



DIN47100, 250V, shielded, twisted pairs, blue

**APPLICATION**

exclusively for use in self-protective circuits, as impulse and data transmission cable, control and connecting cable 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
- for intrinsically safe electric circuits
- protection class "i" acc. to VDE 0165
- largely resistant to acids, bases and specified types of oil
- intrinsically safe systems are circuits where no spark and no thermic effect in normal operation or in failure can ignite explosive surrounding areas. These products are intended for use within <50 V AC resp. <75 V DC voltage. Therefore they are not subject to the EU Low Voltage Directive.

PRODUCT DETAILS**DESIGN**

Conductor material	bare copper strand
Conductor class	acc. to IEC 60228 cl. 5
Core insulation	PVC
Core identification	acc. to DIN 47100 different colours
Stranding	2 cores twisted to a pair, pairs stranded in layers
Protection against contact	polyester foil
Overall shield	copper braid tinned; coverage approx. 85%
Outer sheath material	PVC
Sheath colour	blue, RAL 5015

ELECTRICAL PROPERTIES

Rated voltage AC IEC	U ₀ /U: 300/500 V (see special features)
Testing voltage	core/core: 1,5 kV; core/shield: 2 kV
Conductor resistance	acc. to IEC 60228 cl. 5
Insulation resistance	min. 20 MΩ x km
Current carrying capacity	acc. to DIN VDE, s. Techn. Guidelines
Capacity	core/core ca. 120 nF/km; core/shield ca. 160 nF/km

MECHANICAL & DYNAMIC PROPERTIES

Min. bending radius fixed	up to 12 mm Ø 5 x d; > 12 mm Ø 7,5 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
Operat. temp. moved min/max [°C]	-5 °C / +70 °C

PROPERTIES IN CASE OF FIRE

Burning behavior	self-extinguishing & flame-retardant acc.to IEC 60332-1
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STANDARDS & APPROVALS

Standard	similar to DIN VDE 0812
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ITEM OVERVIEW**PAARTRONIC-CY LIYCY (TP) EB**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
0501162	2 X 2 X 0,5	7,9	48,1	93,0
0501147	3 X 2 X 0,5	8,5	73,7	129,0
0501191	4 X 2 X 0,5	9,1	82,0	146,0
0501152	6 X 2 X 0,5	10,8	110,0	198,0
0507107	8 X 2 X 0,5	12,4	147,0	259,0
0501153	12 X 2 X 0,5	14,5	198,3	354,0
0502302	16 X 2 X 0,5	16,5	245,5	459,0
0501157	24 X 2 X 0,5	19,8	394,0	570,0
0501155	2 X 2 X 0,75	8,4	64,6	106,0
0501178	3 X 2 X 0,75	8,9	84,0	140,0
0501195	4 X 2 X 0,75	10,2	108,0	179,0
0501158	5 X 2 X 0,75	10,9	126,0	215,0
0501212	6 X 2 X 0,75	12,1	146,0	246,0
0501223	8 X 2 X 0,75	14,3	180,0	305,0
0502633	10 X 2 X 0,75	16,0	220,0	380,0
0501109	12 X 2 X 0,75	16,0	261,0	456,0
0507384	14 X 2 X 0,75	17,5	264,0	470,0
0501122	16 X 2 X 0,75	18,2	336,0	492,0
0501132	20 X 2 X 0,75	21,1	405,0	680,0
0507219	24 X 2 X 0,75	22,1	490,0	793,0
0507382	2 X 2 X 1	9,5	84,0	142,0
0501174	3 X 2 X 1	10,1	96,0	173,0
0501192	4 X 2 X 1	10,5	121,0	212,0
0501206	5 X 2 X 1	12,2	161,0	266,0
0501207	8 X 2 X 1	15,1	240,0	400,0
0501208	10 X 2 X 1	16,0	282,0	510,0
0501209	12 X 2 X 1	17,6	324,0	590,0
0501229	2 X 2 X 1,5	10,6	112,0	165,0
0501230	3 X 2 X 1,5	11,3	140,0	218,0
0501232	4 X 2 X 1,5	11,6	176,0	265,0
0501233	5 X 2 X 1,5	13,4	212,0	310,0
0501226	8 X 2 X 1,5	16,5	322,0	642,0
0501239	10 X 2 X 1,5	17,8	380,0	870,0
0501240	12 X 2 X 1,5	19,3	442,0	939,0