



DIN47100, 250V, 300V, shielded, twisted pairs, UL/CSA, AWG

**TKD**  
 an INFINIT® brand


## APPLICATION

UL/CSA approved data transmission cable, control and connecting cable predominantly for transmission of analog and digital signals in process controlled facilities in measurement and control technology for lossless data and signal transmission. For fixed laying and flexible applications with undefined cable routing and without tensile stress. Suitable for use in dry and humid rooms. Outdoor use only with UV-protection, no laying underground.



## SPECIAL FEATURES

- twisted pairs
- largely resistant to acids, bases and specified types of oil
- LABS-/silicone-free (during production)
- recommended for EMC-applications
- adapted to connectors according to DIN 41612 resp. VG Norm95324 also D-Sub according to MIL-C24308 and capable for soldering, crimp and cut-and-clamp

## PRODUCT DETAILS

### DESIGN

Conductor material	copper strand tinned
Conductor class	7 wired; AWG28/7 = 7 x 0,13 mm (0,09 mm <sup>2</sup> ); AWG24/7 = 7 x 0,203 mm (0,22 mm <sup>2</sup> )
Core insulation	AWG24: special SR-PVC (Semi-Rigid-PVC); AWG28: special-PVC
Core identification	acc. to DIN 47100 different colours, with repetition from 23rd pair
Stranding	2 cores twisted to a pair; pairs stranded in layers
Overall shield	copper braid tinned; coverage approx. 85% with subjacent tinned drain wire
Outer sheath material	PVC
Sheath colour	grey, RAL 7032

### ELECTRICAL PROPERTIES

Rated voltage AC IEC	AWG28/7 = 250 V acc. to VDE; 30 V acc. to UL style 2560; AWG24/7 = 300 V acc. to VDE and UL style 2464
Testing voltage	1.2 kV
Conductor resistance	on AWG28/7 < 250 Ω/km; on AWG24/7 < 130 Ω/km
Insulation resistance	min. 200 MΩ x km
Current carrying capacity	acc. to DIN VDE, s. Techn. Guidelines

### MECHANICAL & DYNAMIC PROPERTIES

Min. bending radius fixed	up to 12 mm Ø 5 x d; up to 20 mm Ø 7,5 x d; > 20 mm Ø 10 x d
Min. bending radius moved	up to 12 mm Ø 10 x d; up to 20 mm Ø 15 x d; > 20 mm Ø 20 x d

### THERMAL PROPERTIES

Operat. temp. fixed min./max. [°C]	-30 °C / +80 °C; acc. to UL -5 °C / +60 °C
Operat. temp. moved min/max [°C]	-5 °C / +70 °C; acc. to UL -5 °C / +60 °C

**PROPERTIES IN CASE OF FIRE****Burning behavior**

self-extinguishing &amp; flame-retardant acc.to IEC 60332-1

**STANDARDS & APPROVALS****Standard**

UL style 2560 (AWG28/7) resp. UL style 2464 (AWG 24/7)

**Approvals**

UL/CSA: AWG28/7: 60 °C - 30 V; AWG24/7: 60 °C - 300 V

**ITEM OVERVIEW****DATATRONIC-CY (TP) UL 2464 / CSA**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
0500091	2 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	6,5	17,0	40,0
0500096	3 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	6,8	24,0	50,0
0500100	4 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	6,9	43,5	65,0
0500104	5 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	7,9	46,4	88,0
0500105	7 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	8,9	78,0	113,0
0500081	10 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	10,1	98,0	140,0
0500080	12 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	11,1	110,0	155,0
0500085	16 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	12,2	142,0	195,0
0500088	20 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	12,8	168,0	235,0
0500092	30 X 2 X AWG 24/7 (0,22 mm <sup>2</sup> )	15,4	258,0	325,0

**DATATRONIC-CY (TP) UL 2560 / CSA**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
0500103	5 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	5,3	22,0	48,0
0500106	8 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	6,2	29,0	68,0
0506559	10 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	6,6	31,8	91,0
0500083	13 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	7,4	42,0	116,0
0500082	16 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	8,0	48,0	130,0
0507316	18 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	8,1	53,0	140,0
0500084	19 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	8,2	54,0	145,0
0500087	25 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	9,3	68,0	198,0
0500093	32 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	9,9	90,0	240,0
0500094	34 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	9,8	95,0	255,0
0500098	48 X 2 X AWG 28/7 (0,09 mm <sup>2</sup> )	11,4	122,0	290,0