

**LiY (with coloured stripes)****DB4 125000EN**valid from: **2011-02-04****Application**

LiY is a flexible single-core hook-up cable with single-layer PVC insulation and the maximally permissible conductor temperature of +70°C. This hook-up wire is used for the (internal) wiring of electronic component (assemblies), telecommunication devices and installations, measuring equipment as well as information processing equipment, for example – taking the voltages typical of this cable type into account. LiY can be installed inside of dry and damp interiors as well as obligatorily protected outdoors. Most of all outdoors and despite protected laying, the maximum LiY **conductor** temperature of +70°C must be respected. Beyond, LiY is heat-shock- and heat-pressure-tested in line with VDE. Moreover, LiY is no low voltage cable and doesn't fall under the European low voltage directive due to its low operating voltage. LiY distributed by U.I. Lapp GmbH is based on VDE 0812.

Peak working voltage:	0.14 mm <sup>2</sup> :	500 V
	0.25 mm <sup>2</sup> :	900 V
Operating voltage:	< 50 V AC	
Peak-to-peak voltage UPP:	≤ 250 V	
Current rating:	VDE 0891-1	
Outside of devices/appliances/equipment:	Not for power current installation purposes	

**Design**

Conductor:	Copper conductor, smooth, flexible	
Core insulation:	PVC-based compound YI2/TI2 acc. VDE 0207-4 & HD 21.1	
Wall thickness (min./nom.):	0.25 mm/0.3 mm	
Colour:	Diverse: Single- and double-coloured; double-coloured also as product „LiY with coloured stripes“ → helical colour gradient around the core	
Outer core diameter (nom./max.):	0.14 mm <sup>2</sup> :	1.1 mm/1.2 mm
	0.25 mm <sup>2</sup> :	1.3 mm/1.4 mm

**Electrical properties at +20°C**

Conductor resistance:	0.14 mm <sup>2</sup> :	≤ 142 Ω/km
	0.25 mm <sup>2</sup> :	≤ 77,5 Ω/km
Insulation resistance:	≥ 200 MΩkm	
Test voltage (r.m.s., 50 Hz, 1 min.):	0.14 mm <sup>2</sup> :	1200 V AC
	0.25 mm <sup>2</sup> :	2500 V AC
Direct-current voltage stability:	Preliminary test:	800 V AC, 4-h 20°C water bath, thereof 10 min. of voltage
	Main test:	110 V DC, 20°C water bath without insulation flashover

**Mechanical, thermal and chemical properties**

Conductor temperature range:	Fix installation:	-30°C to +70°C
	Flexible use:	-5°C to +70°C
Flame resistance:	IEC 60332-1-2	
Solderability test:	VDE 0472-808/02.84, 4.2.4.1 & test method B	
Soldering shrinkage:	VDE 0472-808/02.84, test method C & VDE 0812, 6.2.1	
Heat shock test:	HD 21.1/VDE 0281-1 & EN 60811/VDE 0473-811, -3-1.9.1	
Heat pressure test:	HD 21.1/VDE 0281-1 & EN 60811/VDE 0473-811, -3-1.8.1	
Cold winding test:	HD 21.1/VDE 0281-1 & EN 60811/VDE 0473-811, -1-4.8.1	
Cold elongation test:	HD 21.1/VDE 0281-1 & EN 60811/VDE 0473-811, -1-4.8.3	
Cold impact test:	HD 21.1/VDE 0281-1 & EN 60811/VDE 0473-811, -1-4.8.5	
EC RoHS directive:	This cable complies with EC directive 2002/95/EC (RoHS – <b>Restriction of (the use of certain) Hazardous Substances</b> ).	
EC low voltage directive:	This cable doesn't fall under the EC low voltage directive.	