

# 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			
<b>24 AWG (0.24 mm<sup>2</sup>)</b>						
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
<b>22 AWG (0.38 mm<sup>2</sup>)</b>						
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
<b>20 AWG (0.62 mm<sup>2</sup>)</b>						
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			
<b>18 AWG (1 mm<sup>2</sup>)</b>						
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
<b>16 AWG (1.32 mm<sup>2</sup>)</b>						
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

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Part number	Number of conductors	Nominal outer diameter		Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® SL PG thread
		in	mm			
<b>24 AWG (0.24 mm<sup>2</sup>)</b>						
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
<b>22 AWG (0.38 mm<sup>2</sup>)</b>						
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
<b>20 AWG (0.62 mm<sup>2</sup>)</b>						
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			
<b>18 AWG (1 mm<sup>2</sup>)</b>						
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
<b>16 AWG (1.32 mm<sup>2</sup>)</b>						
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.