



## UNITRONIC® Li2YCY (TP)

Screened data transmission cable mit PE core insulation, 7-wire strands and twisted pairs



### Info

- Cables for RS485/RS422



## UNITRONIC® Li2YCY (TP) fine-wire

Screened data transmission cable mit PE core insulation, fine wire strands and twisted pairs



### Info

- Cables for RS485/RS422



## UNITRONIC® Li2YCYv (TP)

Screened data transmission cable mit PE core insulation, reinforced outer sheath and twisted pairs



### Info

- Cables for RS485/RS422



### Benefits

- 7-wire stranded conductor (UNITRONIC® Li2YCY (TP) and UNITRONIC® Li2YCYv (TP) can be used for Maxi TERMI-POINT® wiring
- Overall braid minimises electrical interference
- Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)

### Application range

- Particularly suitable for wiring data systems with transmission rates up to 10 Megabits per second, and is qualified for the RS422 and RS485 interfaces.
- For fixed and limited flexible installation
- Can be used in dry or damp rooms
- Signal-, control- and measuring cable, for transmission of low, sensitive signals and high bit rates
- UNITRONIC® Li2YCYv (TP) with reinforced black outer sheath (Yv) is suitable for indoors and outdoors and provides enhanced appropriateness for direct burial in the ground

### Product features

- Flame-retardant according IEC 60332-1-2

### Norm references / Approvals

- Based on VDE 0812

### Product Make-up

#### UNITRONIC® Li2YCY (TP)

- 7-wire bare stranded copper conductor
- Core insulation made of polyethylene (PE)
- TP structure
- Tinned-copper braiding
- Outer sheath made of PVC
- Outer sheath colour: pebble grey (RAL 7032)

#### UNITRONIC® Li2YCY (TP) fine-wire

- Conductors: Finely stranded bare copper
- Core insulation made of polyethylene (PE)
- TP structure
- Tinned-copper braiding
- Outer sheath made of PVC
- Outer sheath colour: pebble grey (RAL 7032)

#### UNITRONIC® Li2YCYv (TP)

- 7-wire bare stranded copper conductor
- Core insulation made of polyethylene (PE)
- TP structure
- Tinned-copper braiding
- Outer sheath made of PVC
- Outer sheath colour: pebble grey (RAL 7032)
- Wall thickness of the outer sheath is increased ("Yv")
- Outer sheath colour: black (RAL 9005)

### Technical data



**Classification**  
ETIM 5.0 Class-ID: EC000830  
ETIM 5.0 Class-Description: Data cable



**Core identification code**  
DIN 47100, refer to Appendix T9



**Mutual capacitance**  
At 800 Hz: max. 60 nF/km



**Peak operating voltage**  
(not for power applications) 250 V



**Inductivity**  
approx. 0.65 mH/km



**Conductor stranding**  
**UNITRONIC® Li2YCY (TP)**  
Stranded conductor, based on VDE 0881, 7-wire  
**UNITRONIC® Li2YCY (TP) fine-wire**  
Stranded conductor, fine-wire  
**UNITRONIC® Li2YCYv (TP)**  
Stranded conductor, based on VDE 0881, 7-wire



**Minimum bending radius**  
Occasional flexing: 15 x outer diameter  
Fixed installation: 6 x outer diameter



**Short-range crosstalk attenuation**  
Up to 1 MHz min. 50 dB  
Up to 10 MHz min. 40 dB



**Test voltage**  
Core/core: 2000 V  
Core/screen: 1000 V



**Characteristic impedance**  
100 ± 15 Ohm (> 1 MHz)



**Temperature range**  
Occasional flexing: -5°C to +70°C  
Fixed installation: -40°C to +80°C

Article number	Number of pairs and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
<b>UNITRONIC® Li2YCY (TP)</b>				
0031320	2 x 2 x 0,22	6.5	24.2	59
0031321	3 x 2 x 0,22	7.1	28.6	66
0031322	4 x 2 x 0,22	7.3	34.2	78
0031323	8 x 2 x 0,22	9.1	70	125
0031324	10 x 2 x 0,22	10.4	76	143
0031335	1 x 2 x 0,34	5.8	20	44
0031325	2 x 2 x 0,34	7.7	34.1	79
0031326	3 x 2 x 0,34	8.4	43	89
0031327	4 x 2 x 0,34	8.7	47	101
0031328	8 x 2 x 0,34	11	85.8	176
0031336	1 x 2 x 0,5	6.3	29	53
0031330	2 x 2 x 0,5	8.5	37	85
0031331	3 x 2 x 0,5	9.3	55	105
0031332	4 x 2 x 0,5	9.6	60	122
0031333	8 x 2 x 0,5	12.7	113.3	213
0031334	10 x 2 x 0,5	14.8	154	261
<b>UNITRONIC® Li2YCY (TP) fine-wire</b>				
0031370	1 x 2 x 0,25	5.7	14	38
0031371	2 x 2 x 0,25	6.9	28	56
0031372	3 x 2 x 0,25	7.5	39.6	64
0031373	5 x 2 x 0,25	8.3	50	93
<b>UNITRONIC® Li2YCYv (TP) black for outdoor installation and direct burial, 7-wire</b>				
0031350	2 x 2 x 0,22	8.1	24.2	79
0031351	3 x 2 x 0,22	8.7	28.6	93
0031352	4 x 2 x 0,22	8.9	34.2	100
0031353	8 x 2 x 0,22	10.7	70	156
0031354	10 x 2 x 0,22	12	76	185
0031365	1 x 2 x 0,34	7.4	20	69
0031355	2 x 2 x 0,34	9.3	34.1	102
0031356	3 x 2 x 0,34	10	43	117
0031357	4 x 2 x 0,34	10.3	52.8	130
0031358	8 x 2 x 0,34	12.6	85.8	206
0031366	1 x 2 x 0,5	7.9	29	79
0031360	2 x 2 x 0,5	10.1	37	120
0031361	3 x 2 x 0,5	10.9	55	142
0031362	4 x 2 x 0,5	11.2	60	160
0031363	8 x 2 x 0,5	13.9	113.3	251
0031364	10 x 2 x 0,5	16	148	303

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](http://www.lappkabel.de/en/cable-standardlengths)

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).

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#### Similar products

- UNITRONIC® BUS LD refer to page 323

#### Accessories

- SKINTOP® MS-SC-M refer to page 732
- Multipurpose shears A and B refer to page 998
- STAR STRIP stripping tool refer to page 1000
- STEEL GUN HT-338 cable tie pliers refer to page 1068
- LS steel cable ties refer to page 1066



## UNITRONIC® Li2YCY PiMF

Screened data transmission cable with PE core insulation and pairs in metalfoil



### Info

- Metal foil screened pairs

### Benefits

- Data transmission cable with low capacitance, pair screening and overall copper braiding
- Particularly suitable for wiring data systems and controls in large industrial plants
- 7-wire stranded conductor can be used for Maxi TERMI-POINT® wiring
- Individually screened pairs and the overall braid minimise electrical interference
- Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)

### Application range

- For enhanced requirements in near-end cross-talk attenuation and high electrical interference in the circuits
- Suitable for the transmission with varying in frequency and voltage or sensitive signals
- Can be used multifunctional in electronics of computer systems, electronic control equipment, office machines, balances, etc.
- For measurement value transmission and serial 2-wire interfaces
- Intended for limited flexible use, and for fixed installation in dry or damp interiors

### Product features

- Flame-retardant according IEC 60332-1-2

### Product Make-up

- 7-wire or fine wire (1mm<sup>2</sup>) bare stranded copper conductor
- Core insulation made of polyethylene (PE)
- Cores twisted into pairs
- Foil wrapping, static screening made of aluminium-laminated plastic film with copper drain wire for each pair
- Bare copper screen braiding
- Outer sheath made of PVC
- Outer sheath colour: pebble grey (RAL 7032)

### Technical data

	<b>Classification</b> ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
	<b>Core identification code</b> 0.22 mm <sup>2</sup> -0.5 mm <sup>2</sup> : according to DIN 47100, see table T9 1.0 mm <sup>2</sup> : a-core: white, b-core: black
	<b>Mutual capacitance</b> At 800 Hz: 0.22 mm <sup>2</sup> : max. 70 nF/km 0.34 mm <sup>2</sup> : max. 70 nF/km 0.5 mm <sup>2</sup> : max. 75 nF/km 1.0 mm <sup>2</sup> : max. 85 nF/km
	<b>Peak operating voltage</b> (not for power applications) 250 V
	<b>Inductivity</b> Approx. 0.4 mH/km
	<b>Conductor stranding</b> Stranded conductor, based on VDE 0881, 7-wire
	<b>Minimum bending radius</b> Occasional flexing: 20 x outer diameter Fixed installation: 10 x outer diameter
	<b>Test voltage</b> Core/core: 2000 V Core/screen: 1000 V
	<b>Characteristic impedance</b> approx. 85 Ohm (> 1 MHz)
	<b>Temperature range</b> Occasional flexing: -5°C to +70°C Fixed installation: -40°C to +80°C

Article number	Number of pairs and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
<b>UNITRONIC® Li2YCY PiMF</b>				
<b>7-wire</b>				
0034040	2 x 2 x 0,22	7.7	33	75.4
0034041	3 x 2 x 0,22	8.1	42	86
0034042	4 x 2 x 0,22	8.7	50	99
0034043	8 x 2 x 0,22	10.9	85	161.4
0034044	10 x 2 x 0,22	12.5	100	186.4
0034045	2 x 2 x 0,34	9	43	70
0034046	3 x 2 x 0,34	9.4	55	85
0034047	4 x 2 x 0,34	9.8	64	103
0034048	8 x 2 x 0,34	12.9	127	191
<b>7-wire</b>				
0034060	2 x 2 x 0,5	9.9	51	96
0034061	3 x 2 x 0,5	10.4	66	116
0034062	4 x 2 x 0,5	11.3	71	141
0034063	5 x 2 x 0,5	11.8	92	180
0034064	8 x 2 x 0,5	14.5	153	271
0034065	10 x 2 x 0,5	16.6	182	327
<b>Fine wire</b>				
0034070	2 x 2 x 1	9.9	82	126
0034071	3 x 2 x 1	11.8	109	156
0034072	4 x 2 x 1	12.7	133	193
0034073	10 x 2 x 1	19.7	326	492

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](http://www.lappkabel.de/en/cable-standardlengths)  
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum  
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