

# UNITRONIC® 300/300 S

## Multi-Conductor, 300V Flexible 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.

### 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

### Recommended Applications

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

### Approvals



### 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

Cable Attributes		page 640	
OIL	OR-02	FLAME	FR-03
MOTION	WT-02	MECH.	MP-02

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

### 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 673  
 - 20 - 16 AWG: Chart 5, page 673

**Approvals:**

UL: CMG per UL 444  
 PLTC-ER per UL 13  
 ITC-ER per UL 2250  
 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 FT 1

Additional: 24 AWG is not PLTC  
 18 & 16 AWG rated PLTC-ER & ITC-ER  
 CE & RoHS

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® 300

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
<b>24 AWG (0.24 mm<sup>2</sup>)</b>							<b>18 AWG (1.00 mm<sup>2</sup>)</b>						
302402	2	0.165	4.2	3	13	S1107	301802	2	0.241	6.1	12	42	S1107
302403	3	0.172	4.4	5	15	S1107	301803	3	0.254	6.5	18	44	S1109
302404	4	0.183	4.6	6	18	S1107	301804	4	0.285	7.2	24	53	S1111
302406	6	0.209	5.3	9	22	S1107	301806	6	0.333	8.5	36	68	S1111
302408	8	0.223	5.7	12	29	S1107	301808	8	0.358	9.1	47	95	S1111
302410	10	0.253	6.4	15	35	S1109	301810	10	0.437	11.1	61	130	S1113
302415	15	0.284	7.2	23	46	S1111	301815	15	0.494	12.5	91	165	S1116
302420	20	0.321	8.2	30	57	S1111	301820	20	0.544	13.8	121	220	S1121
302425	25	0.355	9.0	38	71	S1111	301825	25	0.629	16.0	151	276	S1121
<b>22 AWG (0.38 mm<sup>2</sup>)</b>							<b>16 AWG (1.32 mm<sup>2</sup>)</b>						
302202	2	0.179	4.5	5	15	S1107	301602	2	0.263	6.7	17	55	S1109
302203	3	0.187	4.7	7	20	S1107	301603	3	0.288	7.3	25	60	S1111
302204	4	0.200	5.1	10	22	S1107	301604	4	0.312	7.9	33	75	S1111
302206	6	0.229	5.8	15	31	S1107	301606	6	0.366	9.3	49	110	S1111
302208	8	0.245	6.2	19	37	S1107	301608	8	0.417	10.6	65	163	S1113
302210	10	0.289	7.3	24	44	S1111	301610	10	0.481	12.2	82	181	S1116
302215	15	0.324	8.2	36	62	S1111	301615	15	0.546	13.9	122	242	S1121
302220	20	0.355	9.0	47	99	S1111	301620	20	0.603	15.3	163	331	S1121
302225	25	0.414	10.5	59	126	S1113	301625	25	0.696	17.7	204	410	S1129
<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							

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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
<b>24 AWG (0.24 mm<sup>2</sup>)</b>							<b>18 AWG (1.00 mm<sup>2</sup>)</b>						
302402S	2	0.193	4.9	10	19	53112210	301802S	2	0.266	6.8	25	53	53112210
302403S	3	0.201	5.1	12	22	53112210	301803S	3	0.289	7.3	33	57	53112220
302404S	4	0.209	5.3	14	26	53112210	301804S	4	0.310	7.9	41	68	53112220
302406S	6	0.236	6.0	18	31	53112210	301806S	6	0.358	9.1	55	88	53112220
302408S	8	0.248	6.3	22	37	53112210	301808S	8	0.383	9.7	69	115	53112230
302410S	10	0.280	7.1	26	44	53112210	301810S	10	0.469	11.9	88	154	53112240
302415S	15	0.311	7.9	35	60	53112220	301815S	15	0.525	13.3	121	196	53112240
302420S	20	0.346	8.8	44	71	53112220	301820S	20	0.575	14.6	157	256	53112250
302425S	25	0.382	9.7	53	86	53112230	301825S	25	0.660	16.8	189	311	53112250
<b>22 AWG (0.38 mm<sup>2</sup>)</b>							<b>16 AWG (1.32 mm<sup>2</sup>)</b>						
302202S	2	0.202	5.1	13	22	53112210	301602S	2	0.298	7.6	34	66	53112220
302203S	3	0.210	5.3	16	26	53112210	301603S	3	0.313	8.0	43	79	53112220
302204S	4	0.223	5.7	19	31	53112210	301604S	4	0.337	8.6	52	95	53112220
302206S	6	0.252	6.4	25	42	53112210	301606S	6	0.413	10.5	71	141	53112230
302208S	8	0.278	7.1	30	48	53112210	301608S	8	0.448	11.4	91	181	53112240
302210S	10	0.312	7.9	37	57	53112220	301610S	10	0.512	13.0	114	209	53112240
302215S	15	0.347	8.8	52	77	53112220	301615S	15	0.577	14.7	157	342	53112250
302220S	20	0.378	9.6	64	95	53112230	301620S	20	0.654	16.6	201	401	53112250
302225S	25	0.445	11.3	81	117	53112240	301625S	25	0.727	18.5	247	496	53112260
<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							

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.