

UNITRONIC® 300/300 S

Flexible 300V multi-conductor industrial signal & control cable; unshielded & shielded

control cable (20 AWG - 16 AWG)



signal cable (24 AWG - 22 AWG)



UNITRONIC® 300/300 S is a rugged, multi-conductor, low voltage control and signal cable for internal and external wiring of OEM equipment for industrial applications. The jacket is very oil resistant and is pressure-extruded for improved flexibility and easier installation. UNITRONIC® 300 S has a foil tape and tinned copper braid shield for maximum RFI & EMI protection.

Recommended applications

Process control; electrical equipment; industrial machinery; low-voltage control interconnect

Approvals



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

Unshielded construction

- Conductors:** finely stranded tinned copper
- Insulation:** blended PVC
- Jacket:** specially formulated PVC; gray

Shielded construction

- Conductors:** finely stranded tinned copper
- Insulation:** blended PVC
- Shielding:** tri-laminate foil shield and tinned copper braid (75% coverage); drain wire
- Jacket:** specially formulated PVC; gray

Application advantage

- Extended temperature rating of -40°C to +105°C
- Flexible design for ease of routing
- Suitable for use in cable tray
- Oil- and UV-resistant jacket (Oil Res I)
- Sequential foot marking for ease of installation

Complete the installation

| | | | |
|--|------------------------------------|--|------------------------------|
| | SKINTOP® strain relief page 492 | | EPIC® connectors page 284 |
|--|------------------------------------|--|------------------------------|

Technical data

- Minimum bend radius:**
 - for installation: 4 x cable diameter
 - shielded: 6 x cable diameter
- Temperature range:**
 - for stationary use: -40°C to +105°C
 - for flexible use: -25°C to +105°C
- Nominal voltage:** 300V
- Test voltage:** 1500V
- Conductor stranding:** fine wire
- Color code:**
 - 24 - 22 AWG: chart 4, page 681
 - 20 - 16 AWG: chart 5, page 681

- Approvals:**
 - UL: CMG per UL 444
 - PLTC-ER per UL 13 (18 & 16 AWG)
 - PLTC per UL 13 (22 & 20 AWG)
 - ITC-ER per UL 2250 (18 & 16 AWG)
 - AWM 2464
 - Attributes: UL Oil Res I
 - 40°C cold bend; -25°C cold impact
 - sunlight resistant
 - direct burial
 - NFPA 79
 - NEC: meets NEC Art. 725 & 800
 - Class 1 Division 2 (PLTC only)
 - Canada: cUL CMG FT4
 - CSA AWM I/II A/B FT1
 - Additional: CE & RoHS

UNITRONIC® 300

| Part number | Number of conductors | Nominal outer diameter | | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® SL PG thread |
|-------------------------------------|----------------------|------------------------|------|-----------------------|------------------------|--------------------------|
| | | in | mm | | | |
| 24 AWG (0.24 mm²) | | | | | | |
| 302402 | 2 | 0.165 | 4.2 | 3 | 13 | S1107 |
| 302403 | 3 | 0.172 | 4.4 | 5 | 15 | S1107 |
| 302404 | 4 | 0.183 | 4.6 | 6 | 18 | S1107 |
| 302406 | 6 | 0.209 | 5.3 | 9 | 22 | S1107 |
| 302408 | 8 | 0.223 | 5.7 | 12 | 29 | S1107 |
| 302410 | 10 | 0.253 | 6.4 | 15 | 35 | S1109 |
| 302415 | 15 | 0.284 | 7.2 | 23 | 46 | S1111 |
| 302420 | 20 | 0.321 | 8.2 | 30 | 57 | S1111 |
| 302425 | 25 | 0.355 | 9.0 | 38 | 71 | S1111 |
| 22 AWG (0.38 mm²) | | | | | | |
| 302202 | 2 | 0.179 | 4.5 | 5 | 15 | S1107 |
| 302203 | 3 | 0.187 | 4.7 | 7 | 20 | S1107 |
| 302204 | 4 | 0.200 | 5.1 | 10 | 22 | S1107 |
| 302206 | 6 | 0.229 | 5.8 | 15 | 31 | S1107 |
| 302208 | 8 | 0.245 | 6.2 | 19 | 37 | S1107 |
| 302210 | 10 | 0.289 | 7.3 | 24 | 44 | S1111 |
| 302215 | 15 | 0.324 | 8.2 | 36 | 62 | S1111 |
| 302220 | 20 | 0.355 | 9.0 | 47 | 99 | S1111 |
| 302225 | 25 | 0.414 | 10.5 | 59 | 126 | S1113 |
| 20 AWG (0.62 mm²) | | | | | | |
| 302002 | 2 | 0.225 | 5.7 | 8 | 37 | S1107 |
| 302003 | 3 | 0.237 | 6.0 | 12 | 40 | S1107 |
| 302004 | 4 | 0.256 | 6.5 | 15 | 51 | S1109 |
| 302006 | 6 | 0.308 | 7.8 | 23 | 66 | S1111 |
| 302008 | 8 | 0.331 | 8.4 | 30 | 90 | S1111 |
| 302010 | 10 | 0.381 | 9.7 | 38 | 97 | S1113 |
| 302015 | 15 | 0.452 | 11.5 | 57 | 121 | S1113 |
| 302020 | 20 | 0.497 | 12.6 | 76 | 174 | S1116 |
| 302025 | 25 | 0.554 | 14.1 | 94 | 238 | S1121 |

| Part number | Number of conductors | Nominal outer diameter | | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® SL PG thread |
|-------------------------------------|----------------------|------------------------|------|-----------------------|------------------------|--------------------------|
| | | in | mm | | | |
| 18 AWG (1 mm²) | | | | | | |
| 301802 | 2 | 0.241 | 6.1 | 12 | 42 | S1107 |
| 301803 | 3 | 0.254 | 6.5 | 18 | 44 | S1109 |
| 301804 | 4 | 0.285 | 7.2 | 24 | 53 | S1111 |
| 301806 | 6 | 0.333 | 8.5 | 36 | 68 | S1111 |
| 301808 | 8 | 0.358 | 9.1 | 47 | 95 | S1111 |
| 301810 | 10 | 0.437 | 11.1 | 61 | 130 | S1113 |
| 301815 | 15 | 0.494 | 12.5 | 91 | 165 | S1116 |
| 301820 | 20 | 0.544 | 13.8 | 121 | 220 | S1121 |
| 301825 | 25 | 0.629 | 16.0 | 151 | 276 | S1121 |
| 16 AWG (1.32 mm²) | | | | | | |
| 301602 | 2 | 0.263 | 6.7 | 17 | 55 | S1109 |
| 301603 | 3 | 0.288 | 7.3 | 25 | 60 | S1111 |
| 301604 | 4 | 0.312 | 7.9 | 33 | 75 | S1111 |
| 301606 | 6 | 0.366 | 9.3 | 49 | 110 | S1111 |
| 301608 | 8 | 0.417 | 10.6 | 65 | 163 | S1113 |
| 301610 | 10 | 0.481 | 12.2 | 82 | 181 | S1116 |
| 301615 | 15 | 0.546 | 13.9 | 122 | 242 | S1121 |
| 301620 | 20 | 0.603 | 15.3 | 163 | 331 | S1121 |
| 301625 | 25 | 0.696 | 17.7 | 204 | 410 | S1129 |

UNITRONIC® 300 S

| Part number | Number of conductors | Nominal outer diameter | | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® SL PG thread |
|-------------------------------------|----------------------|------------------------|------|-----------------------|------------------------|--------------------------|
| | | in | mm | | | |
| 24 AWG (0.24 mm²) | | | | | | |
| 302402S | 2 | 0.193 | 4.9 | 10 | 19 | 53112210 |
| 302403S | 3 | 0.201 | 5.1 | 12 | 22 | 53112210 |
| 302404S | 4 | 0.209 | 5.3 | 14 | 26 | 53112210 |
| 302406S | 6 | 0.236 | 6.0 | 18 | 31 | 53112210 |
| 302408S | 8 | 0.248 | 6.3 | 22 | 37 | 53112210 |
| 302410S | 10 | 0.288 | 7.3 | 26 | 44 | 53112210 |
| 302415S | 15 | 0.319 | 8.1 | 35 | 60 | 53112220 |
| 302420S | 20 | 0.346 | 8.8 | 44 | 71 | 53112220 |
| 302425S | 25 | 0.382 | 9.7 | 53 | 86 | 53112230 |
| 22 AWG (0.38 mm²) | | | | | | |
| 302202S | 2 | 0.202 | 5.1 | 13 | 22 | 53112210 |
| 302203S | 3 | 0.210 | 5.3 | 16 | 26 | 53112210 |
| 302204S | 4 | 0.223 | 5.7 | 19 | 31 | 53112210 |
| 302206S | 6 | 0.252 | 6.4 | 25 | 42 | 53112210 |
| 302208S | 8 | 0.278 | 7.1 | 30 | 48 | 53112210 |
| 302210S | 10 | 0.312 | 7.9 | 37 | 57 | 53112220 |
| 302215S | 15 | 0.347 | 8.8 | 52 | 77 | 53112220 |
| 302220S | 20 | 0.378 | 9.6 | 64 | 95 | 53112230 |
| 302225S | 25 | 0.445 | 11.3 | 81 | 117 | 53112240 |
| 20 AWG (0.62 mm²) | | | | | | |
| 302002S | 2 | 0.248 | 6.3 | 19 | 48 | 53112210 |
| 302003S | 3 | 0.260 | 6.6 | 23 | 51 | 53112210 |
| 302004S | 4 | 0.289 | 7.3 | 27 | 62 | 53112220 |
| 302006S | 6 | 0.331 | 8.4 | 35 | 79 | 53112220 |
| 302008S | 8 | 0.354 | 9.0 | 46 | 106 | 53112220 |
| 302010S | 10 | 0.426 | 10.8 | 56 | 115 | 53112230 |
| 302015S | 15 | 0.483 | 12.3 | 77 | 143 | 53112240 |
| 302020S | 20 | 0.528 | 13.4 | 88 | 203 | 53112240 |
| 302025S | 25 | 0.585 | 14.9 | 104 | 271 | 53112250 |

| Part number | Number of conductors | Nominal outer diameter | | Copper weight lbs/mft | Approx. weight lbs/mft | SKINTOP® SL PG thread |
|-------------------------------------|----------------------|------------------------|------|-----------------------|------------------------|--------------------------|
| | | in | mm | | | |
| 18 AWG (1 mm²) | | | | | | |
| 301802S | 2 | 0.266 | 6.8 | 25 | 53 | 53112210 |
| 301803S | 3 | 0.289 | 7.3 | 33 | 57 | 53112220 |
| 301804S | 4 | 0.310 | 7.9 | 41 | 68 | 53112220 |
| 301806S | 6 | 0.358 | 9.1 | 55 | 88 | 53112220 |
| 301808S | 8 | 0.383 | 9.7 | 69 | 115 | 53112230 |
| 301810S | 10 | 0.469 | 11.9 | 88 | 154 | 53112240 |
| 301815S | 15 | 0.525 | 13.3 | 121 | 196 | 53112240 |
| 301820S | 20 | 0.575 | 14.6 | 157 | 256 | 53112250 |
| 301825S | 25 | 0.660 | 16.8 | 189 | 311 | 53112250 |
| 16 AWG (1.32 mm²) | | | | | | |
| 301602S | 2 | 0.298 | 7.6 | 34 | 66 | 53112220 |
| 301603S | 3 | 0.313 | 8.0 | 43 | 79 | 53112220 |
| 301604S | 4 | 0.337 | 8.6 | 52 | 95 | 53112220 |
| 301606S | 6 | 0.413 | 10.5 | 71 | 141 | 53112230 |
| 301608S | 8 | 0.448 | 11.4 | 91 | 181 | 53112240 |
| 301610S | 10 | 0.512 | 13.0 | 114 | 209 | 53112240 |
| 301615S | 15 | 0.577 | 14.7 | 157 | 342 | 53112250 |
| 301620S | 20 | 0.654 | 16.6 | 201 | 401 | 53112250 |
| 301625S | 25 | 0.727 | 18.5 | 247 | 496 | 53112260 |

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.