

UNITRONIC® LiYY/LiYCY/LiYCY (TP)

Multi-Conductor & Multi-Pair, Low-Voltage Communication & Control Cable; Unshielded & Shielded



UNITRONIC® LiYY/LiYCY is a multi-conductor cable for communication, signal, and control applications. It is designed for general purpose installations of electrical machinery. UNITRONIC® LiYCY has a tinned copper braid for RFI & EMI protection. UNITRONIC® LiYCY (TP) is an overall-shielded multi-paired version for data, communication, and signal applications.

Unshielded Construction

- Conductors:** Stranded bare copper
- Insulation:** PVC
- Jacket:** PVC; pebble gray

Shielded Construction

- Conductors:** Stranded bare copper
- Insulation:** PVC
- Pairs:** PVC
- Shielding:** Tinned copper braid
- Jacket:** PVC; pebble gray

Recommended Applications

RS-232; data buses; process control instrumentation; low-voltage signaling and interconnect; broadcast; applications with European DIN 47100 color code

Application Advantage

- Extended temperature range of -40°C to +80°C
- European color code DIN 47100
- Flexible for easy installation

Approvals



| Cable Attributes | | page 640 |
|------------------|-------|----------|
| OIL | OR-01 | FLAME |
| MOTION | FL-01 | MECH. |
| | | FR-02 |
| | | MP-01 |

| Complete the Installation | |
|---------------------------|------------------|
| SKINTOP® Strain Relief | EPIC® Connectors |
| page 488 | page 280 |

Technical Data

| | | | |
|-------------------------------|--|----------------------------|---|
| Minimum Bend Radius: | - for installation: 4 x cable diameter | Inductance: | - UNITRONIC® LiYY/LiYCY: Nominal 0.65 mH/km |
| | - shielded: 6 x cable diameter | | - UNITRONIC® LiYCY (TP): Nominal 0.50 mH/km |
| Temperature Range: | - for stationary use: -40°C to +80°C | Mutual Capacitance: | - Conductor/conductor: 37 pF/ft |
| | - for flexible use: -5°C to +70°C | | - Conductor/shield: 48 pF/ft |
| Nominal Voltage: | 250V | Color Code: | - UNITRONIC® LiYY/LiYCY: DIN 47100: Chart 8, page 674 |
| Test Voltage: | - 26 AWG: 1200V | | - UNITRONIC® LiYCY (TP): DIN 47100: Chart 7, page 674 |
| | - larger than 26 AWG: 1500V | Approvals: | Based on VDE 0812 |
| Conductor Stranding: | Fine wire | | RoHS |
| Insulation Resistance: | 20 GΩ x cm | | |

If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question. For current information go to our website.

UNITRONIC® LiYY

| Part Number | Number of Conductors | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® Non-Metallic PG Thread | Part Number | Number of Conductors | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® Non-Metallic PG Thread |
|-------------------------------------|----------------------|----------------------------------|------|-------------------------|--------------------------|---------------------------------|-------------------------------------|----------------------|----------------------------------|------|-------------------------|--------------------------|---------------------------------|
| 26 AWG (0.14 mm²) | | | | | | | 22 AWG (0.34 mm²) | | | | | | |
| 0028202 | 2 | 0.126 | 3.2 | 2 | 9 | S1107 | 0028402 | 2 | 0.165 | 4.2 | 5 | 17 | S1107 |
| 0028203 | 3 | 0.134 | 3.4 | 4 | 11 | S1107 | 0028403 | 3 | 0.173 | 4.4 | 7 | 21 | S1107 |
| 0028204 | 4 | 0.142 | 3.6 | 5 | 13 | S1107 | 0028404 | 4 | 0.189 | 4.8 | 9 | 29 | S1107 |
| 0028205 | 5 | 0.154 | 3.9 | 6 | 15 | S1107 | 0028405 | 5 | 0.217 | 5.5 | 12 | 36 | S1107 |
| 0028207 | 7 | 0.165 | 4.2 | 8 | 19 | S1107 | 0028407 | 7 | 0.232 | 5.9 | 16 | 42 | S1107 |
| 0028208 | 8 | 0.193 | 4.9 | 7 | 24 | S1107 | 0028408 | 8 | 0.280 | 7.1 | 18 | 49 | S1111 |
| 0028210 | 10 | 0.205 | 5.2 | 10 | 28 | S1107 | 0028410 | 10 | 0.299 | 7.6 | 22 | 55 | S1111 |
| 0028212 | 12 | 0.220 | 5.6 | 12 | 32 | S1107 | 0028412 | 12 | 0.307 | 7.8 | 27 | 69 | S1111 |
| 0028214 | 14 | 0.228 | 5.8 | 14 | 36 | S1107 | 0028414 | 14 | 0.323 | 8.2 | 31 | 73 | S1111 |
| 0028216 | 16 | 0.240 | 6.1 | 16 | 40 | S1107 | 0028416 | 16 | 0.343 | 8.7 | 35 | 85 | S1111 |
| 0028220 | 20 | 0.276 | 7.0 | 19 | 48 | S1111 | 0028420 | 20 | 0.378 | 9.6 | 44 | 107 | S1113 |
| 0028225 | 25 | 0.307 | 7.8 | 23 | 58 | S1111 | 0028421 | 21 | 0.409 | 10.4 | 47 | 112 | S1113 |
| 0028236 | 36 | 0.339 | 8.6 | 33 | 85 | S1111 | 0028425 | 25 | 0.441 | 11.2 | 55 | 128 | S1113 |
| 0028237 | 37 | 0.350 | 8.9 | 34 | 79 | S1111 | 0028430 | 30 | 0.457 | 11.6 | 66 | 152 | S1113 |
| 0028240 | 40 | 0.366 | 9.3 | 37 | 93 | S1111 | 0028436 | 36 | 0.492 | 12.5 | 80 | 191 | S1116 |
| 0028250 | 50 | 0.409 | 10.4 | 46 | 115 | S1113 | 0028440 | 40 | 0.531 | 13.5 | 89 | 213 | S1121 |
| 0028256 | 56 | 0.421 | 10.7 | 53 | 126 | S1113 | 0028450 | 50 | 0.591 | 15.0 | 110 | 274 | S1121 |
| 24 AWG (0.25 mm²) | | | | | | | 20 AWG (0.50 mm²) | | | | | | |
| 0028302 | 2 | 0.150 | 3.8 | 4 | 12 | S1107 | 0028502 | 2 | 0.185 | 4.7 | 7 | 27 | S1107 |
| 0028303 | 3 | 0.157 | 4.0 | 5 | 15 | S1107 | 0028503 | 3 | 0.197 | 5.0 | 10 | 32 | S1107 |
| 0028304 | 4 | 0.169 | 4.3 | 7 | 17 | S1107 | 0028504 | 4 | 0.220 | 5.6 | 13 | 38 | S1107 |
| 0028305 | 5 | 0.185 | 4.7 | 9 | 21 | S1107 | 0028505 | 5 | 0.240 | 6.1 | 17 | 44 | S1107 |
| 0028307 | 7 | 0.201 | 5.1 | 12 | 28 | S1107 | 0028507 | 7 | 0.272 | 6.9 | 23 | 55 | S1109 |
| 0028308 | 8 | 0.244 | 6.2 | 13 | 33 | S1107 | 0028508 | 8 | 0.315 | 8.0 | 26 | 60 | S1111 |
| 0028310 | 10 | 0.268 | 6.8 | 17 | 39 | S1109 | 0028510 | 10 | 0.339 | 8.6 | 33 | 79 | S1111 |
| 0028312 | 12 | 0.276 | 7.0 | 20 | 45 | S1111 | 0028512 | 12 | 0.350 | 8.9 | 39 | 89 | S1111 |
| 0028314 | 14 | 0.287 | 7.3 | 23 | 50 | S1111 | 0028516 | 16 | 0.402 | 10.2 | 52 | 114 | S1113 |
| 0028316 | 16 | 0.303 | 7.7 | 26 | 56 | S1111 | 0028520 | 20 | 0.449 | 11.4 | 65 | 144 | S1113 |
| 0028318 | 18 | 0.319 | 8.1 | 30 | 62 | S1111 | 0028525 | 25 | 0.484 | 12.3 | 81 | 178 | S1116 |
| 0028320 | 20 | 0.339 | 8.6 | 33 | 69 | S1111 | 0028530 | 30 | 0.520 | 13.2 | 98 | 204 | S1116 |
| 0028325 | 25 | 0.378 | 9.6 | 41 | 90 | S1113 | 0028540 | 40 | 0.622 | 15.8 | 130 | 263 | S1121 |
| 0028330 | 30 | 0.406 | 10.3 | 49 | 104 | S1113 | 18 AWG (1.00 mm²) | | | | | | |
| 0028332 | 32 | 0.421 | 10.7 | 52 | 110 | S1113 | 0028702 | 2 | 0.220 | 5.6 | 13 | 37 | S1107 |
| 0028336 | 36 | 0.437 | 11.1 | 59 | 122 | S1113 | 0028703 | 3 | 0.232 | 5.9 | 20 | 47 | S1107 |
| 0028337 | 37 | 0.449 | 11.4 | 60 | 124 | S1113 | 0028705 | 5 | 0.287 | 7.3 | 33 | 66 | S1111 |
| 0028340 | 40 | 0.472 | 12.0 | 65 | 134 | S1116 | 16 AWG (1.50 mm²) | | | | | | |
| 0028350 | 50 | 0.508 | 12.9 | 81 | 173 | S1116 | 0028802 | 2 | 0.268 | 6.8 | 20 | 50 | S1109 |
| | | | | | | | 0028803 | 3 | 0.283 | 7.2 | 30 | 60 | S1111 |
| | | | | | | | 0028804 | 4 | 0.307 | 7.8 | 40 | 71 | S1111 |

UNITRONIC® LiYCY

| Part Number | Number of Conductors | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread | Part Number | Number of Conductors | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread |
|-------------------------------------|----------------------|----------------------------------|------|-------------------------|--------------------------|--------------------------|-------------------------------------|----------------------|----------------------------------|------|-------------------------|--------------------------|--------------------------|
| 26 AWG (0.14 mm²) | | | | | | | 24 AWG (0.25 mm²) | | | | | | |
| 0034302 | 2 | 0.154 | 3.9 | 9 | 13 | 53112210 | 0034402 | 2 | 0.177 | 4.5 | 11 | 22 | 53112210 |
| 0034303 | 3 | 0.161 | 4.1 | 9 | 19 | 53112210 | 0034403 | 3 | 0.185 | 4.7 | 15 | 25 | 53112210 |
| 0034304 | 4 | 0.169 | 4.3 | 10 | 22 | 53112210 | 0034404 | 4 | 0.197 | 5.0 | 17 | 28 | 53112210 |
| 0034305 | 5 | 0.181 | 4.6 | 11 | 26 | 53112210 | 0034405 | 5 | 0.220 | 5.6 | 20 | 34 | 53112210 |
| 0034306 | 6 | 0.193 | 4.9 | 13 | 26 | 53112210 | 0034406 | 6 | 0.236 | 6.0 | 21 | 39 | 53112210 |
| 0034307 | 7 | 0.193 | 4.9 | 13 | 33 | 53112210 | 0034407 | 7 | 0.236 | 6.0 | 25 | 44 | 53112210 |
| 0034308 | 8 | 0.228 | 5.8 | 15 | 38 | 53112210 | 0034408 | 8 | 0.280 | 7.1 | 29 | 49 | 53112210 |
| 0034310 | 10 | 0.240 | 6.1 | 20 | 44 | 53112210 | 0034410 | 10 | 0.295 | 7.5 | 31 | 55 | 53112220 |
| 0034312 | 12 | 0.248 | 6.3 | 21 | 52 | 53112210 | 0034412 | 12 | 0.303 | 7.7 | 36 | 66 | 53112220 |
| 0034314 | 14 | 0.264 | 6.7 | 22 | 54 | 53112210 | 0034414 | 14 | 0.315 | 8.0 | 40 | 67 | 53112220 |
| 0034315 | 15 | 0.272 | 6.9 | 26 | 58 | 53112210 | 0034415 | 15 | 0.327 | 8.3 | 41 | 75 | 53112220 |
| 0034316 | 16 | 0.276 | 7.0 | 29 | 60 | 53112210 | 0034416 | 16 | 0.331 | 8.4 | 44 | 83 | 53112220 |
| 0034318 | 18 | 0.287 | 7.3 | 33 | 70 | 53112220 | 0034418 | 18 | 0.346 | 8.8 | 56 | 96 | 53112220 |
| 0034320 | 20 | 0.303 | 7.7 | 37 | 78 | 53112220 | 0034420 | 20 | 0.366 | 9.3 | 60 | 102 | 53112230 |
| 0034321 | 21 | 0.311 | 7.9 | 38 | 81 | 53112220 | 0034421 | 21 | 0.378 | 9.6 | 63 | 108 | 53112230 |
| 0034325 | 25 | 0.331 | 8.4 | 43 | 100 | 53112220 | 0034425 | 25 | 0.421 | 10.7 | 77 | 116 | 53112230 |
| 0034328 | 28 | 0.335 | 8.5 | 45 | 103 | 53112220 | 0034428 | 28 | 0.425 | 10.8 | 85 | 122 | 53112230 |
| 0034330 | 30 | 0.343 | 8.7 | 47 | 106 | 53112220 | 0034430 | 30 | 0.433 | 11.0 | 89 | 127 | 53112230 |
| 0034332 | 32 | 0.354 | 9.0 | 50 | 110 | 53112220 | 0034432 | 32 | 0.449 | 11.4 | 93 | 136 | 53112240 |
| 0034336 | 36 | 0.366 | 9.3 | 56 | 123 | 53112230 | 0034436 | 36 | 0.465 | 11.8 | 100 | 148 | 53112240 |
| 0034340 | 40 | 0.409 | 10.4 | 59 | 141 | 53112230 | 0034440 | 40 | 0.500 | 12.7 | 106 | 167 | 53112240 |
| 0034344 | 44 | 0.421 | 10.7 | 75 | 151 | 53112230 | 0034450 | 50 | 0.543 | 13.8 | 120 | 214 | 53112250 |
| 0034350 | 50 | 0.437 | 11.1 | 83 | 170 | 53112230 | 0034461 | 61 | 0.591 | 15.0 | 138 | 245 | 53112250 |

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section. If not otherwise specified, all values relating to the product are nominal values. For current information go to our website.

UNITRONIC® LiYCY

| Part Number | Number of Conductors | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread | Part Number | Number of Conductors | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread |
|-------------------------------------|----------------------|----------------------------------|------|-------------------------|--------------------------|--------------------------|-------------------------------------|----------------------|----------------------------------|------|-------------------------|--------------------------|--------------------------|
| 22 AWG (0.34 mm²) | | | | | | | 18 AWG (1.00 mm²) | | | | | | |
| 0034502 | 2 | 0.193 | 4.9 | 15 | 25 | 53112210 | 0034802 | 2 | 0.248 | 6.3 | 29 | 48 | 53112210 |
| 0034503 | 3 | 0.201 | 5.1 | 19 | 33 | 53112210 | 0034803 | 3 | 0.268 | 6.8 | 38 | 60 | 53112210 |
| 0034504 | 4 | 0.224 | 5.7 | 19 | 40 | 53112210 | 0034804 | 4 | 0.287 | 7.3 | 46 | 73 | 53112220 |
| 0034505 | 5 | 0.244 | 6.2 | 21 | 44 | 53112210 | 0034805 | 5 | 0.315 | 8.0 | 54 | 85 | 53112220 |
| 0034506 | 6 | 0.268 | 6.8 | 31 | 53 | 53112210 | 0034807 | 7 | 0.339 | 8.6 | 80 | 115 | 53112220 |
| 0034507 | 7 | 0.268 | 6.8 | 33 | 56 | 53112210 | 0034810 | 10 | 0.437 | 11.1 | 95 | 153 | 53112230 |
| 0034508 | 8 | 0.307 | 7.8 | 35 | 63 | 53112220 | 0034812 | 12 | 0.449 | 11.4 | 113 | 174 | 53112240 |
| 0034510 | 10 | 0.327 | 8.3 | 50 | 87 | 53112220 | 0034818 | 18 | 0.528 | 13.4 | 170 | 261 | 53112240 |
| 0034512 | 12 | 0.335 | 8.5 | 54 | 95 | 53112220 | 0034825 | 25 | 0.638 | 16.2 | 226 | 347 | 53112250 |
| 0034514 | 14 | 0.350 | 8.9 | 58 | 103 | 53112220 | 16 AWG (1.50 mm²) | | | | | | |
| 0034515 | 15 | 0.362 | 9.2 | 61 | 104 | 53112220 | 0034902 | 2 | 0.295 | 7.5 | 39 | 60 | 53112220 |
| 0034516 | 16 | 0.370 | 9.4 | 64 | 108 | 53112230 | 0034903 | 3 | 0.311 | 7.9 | 50 | 77 | 53112220 |
| 0034518 | 18 | 0.402 | 10.2 | 70 | 116 | 53112230 | 0034904 | 4 | 0.335 | 8.5 | 73 | 103 | 53112220 |
| 0034520 | 20 | 0.421 | 10.7 | 76 | 129 | 53112230 | 0034905 | 5 | 0.366 | 9.3 | 87 | 118 | 53112230 |
| 0034521 | 21 | 0.437 | 11.1 | 78 | 134 | 53112230 | 0034907 | 7 | 0.413 | 10.5 | 111 | 148 | 53112230 |
| 0034525 | 25 | 0.469 | 11.9 | 91 | 174 | 53112240 | 0034912 | 12 | 0.539 | 13.7 | 171 | 253 | 53112250 |
| 0034528 | 28 | 0.472 | 12.0 | 103 | 188 | 53112240 | 0034918 | 18 | 0.642 | 16.3 | 236 | 349 | 53112250 |
| 0034530 | 30 | 0.484 | 12.3 | 107 | 196 | 53112240 | 0034925 | 25 | 0.783 | 19.9 | 370 | 605 | 53112260 |
| 0034532 | 32 | 0.512 | 13.0 | 111 | 205 | 53112240 | | | | | | | |
| 0034536 | 36 | 0.528 | 13.4 | 121 | 222 | 53112240 | | | | | | | |
| 0034540 | 40 | 0.583 | 14.8 | 135 | 245 | 53112250 | | | | | | | |
| 0034550 | 50 | 0.626 | 15.9 | 158 | 290 | 53112250 | | | | | | | |
| 20 AWG (0.50 mm²) | | | | | | | | | | | | | |
| 0034602 | 2 | 0.220 | 5.6 | 20 | 36 | 53112210 | | | | | | | |
| 0034603 | 3 | 0.232 | 5.9 | 26 | 45 | 53112210 | | | | | | | |
| 0034604 | 4 | 0.248 | 6.3 | 29 | 52 | 53112210 | | | | | | | |
| 0034605 | 5 | 0.276 | 7.0 | 35 | 60 | 53112210 | | | | | | | |
| 0034606 | 6 | 0.299 | 7.6 | 40 | 70 | 53112220 | | | | | | | |
| 0034607 | 7 | 0.299 | 7.6 | 44 | 75 | 53112220 | | | | | | | |
| 0034608 | 8 | 0.343 | 8.7 | 48 | 91 | 53112220 | | | | | | | |
| 0034610 | 10 | 0.366 | 9.3 | 60 | 108 | 53112230 | | | | | | | |
| 0034612 | 12 | 0.378 | 9.6 | 67 | 119 | 53112230 | | | | | | | |
| 0034618 | 18 | 0.465 | 11.8 | 91 | 161 | 53112240 | | | | | | | |
| 0034620 | 20 | 0.476 | 12.1 | 101 | 185 | 53112240 | | | | | | | |
| 0034625 | 25 | 0.539 | 13.7 | 142 | 237 | 53112250 | | | | | | | |
| 0034630 | 30 | 0.571 | 14.5 | 155 | 267 | 53112250 | | | | | | | |

UNITRONIC® LiYCY (TP)

| Part Number | Number of Pairs | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread | Part Number | Number of Pairs | Nominal Outer Diameter (in) (mm) | | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread |
|-------------------------------------|-----------------|----------------------------------|------|-------------------------|--------------------------|--------------------------|-------------------------------------|-----------------|----------------------------------|------|-------------------------|--------------------------|--------------------------|
| 26 AWG (0.14 mm²) | | | | | | | 20 AWG (0.50 mm²) | | | | | | |
| 0035131 | 2 | 0.224 | 5.7 | 13 | 26 | 53112210 | 0035810 | 2 | 0.339 | 8.6 | 33 | 62 | 53112220 |
| 0035141 | 3 | 0.228 | 5.8 | 16 | 32 | 53112210 | 0035811 | 3 | 0.343 | 8.7 | 50 | 87 | 53112220 |
| 0035132 | 4 | 0.244 | 6.2 | 18 | 36 | 53112210 | 0035812 | 4 | 0.370 | 9.4 | 56 | 98 | 53112230 |
| 0035133 | 6 | 0.280 | 7.1 | 33 | 57 | 53112210 | 0035813 | 6 | 0.437 | 11.1 | 74 | 133 | 53112230 |
| 0035150 | 8 | 0.323 | 8.2 | 37 | 65 | 53112220 | 0035814 | 8 | 0.516 | 13.1 | 94 | 174 | 53112240 |
| 0035134 | 10 | 0.343 | 8.7 | 40 | 74 | 53112220 | 0035816 | 12 | 0.587 | 14.9 | 134 | 238 | 53112250 |
| 0035135 | 12 | 0.350 | 8.9 | 45 | 95 | 53112220 | 0035817 | 16 | 0.650 | 16.5 | 162 | 308 | 53112250 |
| 0035136 | 16 | 0.402 | 10.2 | 54 | 103 | 53112230 | 18 AWG (1.00 mm²) | | | | | | |
| 0035142 | 20 | 0.445 | 11.3 | 66 | 124 | 53112240 | 0035830 | 2 | 0.354 | 9.0 | 57 | 95 | 53112220 |
| 0035137 | 25 | 0.492 | 12.5 | 76 | 160 | 53112240 | 0035831 | 3 | 0.409 | 10.4 | 65 | 116 | 53112230 |
| 24 AWG (0.25 mm²) | | | | | | | 0035832 | 4 | 0.445 | 11.3 | 82 | 142 | 53112240 |
| 0035800 | 2 | 0.248 | 6.3 | 19 | 36 | 53112210 | 0035836 | 5 | 0.465 | 11.8 | 109 | 179 | 53112240 |
| 0035801 | 3 | 0.280 | 7.1 | 27 | 46 | 53112210 | | | | | | | |
| 0035802 | 4 | 0.299 | 7.6 | 31 | 54 | 53112220 | | | | | | | |
| 0035803 | 6 | 0.335 | 8.5 | 47 | 77 | 53112220 | | | | | | | |
| 0035804 | 8 | 0.406 | 10.3 | 52 | 87 | 53112230 | | | | | | | |
| 0035805 | 10 | 0.433 | 11.0 | 69 | 106 | 53112230 | | | | | | | |
| 0035806 | 12 | 0.445 | 11.3 | 81 | 128 | 53112240 | | | | | | | |
| 0035807 | 16 | 0.492 | 12.5 | 99 | 160 | 53112240 | | | | | | | |
| 0035808 | 25 | 0.634 | 16.1 | 138 | 231 | 53112250 | | | | | | | |

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section. If not otherwise specified, all values relating to the product are nominal values. For current information go to our website.