

# ÖLFLEX® TRAY II/TRAY II CY

Extremely oil-resistant & flexible tray cable with UL & CSA; unshielded & shielded



ÖLFLEX® TRAY II is an industrial grade tray cable with superior oil performance for long cable life. It has a pressure-extruded jacket and fine copper stranding for excellent flexibility, making it much easier to pull through tray. With UL TC-ER approval, no conduit is needed so you can reduce material costs along with saving on labor. ÖLFLEX® TRAY II CY is designed with foil tape and tinned copper braid shield for improved effectiveness.

## Recommended applications

Industrial plant expansions; automotive plants; tray wiring; anywhere VNTC® cables are used

## Approvals



| Cable attributes |       | page 648 |       |
|------------------|-------|----------|-------|
| OIL              | OR-03 | FLAME    | FR-03 |
| MOTION           | WT-02 | MECH.    | MP-03 |

## Unshielded construction

- Conductors:** finely stranded bare copper
- Insulation:** specially formulated PVC/nylon
- Jacket:** specially formulated thermoplastic polymer; black

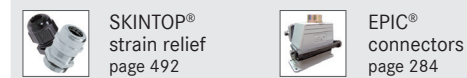
## Shielded construction

- Conductors:** finely stranded bare copper
- Insulation:** specially formulated PVC/nylon
- Shielding:** foil tape; tinned copper braid (70% coverage)
- Jacket:** specially formulated thermoplastic polymer; black

## Application advantage

- Oil-resistant pressure-extruded jacket improves flexibility
- Easier to pull than standard tray cables; lower labor costs
- UL TC-ER reduces material costs; no conduit is needed
- Black numbered conductors for easy identification
- Improved shielding effectiveness

## Complete the installation



## Technical data

|  |  |
|--|--|
| <p> <b>Minimum bend radius:</b><br/>                 - for installation:<br/>                   - &lt; 1 AWG: 4 x cable diameter<br/>                   - ≥ 1 AWG: 6 x cable diameter<br/>                 - shielded: 6 x cable diameter</p> <p> <b>Temperature range:</b><br/>                 - UL/CSA TC: -25°C to +90°C<br/>                 - for stationary use: -40°C to +105°C<br/>                 - for flexible use: -25°C to +105°C</p> <p> <b>Nominal voltage:</b><br/>                 - UL/CSA TC: 600V<br/>                 - UL WTTC/CSA AWM: 1000V</p> <p> <b>Test voltage:</b><br/>                 - up to 1 AWG: 2000V<br/>                 - 1 AWG &amp; larger: 4000V</p> <p> <b>Conductor stranding:</b><br/>                 - 18-6 AWG: Class 5 fine wire*<br/>                 - 4-2 AWG: Class K fine wire<br/>                 - 1 AWG - 500 KCMIL: stranded wire<br/>                 * 18 AWG meets only Class 5 cross section and DC resistance</p> | <p> <b>Color code:</b> black with white printing, plus green/yellow ground</p> <p> <b>Approvals:</b></p> <p>UL: TC-ER per UL 1277<br/>                 MTW per UL 1063<br/>                 WTTC per UL 2277<br/>                 submersible pump (14 - 2 AWG)<br/>                 PLTC-ER per UL 13 (18 - 12 AWG)<br/>                 ITC-ER per UL 2250 (18 - 12 AWG)<br/>                 DP-1 per UL 1690<br/>                 AWM 20886 (18 - 2 AWG)</p> <p>Attributes: UL Oil Res I/II<br/>                 75°C wet; 90°C dry<br/>                 sunlight resistant<br/>                 direct burial<br/>                 NFPA 79</p> <p>NEC: Class 1 Division 2 per NEC Article 501<br/>                 Canada: c(UL) CIC/TC FT4 (18 - 4/0 AWG)<br/>                 CSA AWM I/II A/B FT4</p> <p>Additional: torsion rated for wind market<br/>                 (± 90°/m) &amp; (± 150°/m)<br/>                 (18 - 2 AWG)<br/>                 CE &amp; RoHS<br/>                 MSHA: P-07-KA050016-MSHA<br/>                 (shielded only)</p> |
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 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.

ÖLFLEX® TRAY II

| Part number                        | Number of conductors incl. ground | Nominal outer diameter |      | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® SL PG thread |
|------------------------------------|-----------------------------------|------------------------|------|-----------------------|------------------------|-----------------------|
|                                    |                                   | in                     | mm   |                       |                        |                       |
| <b>18 AWG (1 mm<sup>2</sup>)</b>   |                                   |                        |      |                       |                        |                       |
| 221803                             | 3                                 | 0.297                  | 7.5  | 20                    | 57                     | S2111                 |
| 221804                             | 4                                 | 0.320                  | 8.1  | 26                    | 66                     | S2111                 |
| 221805                             | 5                                 | 0.346                  | 8.8  | 33                    | 77                     | S2111                 |
| 221807                             | 7                                 | 0.373                  | 9.5  | 46                    | 99                     | S2111                 |
| 221809                             | 9                                 | 0.429                  | 10.9 | 59                    | 112                    | S2113                 |
| 221812                             | 12                                | 0.477                  | 12.1 | 79                    | 172                    | S2116                 |
| 221818                             | 18                                | 0.587                  | 14.9 | 118                   | 245                    | S2121                 |
| 221825                             | 25                                | 0.664                  | 16.9 | 164                   | 322                    | S2121                 |
| 221850                             | 50                                | 0.939                  | 23.9 | 303                   | 646                    | S2129                 |
| <b>16 AWG (1.5 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                       |
| 221603                             | 3                                 | 0.325                  | 8.3  | 29                    | 68                     | S2111                 |
| 221604                             | 4                                 | 0.351                  | 8.9  | 39                    | 84                     | S2111                 |
| 221605                             | 5                                 | 0.381                  | 9.7  | 49                    | 99                     | S2113                 |
| 221607                             | 7                                 | 0.412                  | 10.5 | 68                    | 128                    | S2113                 |
| 221608                             | 8                                 | 0.444                  | 11.3 | 78                    | 137                    | S2113                 |
| 221609                             | 9                                 | 0.476                  | 12.1 | 88                    | 172                    | S2116                 |
| 221612                             | 12                                | 0.565                  | 14.4 | 117                   | 220                    | S2121                 |
| 221616                             | 16                                | 0.621                  | 15.8 | 155                   | 271                    | S2121                 |
| 221618                             | 18                                | 0.652                  | 16.6 | 175                   | 289                    | S2121                 |
| 221625                             | 25                                | 0.741                  | 18.8 | 242                   | 397                    | S2129                 |
| 221634                             | 34                                | 0.904                  | 23.0 | 296                   | 540                    | S2129                 |
| 221641                             | 41                                | 0.986                  | 25.0 | 357                   | 626                    | S2136                 |
| 221650                             | 50                                | 1.048                  | 26.6 | 436                   | 760                    | S2136                 |
| 221661                             | 61                                | 1.085                  | 27.6 | 533                   | 771                    | S2136                 |
| <b>14 AWG (2.5 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                       |
| 221403                             | 3                                 | 0.362                  | 9.2  | 49                    | 88                     | S2111                 |
| 221404                             | 4                                 | 0.392                  | 10.0 | 65                    | 106                    | S2113                 |
| 221405                             | 5                                 | 0.427                  | 10.8 | 81                    | 128                    | S2113                 |
| 221407                             | 7                                 | 0.463                  | 11.8 | 113                   | 170                    | S2116                 |
| 221409                             | 9                                 | 0.571                  | 14.5 | 146                   | 225                    | S2121                 |
| 221412                             | 12                                | 0.636                  | 16.2 | 194                   | 309                    | S2121                 |
| 221418                             | 18                                | 0.737                  | 18.7 | 290                   | 439                    | S2129                 |
| 221425                             | 25                                | 0.886                  | 22.5 | 404                   | 586                    | S2129                 |
| <b>12 AWG (4 mm<sup>2</sup>)</b>   |                                   |                        |      |                       |                        |                       |
| 221203                             | 3                                 | 0.423                  | 10.7 | 78                    | 126                    | S2113                 |
| 221204                             | 4                                 | 0.460                  | 11.7 | 104                   | 152                    | S2113                 |

\* SKINTOP® MS-M with metric thread

ÖLFLEX® TRAY II CY

| Part number                        | Number of conductors incl. ground | Nominal outer diameter |      | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® MS-SC PG thread |
|------------------------------------|-----------------------------------|------------------------|------|-----------------------|------------------------|--------------------------|
|                                    |                                   | in                     | mm   |                       |                        |                          |
| <b>18 AWG (1 mm<sup>2</sup>)</b>   |                                   |                        |      |                       |                        |                          |
| 2218030                            | 3                                 | 0.322                  | 8.2  | 29                    | 79                     | 53112220                 |
| 2218040                            | 4                                 | 0.346                  | 8.8  | 38                    | 93                     | 53112220                 |
| 2218050                            | 5                                 | 0.371                  | 9.4  | 45                    | 99                     | 53112230                 |
| 2218070                            | 7                                 | 0.398                  | 10.1 | 59                    | 130                    | 53112230                 |
| 2218120                            | 12                                | 0.508                  | 12.9 | 101                   | 223                    | 53112240                 |
| 2218180                            | 18                                | 0.618                  | 15.7 | 145                   | 295                    | 53112250                 |
| 2218250                            | 25                                | 0.695                  | 17.7 | 238                   | 386                    | 53112260                 |
| <b>16 AWG (1.5 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                          |
| 2216030                            | 3                                 | 0.350                  | 8.9  | 41                    | 97                     | 53112220                 |
| 2216040                            | 4                                 | 0.376                  | 9.6  | 51                    | 117                    | 53112230                 |
| 2216050                            | 5                                 | 0.406                  | 10.3 | 63                    | 128                    | 53112230                 |
| 2216070                            | 7                                 | 0.443                  | 11.3 | 88                    | 165                    | 53112240                 |
| 2216120                            | 12                                | 0.596                  | 15.1 | 144                   | 287                    | 53112250                 |
| 2216180                            | 18                                | 0.683                  | 17.3 | 210                   | 346                    | 53112260                 |
| 2216250                            | 25                                | 0.772                  | 19.6 | 280                   | 430                    | 53112260                 |
| <b>14 AWG (2.5 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                          |
| 2214030                            | 3                                 | 0.387                  | 9.8  | 62                    | 121                    | 53112230                 |
| 2214040                            | 4                                 | 0.423                  | 10.7 | 85                    | 150                    | 53112230                 |
| 2214050                            | 5                                 | 0.458                  | 11.6 | 101                   | 181                    | 53112240                 |

\* SKINTOP® MS-SC with metric thread

| Part number                             | Number of conductors incl. ground | Nominal outer diameter |      | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® SL PG thread |
|---|-----------------------------------|------------------------|------|-----------------------|------------------------|-----------------------|
|   |                                   | in                     | mm   |                       |                        |                       |
| 221205                                  | 5                                 | 0.503                  | 12.8 | 129                   | 187                    | S2116                 |
| 221207                                  | 7                                 | 0.581                  | 14.8 | 181                   | 258                    | S2121                 |
| <b>10 AWG (6 mm<sup>2</sup>)</b>        |                                   |                        |      |                       |                        |                       |
| 221003                                  | 3                                 | 0.498                  | 12.6 | 117                   | 218                    | S2116                 |
| 221004                                  | 4                                 | 0.578                  | 14.7 | 155                   | 264                    | S2121                 |
| 221005                                  | 5                                 | 0.631                  | 16.0 | 194                   | 317                    | S2121                 |
| 221007                                  | 7                                 | 0.686                  | 17.4 | 271                   | 445                    | S2129                 |
| <b>8 AWG (10 mm<sup>2</sup>)</b>        |                                   |                        |      |                       |                        |                       |
| 220804                                  | 4                                 | 0.703                  | 17.9 | 258                   | 384                    | S2129                 |
| 220805                                  | 5                                 | 0.772                  | 19.6 | 323                   | 518                    | S2129                 |
| <b>6 AWG (16 mm<sup>2</sup>)</b>        |                                   |                        |      |                       |                        |                       |
| 220603                                  | 3                                 | 0.776                  | 19.7 | 310                   | 454                    | S2129                 |
| 220604                                  | 4                                 | 0.899                  | 22.8 | 413                   | 580                    | S2129                 |
| 220605                                  | 5                                 | 0.982                  | 24.9 | 517                   | 725                    | S2136                 |
| <b>4 AWG (21 mm<sup>2</sup>)</b>        |                                   |                        |      |                       |                        |                       |
| 220403                                  | 3                                 | 0.999                  | 25.3 | 386                   | 919                    | S2136                 |
| 220404                                  | 4                                 | 1.094                  | 27.8 | 544                   | 952                    | S2136                 |
| <b>2 AWG (33.7 mm<sup>2</sup>)</b>      |                                   |                        |      |                       |                        |                       |
| 220203                                  | 3                                 | 1.155                  | 29.3 | 658                   | 1085                   | S2136                 |
| 220204                                  | 4                                 | 1.272                  | 32.3 | 859                   | 1320                   | S2248                 |
| <b>1 AWG (42.5 mm<sup>2</sup>)</b>      |                                   |                        |      |                       |                        |                       |
| 220104                                  | 4                                 | 1.373                  | 34.9 | 1033                  | 1780                   | 53112170*             |
| <b>1/0 AWG (53.7 mm<sup>2</sup>)</b>    |                                   |                        |      |                       |                        |                       |
| 221104                                  | 4                                 | 1.474                  | 37.4 | 1337                  | 2035                   | 53112070*             |
| <b>2/0 AWG (67.7 mm<sup>2</sup>)</b>    |                                   |                        |      |                       |                        |                       |
| 222204                                  | 4                                 | 1.601                  | 40.7 | 1602                  | 2475                   | 53112070*             |
| <b>3/0 AWG (85.3 mm<sup>2</sup>)</b>    |                                   |                        |      |                       |                        |                       |
| 223304                                  | 4                                 | 1.828                  | 46.4 | 2000                  | 3015                   | 53112080*             |
| <b>4/0 AWG (107.6 mm<sup>2</sup>)</b>   |                                   |                        |      |                       |                        |                       |
| 224404                                  | 4                                 | 1.980                  | 50.3 | 2503                  | 3835                   | 53112080*             |
| <b>250 KCMIL (127.1 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                       |
| 222504                                  | 4                                 | 2.190                  | 55.6 | 3105                  | 4405                   | 53112511*             |
| <b>350 KCMIL (177.9 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                       |
| 223504                                  | 4                                 | 2.337                  | 59.4 | 4602                  | 5995                   | 53112511*             |
| <b>500 KCMIL (254.1 mm<sup>2</sup>)</b> |                                   |                        |      |                       |                        |                       |
| 225004                                  | 4                                 | 2.813                  | 71.5 | 5649                  | 6216                   | 53112512*             |

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.