5    | 13.3                    | 15.6                 | 424               |
| 19 × 1.5    | 13.3                    | 16.6                 | 506               |
| 24 × 1.5    | 13.3                    | 19.8                 | 690               |
| 27 × 1.5    | 13.3                    | 19.8                 | 781               |
| 37 × 1.5    | 13.3                    | 22.6                 | 941               |

Outer diameters and weights are the nominal manufacturer values of the leading reference source and the conductor resistance is the nominal value at 20 °C for the conductor size; all values are indicative and non-binding.