LAPP GROUP	**DATA SHEET**	2170243
	UNITRONIC® BUS COMBI EIB-H	gültig ab : 13.10.2009

Application

Halogen free, screened installation cable based on type J-Y(ST)Y in acc. to VDE 0815 combined with power supply cores 3x1.5 mm² NYM based acc. to VDE 0250 part 204. The cable is designed for data transmission in the building management, in particular as bus cable for the European Installation Bus "EIB" (use for decentralised control of lighting, heating, air-conditioning, ventilation, energy management, blind, time management, locking systems etc.). The EIB bus cable can be laid in, on and under plaster, in pipes and cable ducts, in dry, damp and wet rooms. They may only be installed outdoors with UV-protection and in observation of the temperature range. UNITRONIC® BUS EIB cables have been tested with a test voltage of 4 kV. The cables may be laid respectively be touched without restrictions next to power cables.

Design

EIB

Conductor	Solid, bare copper wire, Ø 0.8 mm diameter
Insulation	halogen free polymer compound
Core identification	pair 1: red and black, pair 2: white and yellow
Stranding	4 insulated conductors twisted (star-quad formation)
Wrapping	plastic foil
Screening	one layer plastic-coated aluminium foil, wrap metal side inside with Ø 0.4 mm bare copper drain wire
Sheath	halogen free, flame retardant polymer compound, Ø max. 6.6 mm
Sheath colour	green, similar to RAL 6017

NYM insulated conductors

Conductor	solid, bare copper wire, with 1.5 mm²
Insulation	halogen free polymer compound
Core identification	in acc. to DIN VDE 0293-308: brown, blue, green/yellow

Combi cable

Stranding	EIB cable with NYM-conductors 3x1.5 mm² twisted
Wrapping/ Screening	plastic foil (optional), one layer plastic-coated aluminium foil, wrap metal side inside with tinned drain wire 1.5 mm²
Outer sheath	halogen free, flame retardant polymer compound, Outer Ø max. 12.7 mm
Sheath colour	green, similar to RAL 6017

Electrical properties at 20°C

EIB

Conductor resistance	max. Ω/km	73.2
Insulation resistance	min. MΩ x km	100
Mutual capacitance at 800 Hz	nom. nF/km	100
Inductance at 800 Hz	mH/km	0.65
Capacitive coupling k at 800 Hz	max. pF/100 m	300
Characteristic impedance at 100 kHz	nom. Ω	85
Characteristic impedance at 1MHz	nom. Ω	75
Attenuation at 10 kHz	nom. dB/km	3.5
Attenuation at 100 kHz	nom. dB/km	8
Operating voltage (not for power purposes)	peak value V	300
Test voltage (conductor/conductor)	V	1000
Test voltage (conductor/screen)	V	1000
Test voltage of the cable in water bath (5 min.)	V	4000

NYM insulated conductors

Conductor resistance	max. Ω/km	24.4
Test voltage (conductor/conductor)	V	1500

Mechanical and thermal properties

Minimum bending radius (fixed use)	cableØ	x 10
Permissible pulling strength	max. N	100
Permissible temperature range (fixed use)	°C	-30 to +70
Flame propagation	flame retardant acc. to IEC 60332-1-2	

Conformity

This cable confirms to RoHS directive (2002/95/EG)