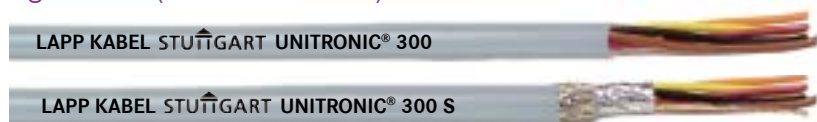


**UNITRONIC® 300/300 S****Flexible 300V multi-conductor industrial signal & control cable; unshielded & shielded**

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**

|                             |                    |
|-----------------------------|--------------------|
| <b>Minimum bend radius:</b> |                    |
| - for installation:         | 4 x cable diameter |
| - shielded:                 | 6 x cable diameter |

|                           |                 |
|---------------------------|-----------------|
| <b>Temperature range:</b> |                 |
| - for stationary use:     | -40°C to +105°C |
| - for flexible use:       | -25°C to +105°C |

|                         |      |
|-------------------------|------|
| <b>Nominal voltage:</b> | 300V |
|-------------------------|------|

|                      |       |
|----------------------|-------|
| <b>Test voltage:</b> | 1500V |
|----------------------|-------|

|                             |           |
|-----------------------------|-----------|
| <b>Conductor stranding:</b> | fine wire |
|-----------------------------|-----------|

|                    |                   |
|--------------------|-------------------|
| <b>Color code:</b> |                   |
| - 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<br>in                      mm |      | Copper weight<br>lbs/mft | Approx. weight<br>lbs/mft | SKINTOP® SL<br>PG thread |
|-------------------|----------------------|------------------------------------------------------|------|--------------------------|---------------------------|--------------------------|
| 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<br>in mm |      | Copper weight<br>lbs/mft | Approx. weight<br>lbs/mft | SKINTOP® SL<br>PG thread |
|-------------------|----------------------|---------------------------------|------|--------------------------|---------------------------|--------------------------|
| 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<br>in mm |      | Copper weight<br>lbs/mft | Approx. weight<br>lbs/mft | SKINTOP® SL<br>PG thread |
|-------------------|----------------------|---------------------------------|------|--------------------------|---------------------------|--------------------------|
| 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<br>in mm |      | Copper weight<br>lbs/mft | Approx. weight<br>lbs/mft | SKINTOP® SL<br>PG thread |
|-------------------|----------------------|---------------------------------|------|--------------------------|---------------------------|--------------------------|
| 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.