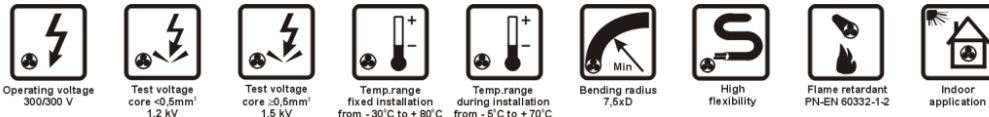


**TECHNOTRONIK LiYY****CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS****APPLICATIONS**

**TECHNOTRONIK LiYY** are control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOTRONIK LiYY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LiY11Y** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LiHH** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LiYY** - specially designed intrinsically safe cable.

## TECHNOTRONIK LiYY

### CHARACTERISTICS

|                                                |                 |             |             |             |            |             |            |            |            |
|------------------------------------------------|-----------------|-------------|-------------|-------------|------------|-------------|------------|------------|------------|
| Conductor cross-section                        | mm <sup>2</sup> | <b>0.14</b> | <b>0.25</b> | <b>0.34</b> | <b>0.5</b> | <b>0.75</b> | <b>1.0</b> | <b>1.5</b> | <b>2.5</b> |
| Operating voltage, peak value                  | V               | 350         | 350         | 350         | 500        | 500         | 500        | 500        | 500        |
| Voltage test                                   | V rms           | 1200        | 1200        | 1200        | 1500       | 1500        | 1500       | 1500       | 1500       |
| DC conductor resistance at 20°C, maximum       | Ω/km            | 144.0       | 79.0        | 57.0        | 39.0       | 26.0        | 19.5       | 13.3       | 7.98       |
| Capacitance between conductors at 1 kHz, appr. | nF/km           | 90          | 90          | 100         | 100        | 120         | 120        | 130        | 130        |

Operating voltage U<sub>0</sub>/U 300/300 V

Insulation resistance, minimum 20 MΩ·km

Inductance, approximate 0.7 mH/km

Impedance, approximate 80 Ω

Operating temperature range

for fixed installation

for movable installation

from - 30 to + 80°C

from - 5 to + 70°C

Minimum bending radius

7.5 x cable diameter

Cable combustibility

flame retardant

Combustibility tests

PN-EN 60332-1-2, IEC 60332-1-2

Reference standards

DIN VDE 0812, DIN VDE 0814

**CE** = the cable meets requirements of the low voltage directive 2014/35/EU

| Product No. | Number of conductors x conductor cross-section | Cable outer diameter (appr.) | Copper index | Cable weight (appr.) |
|-------------|------------------------------------------------|------------------------------|--------------|----------------------|
|             | mm <sup>2</sup>                                | mm                           | kg/km        | kg/km                |
| 0162 007    | 2 x 0,14                                       | 3.0                          | 2.69         | 13                   |
| 0162 010    | 3 x 0,14                                       | 3.1                          | 4.0          | 15                   |
| 0162 013    | 4 x 0,14                                       | 3.4                          | 5.4          | 17                   |
| 0162 014    | 5 x 0,14                                       | 3.7                          | 6.7          | 21                   |
| 0162 015    | 6 x 0,14                                       | 4.0                          | 8.1          | 25                   |
| 0162 016    | 7 x 0,14                                       | 4.0                          | 9.4          | 25                   |
| 0162 017    | 8 x 0,14                                       | 4.3                          | 10.8         | 28                   |
| 0162 018    | 10 x 0,14                                      | 5.2                          | 13.4         | 37                   |
| 0162 019    | 12 x 0,14                                      | 5.4                          | 16.1         | 42                   |
| 0162 020    | 14 x 0,14                                      | 5.6                          | 18.8         | 46                   |
| 0162 021    | 16 x 0,14                                      | 5.9                          | 21.5         | 52                   |
| 0162 257    | 18 x 0,14                                      | 6.3                          | 24.2         | 59                   |
| 0162 192    | 20 x 0,14                                      | 6.6                          | 26.9         | 65                   |
| 0162 272    | 21 x 0,14                                      | 6.6                          | 28.2         | 65                   |
| 0162 240    | 27 x 0,14                                      | 7.4                          | 36.3         | 79                   |
| 0162 273    | 30 x 0,14                                      | 7.7                          | 40.3         | 86                   |
| 0162 022    | 36 x 0,14                                      | 8.3                          | 48.4         | 102                  |
| 0162 138    | 40 x 0,14                                      | 8.6                          | 53.8         | 110                  |
| 0162 274    | 44 x 0,14                                      | 9.7                          | 59.1         | 129                  |
| 0162 275    | 48 x 0,14                                      | 9.9                          | 64.5         | 138                  |
| 0162 276    | 52 x 0,14                                      | 10.2                         | 69.9         | 147                  |
| 0162 277    | 56 x 0,14                                      | 10.5                         | 75.3         | 158                  |
| 0162 278    | 61 x 0,14                                      | 10.8                         | 82.0         | 168                  |
| 0162 024    | 2 x 0,25                                       | 3.3                          | 4.8          | 17                   |
| 0162 026    | 3 x 0,25                                       | 3.5                          | 7.2          | 20                   |
| 0162 029    | 4 x 0,25                                       | 3.8                          | 9.6          | 24                   |
| 0162 136    | 5 x 0,25                                       | 4.1                          | 12.0         | 29                   |
| 0162 031    | 6 x 0,25                                       | 4.5                          | 14.4         | 34                   |
| 0162 032    | 7 x 0,25                                       | 4.5                          | 16.8         | 35                   |
| 0162 033    | 8 x 0,25                                       | 4.8                          | 19.2         | 38                   |
| 0162 035    | 10 x 0,25                                      | 5.9                          | 24.0         | 52                   |
| 0162 036    | 12 x 0,25                                      | 6.0                          | 28.8         | 58                   |
| 0162 037    | 14 x 0,25                                      | 6.4                          | 33.6         | 66                   |
| 0162 262    | 16 x 0,25                                      | 6.7                          | 38.4         | 75                   |
| 0162 279    | 18 x 0,25                                      | 7.1                          | 43.2         | 83                   |
| 0162 038    | 20 x 0,25                                      | 7.4                          | 48.0         | 92                   |
| 0162 280    | 21 x 0,25                                      | 7.4                          | 50.4         | 92                   |

| Product No. | Number of conductors x conductor cross-section | Cable outer diameter (appr.) | Copper index | Cable weight (appr.) |
|-------------|------------------------------------------------|------------------------------|--------------|----------------------|
|             | mm <sup>2</sup>                                | mm                           | kg/km        | kg/km                |
| 0162 263    | 24 x 0,25                                      | 8.2                          | 57.6         | 105                  |
| 0162 281    | 27 x 0,25                                      | 8.4                          | 64.8         | 115                  |
| 0162 040    | 30 x 0,25                                      | 8.7                          | 72.0         | 126                  |
| 0162 041    | 36 x 0,25                                      | 9.8                          | 86.4         | 157                  |
| 0162 264    | 40 x 0,25                                      | 10.2                         | 96.0         | 170                  |
| 0162 282    | 44 x 0,25                                      | 11.0                         | 105.6        | 187                  |
| 0162 283    | 48 x 0,25                                      | 11.2                         | 115.2        | 201                  |
| 0162 284    | 52 x 0,25                                      | 11.5                         | 124.8        | 215                  |
| 0162 265    | 56 x 0,25                                      | 12.1                         | 134.4        | 235                  |
| 0162 285    | 61 x 0,25                                      | 12.4                         | 146.4        | 252                  |
| 0162 105    | 2 x 0,34                                       | 3.5                          | 6.5          | 20                   |
| 0162 109    | 3 x 0,34                                       | 3.7                          | 9.8          | 24                   |
| 0162 112    | 4 x 0,34                                       | 4.0                          | 13.1         | 29                   |
| 0162 115    | 5 x 0,34                                       | 4.4                          | 16.3         | 36                   |
| 0162 116    | 6 x 0,34                                       | 4.8                          | 19.6         | 42                   |
| 0162 117    | 7 x 0,34                                       | 4.8                          | 22.8         | 44                   |
| 0162 118    | 8 x 0,34                                       | 5.4                          | 26.1         | 51                   |
| 0162 119    | 10 x 0,34                                      | 6.3                          | 32.6         | 65                   |
| 0162 120    | 12 x 0,34                                      | 6.5                          | 39.2         | 74                   |
| 0162 162    | 14 x 0,34                                      | 6.8                          | 45.7         | 84                   |
| 0162 254    | 16 x 0,34                                      | 7.2                          | 52.2         | 95                   |
| 0162 174    | 18 x 0,34                                      | 7.6                          | 58.8         | 106                  |
| 0162 121    | 20 x 0,34                                      | 8.0                          | 65.3         | 118                  |
| 0162 286    | 21 x 0,34                                      | 8.0                          | 68.5         | 118                  |
| 0162 287    | 27 x 0,34                                      | 9.1                          | 88.1         | 149                  |
| 0162 266    | 30 x 0,34                                      | 9.8                          | 97.9         | 171                  |
| 0162 288    | 36 x 0,34                                      | 10.6                         | 117.5        | 203                  |
| 0162 267    | 40 x 0,34                                      | 11.0                         | 130.6        | 220                  |
| 0162 289    | 44 x 0,34                                      | 12.1                         | 143.6        | 248                  |
| 0162 290    | 48 x 0,34                                      | 12.3                         | 156.7        | 266                  |
| 0162 291    | 52 x 0,34                                      | 12.6                         | 169.7        | 284                  |
| 0162 292    | 56 x 0,34                                      | 13.0                         | 182.8        | 305                  |
| 0162 122    | 61 x 0,34                                      | 13.4                         | 199.1        | 327                  |
| 0162 044    | 2 x 0,5                                        | 4.0                          | 9.6          | 25                   |
| 0162 046    | 3 x 0,5                                        | 4.2                          | 14.4         | 31                   |
| 0162 050    | 4 x 0,5                                        | 4.6                          | 19.2         | 37                   |

## TECHNOTRONIK LIYY

| Product No. | Number of conductors x conductor cross-section | Cable outer diameter (appr.) | Copper index | Cable weight (appr.) |
|-------------|------------------------------------------------|------------------------------|--------------|----------------------|
|             | mm <sup>2</sup>                                | mm                           | kg/km        | kg/km                |
| 0162 051    | 5 x 0,5                                        | 5.3                          | 24.0         | 49                   |
| 0162 052    | 6 x 0,5                                        | 5.8                          | 28.8         | 58                   |
| 0162 054    | 7 x 0,5                                        | 5.8                          | 33.6         | 61                   |
| 0162 056    | 8 x 0,5                                        | 6.2                          | 38.4         | 70                   |
| 0162 057    | 10 x 0,5                                       | 7.3                          | 48.0         | 85                   |
| 0162 058    | 12 x 0,5                                       | 7.5                          | 57.6         | 97                   |
| 0162 203    | 14 x 0,5                                       | 7.9                          | 67.2         | 110                  |
| 0162 059    | 16 x 0,5                                       | 8.4                          | 76.8         | 125                  |
| 0162 224    | 18 x 0,5                                       | 8.9                          | 86.4         | 140                  |
| 0162 293    | 20 x 0,5                                       | 9.7                          | 96.0         | 164                  |
| 0162 294    | 21 x 0,5                                       | 9.7                          | 100.8        | 166                  |
| 0162 295    | 27 x 0,5                                       | 11.0                         | 129.6        | 206                  |
| 0162 268    | 30 x 0,5                                       | 11.4                         | 144.0        | 225                  |
| 0162 296    | 36 x 0,5                                       | 12.6                         | 172.8        | 273                  |
| 0162 269    | 40 x 0,5                                       | 13.0                         | 192.0        | 298                  |
| 0162 297    | 44 x 0,5                                       | 14.3                         | 211.2        | 332                  |
| 0162 298    | 48 x 0,5                                       | 14.5                         | 230.4        | 356                  |
| 0162 299    | 52 x 0,5                                       | 14.9                         | 249.6        | 381                  |
| 0162 300    | 56 x 0,5                                       | 15.4                         | 268.8        | 409                  |
| 0162 060    | 61 x 0,5                                       | 15.9                         | 292.8        | 439                  |
| 0162 062    | 2 x 0,75                                       | 4.4                          | 14.4         | 32                   |
| 0162 063    | 3 x 0,75                                       | 4.6                          | 21.6         | 39                   |
| 0162 065    | 4 x 0,75                                       | 5.3                          | 28.8         | 51                   |
| 0162 068    | 5 x 0,75                                       | 5.8                          | 36.0         | 63                   |
| 0162 070    | 6 x 0,75                                       | 6.3                          | 43.2         | 74                   |
| 0162 072    | 7 x 0,75                                       | 6.3                          | 50.4         | 78                   |
| 0162 130    | 8 x 0,75                                       | 6.8                          | 57.6         | 90                   |
| 0162 074    | 10 x 0,75                                      | 8.0                          | 72.0         | 111                  |
| 0162 075    | 12 x 0,75                                      | 8.3                          | 86.4         | 127                  |
| 0162 142    | 16 x 0,75                                      | 9.6                          | 115.2        | 172                  |
| 0162 076    | 20 x 0,75                                      | 10.7                         | 144.0        | 213                  |
| 0162 220    | 24 x 0,75                                      | 12.1                         | 172.8        | 251                  |
| 0162 077    | 27 x 0,75                                      | 12.3                         | 194.4        | 275                  |
| 0162 301    | 30 x 0,75                                      | 12.8                         | 216.0        | 302                  |
| 0162 302    | 36 x 0,75                                      | 14.0                         | 259.2        | 365                  |
| 0162 303    | 40 x 0,75                                      | 14.5                         | 288.0        | 398                  |
| 0162 304    | 42 x 0,75                                      | 15.1                         | 302.4        | 425                  |
| 0162 305    | 44 x 0,75                                      | 15.7                         | 316.8        | 436                  |
| 0162 306    | 48 x 0,75                                      | 16.0                         | 345.6        | 469                  |
| 0162 307    | 52 x 0,75                                      | 16.5                         | 374.4        | 504                  |
| 0162 308    | 56 x 0,75                                      | 17.0                         | 403.2        | 540                  |
| 0162 309    | 61 x 0,75                                      | 17.5                         | 439.2        | 581                  |

| Product No. | Number of conductors x conductor cross-section | Cable outer diameter (appr.) | Copper index | Cable weight (appr.) |
|-------------|------------------------------------------------|------------------------------|--------------|----------------------|
|             | mm <sup>2</sup>                                | mm                           | kg/km        | kg/km                |
| 0162 079    | 2 x 1,0                                        | 4.7                          | 19.2         | 39                   |
| 0162 080    | 3 x 1,0                                        | 5.2                          | 28.8         | 51                   |
| 0162 081    | 4 x 1,0                                        | 5.7                          | 38.4         | 62                   |
| 0162 093    | 5 x 1,0                                        | 6.3                          | 48.0         | 77                   |
| 0162 082    | 6 x 1,0                                        | 6.8                          | 57.6         | 92                   |
| 0162 084    | 7 x 1,0                                        | 6.8                          | 67.2         | 97                   |
| 0162 184    | 10 x 1,0                                       | 8.7                          | 96.0         | 139                  |
| 0162 194    | 12 x 1,0                                       | 9.0                          | 115.2        | 159                  |
| 0162 086    | 16 x 1,0                                       | 10.5                         | 153.6        | 216                  |
| 0162 270    | 20 x 1,0                                       | 11.8                         | 192.0        | 273                  |
| 0162 226    | 25 x 1,0                                       | 13.5                         | 240.0        | 338                  |
| 0162 310    | 27 x 1,0                                       | 13.5                         | 259.2        | 349                  |
| 0162 311    | 30 x 1,0                                       | 14.2                         | 288.0        | 388                  |
| 0162 312    | 36 x 1,0                                       | 15.3                         | 345.6        | 462                  |
| 0162 313    | 40 x 1,0                                       | 15.9                         | 384.0        | 505                  |
| 0162 087    | 2 x 1,5                                        | 5.7                          | 28.8         | 56                   |
| 0162 089    | 3 x 1,5                                        | 6.0                          | 43.2         | 70                   |
| 0162 091    | 4 x 1,5                                        | 6.6                          | 57.6         | 87                   |
| 0162 092    | 5 x 1,5                                        | 7.3                          | 72.0         | 108                  |
| 0162 095    | 6 x 1,5                                        | 7.9                          | 86.4         | 128                  |
| 0162 096    | 7 x 1,5                                        | 7.9                          | 100.8        | 137                  |
| 0162 098    | 9 x 1,5                                        | 10.6                         | 129.6        | 196                  |
| 0162 099    | 12 x 1,5                                       | 11.0                         | 172.8        | 236                  |
| 0162 100    | 16 x 1,5                                       | 12.4                         | 230.4        | 310                  |
| 0162 314    | 20 x 1,5                                       | 14.0                         | 288.0        | 392                  |
| 0162 188    | 24 x 1,5                                       | 15.6                         | 345.6        | 455                  |
| 0162 102    | 2 x 2,5                                        | 6.5                          | 48.0         | 79                   |
| 0162 103    | 3 x 2,5                                        | 6.9                          | 72.0         | 101                  |
| 0162 123    | 4 x 2,5                                        | 7.6                          | 96.0         | 126                  |
| 0162 104    | 5 x 2,5                                        | 8.4                          | 120.0        | 158                  |
| 0162 315    | 6 x 2,5                                        | 9.6                          | 144.0        | 198                  |
| 0162 271    | 7 x 2,5                                        | 9.6                          | 168.0        | 212                  |
| 0162 316    | 10 x 2,5                                       | 12.5                         | 240.0        | 307                  |
| 0162 317    | 12 x 2,5                                       | 13.0                         | 288.0        | 355                  |
| 0162 318    | 16 x 2,5                                       | 14.6                         | 384.0        | 467                  |
| 0162 319    | 19 x 2,5                                       | 15.5                         | 456.0        | 539                  |
| 0162 320    | 24 x 2,5                                       | 18.4                         | 576.0        | 687                  |

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.