1030400	DATA SHEET	LAPP
valid from: 2021-04-22	UNITRONIC® LiYY (TP) BK	

Application

UNITRONIC® LiYY (TP) BK is a twisted pair data cable for low frequency applications. The cable is designed for fixed installation and for conditional flexible use. It can be used in dry and damp rooms and also outdoors.
The twisted pairs with short lay lengths provides good decoupling of the conductor circuits.
The cable is used for example in computer systems, instrumentation technology, office equipment and balances.

Design

Design	based on standard VDE 0812 and EN 50288-7
Certification	EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper wires
Insulation	special PVC-based compound
Core identification code	acc. to DIN 47100
Stranding	cores twisted to pairs, pairs are stranded in layers, wrapping with foil on the outer layer
Outer sheath	special PVC-based compound colour: black (similar RAL 9005)

Electrical properties at 20 °C

Conductor resistance	0.14 mm²: max. 138.0 Ω/km 0.25 mm²: max. 79.0 Ω/km 0.34 mm²: max. 57.0 Ω/km 0.5 mm²: max. 39.0 Ω/km 0.75 mm²: max. 26.0 Ω/km 1 mm²: max. 19.5 Ω/km 1.5 mm²: max. 13.3 Ω/km
Specific volume resistivity	> 20 G Ω x cm
Mutual capacitance	C/C: approx. 120 nF/km (at 800 Hz)
Inductance	approx. 0.65 mH/km
Maximum operating voltage	0.14 mm²: 350 V (not for power applications) ≥ 0.25 mm²: 500 V (not for power applications) Must not be connected to the mains supply voltage.
Test voltage	0.14 mm²: 1200 V ≥ 0.25 mm²: 1500 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 10 x outer diameter fixed installation: 4 x outer diameter
Temperature range	occasional flexing: - 5 °C up to +70 °C fixed installation: - 40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Weather and UV resistance	acc. to EN 50525-1 cables with black outer sheath are suitable for permanent outdoor use
General requirements	These cables are conform to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and EU-Directive 2014/35/EU (Low Voltage Directive). A part of these cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

1030600	DATA SHEET	LAPP
valid from: 2021-04-22	UNITRONIC® LiYCY (TP) BK	

Application

UNITRONIC® LiYCY (TP) BK is a screened, twisted pair data cable for low frequency applications. The cable is designed for fixed installation and for conditional flexible use. It can be used in dry and damp rooms and also outdoors.
The twisted pairs with short lay lengths provides good decoupling of the conductor circuits. The screen provides protection against electromagnetic interferences.
The cable is used for example in computer systems, instrumentation technology, office equipment and balances.

Design

Design	based on standard VDE 0812 and EN 50288-7
Certification	EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper wires
Insulation	special PVC-based compound
Core identification code	acc. to DIN 47100
Stranding	cores twisted to pairs, pairs are stranded in layers, wrapping with foil on the outer layer
Screen	braiding with tinned copper wires
Outer sheath	special PVC-based compound colour: black (similar RAL 9005)

Electrical properties at 20 °C

Conductor resistance	0.14 mm²: max. 138.0 Ω/km 0.25 mm²: max. 79.0 Ω/km 0.34 mm²: max. 57.0 Ω/km 0.5 mm²: max. 39.0 Ω/km 0.75 mm²: max. 26.0 Ω/km 1 mm²: max. 19.5 Ω/km 1.5 mm²: max. 13.3 Ω/km
Specific volume resistivity	> 20 G Ω x cm
Mutual capacitance	C/C: approx. 120 nF/km C/S: approx. 160 nF/km (at 800 Hz)
Inductance	approx. 0.65 mH/km
Maximum operating voltage	0.14 mm²: 350 V (not for power applications) ≥ 0.25 mm²: 500 V (not for power applications) Must not be connected to the mains supply voltage.
Test voltage	0.14 mm²: 1200 V ≥ 0.25 mm²: 1500 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 6 x outer diameter
Temperature range	occasional flexing: - 5 °C up to +70 °C fixed installation: - 40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Weather and UV resistance	acc. to EN 50525-1 cables with black outer sheath are suitable for permanent outdoor use
General requirements	These cables are conform to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and EU-Directive 2014/35/EU (Low Voltage Directive). A part of these cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

1030200	DATA SHEET	LAPP
valid from: 2021-04-22	UNITRONIC® LiYY BK	

Application

UNITRONIC® LiYY BK is a data cable for low frequency applications. The cable is designed for fixed installation and for conditional flexible use. It can be used in dry and damp rooms and also outdoors.
The cable is used for example in computer systems, instrumentation technology, office equipment and balances.

Design

Design	based on standard VDE 0812 and EN 50288-7
Certification	EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper wires
Insulation	special PVC-based compound
Core identification code	acc. to DIN 47100
Stranding	cores are stranded in layers
Outer sheath	special PVC-based compound colour: black (similar RAL 9005)

Electrical properties at 20 °C

Conductor resistance	0.14 mm²: max. 138.0 Ω/km 0.25 mm²: max. 79.0 Ω/km 0.34 mm²: max. 57.0 Ω/km 0.5 mm²: max. 39.0 Ω/km 0.75 mm²: max. 26.0 Ω/km 1 mm²: max. 19.5 Ω/km 1.5 mm²: max. 13.3 Ω/km
Specific volume resistivity	> 20 G Ω x cm
Mutual capacitance	C/C: approx. 120 nF/km (at 800 Hz)
Inductance	approx. 0.65 mH/km
Maximum operating voltage	0.14 mm²: 350 V (not for power applications) ≥ 0.25 mm²: 500 V (not for power applications) Must not be connected to the mains supply voltage.
Test voltage	0.14 mm²: 1200 V ≥ 0.25 mm²: 1500 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 10 x outer diameter fixed installation: 4 x outer diameter
Temperature range	occasional flexing: - 5 °C up to +70 °C fixed installation: - 40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Weather and UV resistance	acc. to EN 50525-1 cables with black outer sheath are suitable for permanent outdoor use
General requirements	These cables are conform to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and EU-Directive 2014/35/EU (Low Voltage Directive). A part of these cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

1030450	DATA SHEET	LAPP
valid from: 2021-04-22	UNITRONIC® LiYCY BK	

Application

UNITRONIC® LiYCY BK is a screened data cable for low frequency applications. The cable is designed for fixed installation and for conditional flexible use. It can be used in dry and damp rooms and also outdoors.
The screen provides protection against electromagnetic interferences.
The cable is used for example in computer systems, instrumentation technology, office equipment and balances.

Design

Design	based on standard VDE 0812 and EN 50288-7
Certification	EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper wires
Insulation	special PVC-based compound
Core identification code	acc. to DIN 47100
Stranding	cores are stranded in layers, wrapping with foil on the outer layer
Screen	braiding with tinned copper wires
Outer sheath	special PVC-based compound colour: black (similar RAL 9005)

Electrical properties at 20 °C

Conductor resistance	0.14 mm²: max. 138.0 Ω/km 0.25 mm²: max. 79.0 Ω/km 0.34 mm²: max. 57.0 Ω/km 0.5 mm²: max. 39.0 Ω/km 0.75 mm²: max. 26.0 Ω/km 1 mm²: max. 19.5 Ω/km 1.5 mm²: max. 13.3 Ω/km
Specific volume resistivity	> 20 G Ω x cm
Mutual capacitance	C/C: approx. 120 nF/km C/S: approx. 160 nF/km (at 800 Hz)
Inductance	approx. 0.65 mH/km
Maximum operating voltage	0.14 mm²: 350 V (not for power applications) ≥ 0.25 mm²: 500 V (not for power applications) Must not be connected to the mains supply voltage.
Test voltage	0.14 mm²: 1200 V ≥ 0.25 mm²: 1500 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 6 x outer diameter
Temperature range	occasional flexing: - 5 °C up to +70 °C fixed installation: - 40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Weather and UV resistance	acc. to EN 50525-1 cables with black outer sheath are suitable for permanent outdoor use
General requirements	These cables are conform to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and EU-Directive 2014/35/EU (Low Voltage Directive). A part of these cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).