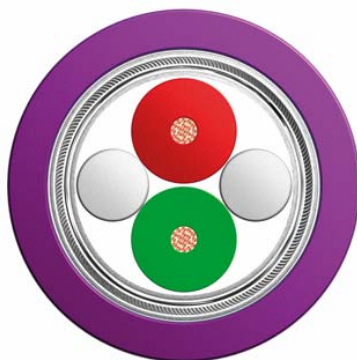




<b>DATA SHEET</b>	<b>2170331</b>
<b>UNITRONIC® BUS L2/FIP FESTOON</b>	Valid from: <b>07.07.2006</b>



## Design

### Wire

Stranded bare copper wire 19 X 0.14  
Insulation of foamed Polyethylene (PE) with skin

∅ 0.67 mm (0,026 in)  
∅ 2.56 mm (0,101 in)

### Core

2 wires, red (RD) and green (GN) twisted to a pair with fillers in the gaps  
Plastic tape, overlapped  
Alulaminated foil overlapped  
Shield braiding of tinned copper wires 0.1 mm diameter  
Coverage approx. 70%  
Plastic tape, overlapped

∅ 6.0 mm (0,236 in)

### Jacket

Polyvinylchloride (PVC) violet (VT)  
Wall thickness approx. 1.0 mm

∅ (8.0 ±0.3) mm (0,315 ±0,012 in)

Marking LAPP KABEL STUTTGART UNITRONIC® BUS L2/FIP FESTOON

1 x 2 x 0,64 \* 24AWG (SHIELDED) (UL) E224252 CMG 75°C or PLTC or AWM 20201  
600V FT4 SUN RES OIL RES I \* ROHS ART.2170331

### Electrical data at 20°C

Loop resistance		≤	133	Ohm/km
Screen resistance		≤	19	Ohm/km
Insulation resistance		≥	16000	MOhm*km
Characteristic Impedance	3 - 20 MHz		(150 ± 15)	Ohm
	31.25 - 38.4 kHz		(185 ± 18.5)	Ohm
	9.6 kHz		(270 ± 27)	Ohm
Attenuation	16 MHz	<	49	dB/km
	4 MHz	<	25	dB/km
	38.4 kHz	<	4	dB/km
	9.6 kHz	<	3	dB/km
Inductance	31.25 kHz	≈	750	µH/km



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Capacitance unbalance to ground	≤	1500	pF/km
Surface transfer impedance 20 MHz	≤	75	mOhm/m
Capacitance 1 kHz		28	nF/km
UL-Rating		600	V
Rel. velocity of propagation	≈	81	%
Test voltage (core/core/screen rms 50Hz 1min)	=	2000	V

#### Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP-A...

Screen material acc. to DIN EN 13602 Cu-ETP-A...-B

Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)

Jacket material acc. to DIN VDE 0207, compound type YM5

Flame retardant acc. to UL 1685 (CSA FT 4)

Sunlight resistant acc. to UL 1581 Sec.1200

Oil resistant acc. to UL 758 Sec. 15 ( 60°C)

UL FILE E224252

UL FILE E224262

UL FILE E63634

#### Assembling Regulation

When installed the cable have to wind off from the drum in a tangential way and to install free of torsion (attend the longitudinally line marking) into the cable roller assemblies.

The cable must be mounted tangential on a flat cable roller assemblies with a round half shell (angle between line and half shell 90 degree) whereby the radius of the half shell have to be  $\geq 70$  mm).

The strain relief of the cable roller assemblies must be fitted out with rubber clutches in order to avoid too strong crush of the conductor.

#### Application / Special feature:

Festoon Cable

Festoon Cable for following requirements

- 5 million bending cycles
- bending radius  $\geq 70$  mm
- acceleration 4 m/s<sup>2</sup>
- min. bending radius allowed: single  $\geq 30$  mm

Permissible temperature range : -40 °C (-40 °F) up to 80 °C (176 °F)

Tensile strength : < 80 N

PVC weight with Phthalate : 33 kg/km

PVC weight without Phthalate : 0 kg/km

Weight approx. : 64 kg/km (42,9 lb/1000ft)

02YS(ST)CY 1X2X0.65/2.56 LI VI FR

1000 m (3281 ft) on non-returnable reel