



UNITRONIC® 300 / UNITRONIC® 300 S

Control and signal cables with small cross sections - UL/CSA listed

Info

- Shielded Version:
Formerly UNITRONIC® 300 CY,
now UNITRONIC® 300 S



Benefits

- Wide application range due to multiple certifications
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)

Application range

- Control and signal cables for internal and external wiring
- Process control; electrical equipment; industrial machinery; low-voltage control interconnect
- For the North American market
- Thanks to the DIRECT BURIAL approval, direct burial of versions with the nominal conductor cross sections 18 AWG and 16 AWG is normatively permitted in the USA

Product features

- CMG (for USA and Canada) and PLTC (for USA) for tray use in North America (24 AWG has got no PLTC certification)
- PLTC-ER & ITC-ER ("ER" = Exposed Run: According to NEC/ NFPA 70 for unprotected transitions of the cable, each not longer than 1.8 m or 6 ft., outside of trays and in the USA) for 18 AWG and 16 AWG
- UV-resistant UL SUN RES
- DIRECT BURIAL certification for 18 AWG & 16 AWG for normatively permitted, direct burial in the USA
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / Approvals

- UL: CMG per UL 444; PLTC-ER per UL 13 (18 AWG + 16 AWG); PLTC (not for 24 AWG); ITC-ER per UL 2250 (18 AWG + 16 AWG); UL AWM Style 2464
- According to NEC/ NFPA 70, 2014 HANDBOOK, ARTICLE 501, II., 501.10, (B), (1), and apart from any kind of "Flexible Connections", suitability for Class I, Division 2 in the USA, and that for all versions with ITC-ER as per NEC 2014 ARTICLE 727.4 and in conjunction with additional UL listed components as well as for all versions with PLTC or PLTC-ER in line with the provisions of NEC 2014 ARTICLE 725 and in mandatory conjunction with tray use and additional, UL listed components
- Canada: c(UL) CMG FT4, CSA AWM I/II A/B FT1
- Oil-resistant according to UL OIL RES I

Product Make-up

- Fine-wire strand made of tinned-copper wires
- Core insulation made of PVC compound
- UNITRONIC® 300 S: with overall foil tape wrapping, drain wire, tin-plated copper braiding (75 % coverage)
- Outer jacket: Specially Formulated PVC
- Color of the outer jacket: Dark gray (similar to RAL 7005)

Technical data

- Classification**
ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable
- Core identification code**
refer to Appendix T9
- Conductor stranding**
Fine wire
- Torsion movement in WTG**
TW-0 & TW-1, refer to Appendix T0
- Minimum bending radius**
During installation: 4 x cable diameter
Screened: 6 x outer diameter
- Nominal voltage**
according to UL: 300 V
IEC: not for power transmission
- Test voltage**
1500 V
- Temperature range**
Occasional flexing: -25°C to +105°C (AWM for USA: +80°C)
Fixed installation: -40°C to +105°C (AWM for USA: +80°C)

Article number	Article designation	Number of cores and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® 300					
301602	UNITRONIC® 300	2 x AWG16	6.7	25	83
301802	UNITRONIC® 300	2 x AWG18	6.1	18.3	61
302006	UNITRONIC® 300	6 x AWG20	7.5	29.5	97
302204	UNITRONIC® 300	4 x AWG22	5	13.7	33
302210	UNITRONIC® 300	10 x AWG22	7	34.896	67
UNITRONIC® 300 S					
301602S	UNITRONIC® 300 S	2 x AWG16	7.6	50.6	101
301606S	UNITRONIC® 300 S	6 x AWG16	9.9	105.7	210
301802S	UNITRONIC® 300 S	2 x AWG18	6.8	37.2	75
301803S	UNITRONIC® 300 S	3 x AWG18	7.3	49.1	85
301804S	UNITRONIC® 300 S	4 x AWG18	7.9	59.6	104
302002S	UNITRONIC® 300 S	2 x AWG20	6.3	28.3	60
302004S	UNITRONIC® 300 S	4 x AWG20	7.3	40.2	88
302006S	UNITRONIC® 300 S	6 x AWG20	8.4	55.1	119
302206S	UNITRONIC® 300 S	6 x AWG22	6.4	35.7	68

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil 152 m; Drum 305 m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- UNITRONIC® 300 STP refer to page 304

Accessories

- SKINTOP® ST-M refer to page 712