



<b>DATA SHEET</b>	<b>2170335</b>
<b>UNITRONIC® BUS PA FC (BK)</b> <b>UL/CSA (CMG) 1x2xAWG18/1</b>	Valid from: 22.08.2005



### Cable design

#### Wire

Bare copper wire	∅ 1.05 mm ( 0,041 in)
Insulation of foamed Polyethylene (PE) with skin	∅ 2.55 mm ( 0,100 in)

#### Core

2 wires, RD and GN twisted to a pair	
Plastic tape, overlapped	
Inner jacket: Polyvinylchloride (PVC)	∅ 5.4 mm (0,213 in)
Alulaminated foil overlapped, applied longitudinally	
Shield braiding of tinned copper wires 0.15 mm diameter	
Coverage approx. 90%	∅ 6.1 mm ( 0,240 in)

#### Jacket

Polyvinylchloride (PVC) black (BK)	
Wall thickness approx. 0.9 mm	∅ (8.0 ±0.4) mm (0.315 ±0.016 in)

Marking: LAPP KABEL STUTTGART **UNITRONIC® BUS PA FC (BK) UL/CSA (CMG)**  
1 x 2 x 1.0 \* 18AWG (SHIELDED) (UL) E224252 CMG 75°C or PLTC or  
AWM20201 600V FT4 SUN RES OIL RES I \* ROHS ART. 2170335

#### Electrical data at 20°C

Conductor resistance	≤	22	Ohm/km
Insulation resistance	≥	10	MOhm*km
Capacitance (1 kHz core/core)	≈	50	nF/km
Capacitance (1 kHz core/screen)	≈	92	nF/km
Operating voltage (peak)	≤	100	V
UL-Rating		600	V
Test voltage (DC 3 sec)	=	3600	V
Characteristic Impedance (31.25 kHz)		(100 ±20)	Ohm

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Attenuation (39 kHz)	≤	3	dB/km
Capacitance unbalanced	≤	2	nF/km
Inductance (31.25 kHz)		650	μH/km
Surface transfer impedance (20 MHz)	≤	5	mOhm/m
rel. velocity of propagation	≈	81	%

#### 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

Insulation material acc. to DIN EN 50290-2-23 (VDE 0819) table 2 column 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 1581 Sec. 480 (60°)

UL FILE E224252

UL FILE E224262

UL FILE E63634

#### Application / Special feature:

The jacket is UV resistant

Flame test acc. to IEC 60332-1

"Fast Connect" cable design

Permissible temperature range : -20°C (-68°F) up to +80 °C (176 °F)

Min. bending radius allowed : repeated 10 X ø , single 5 X ø

Tensile strength : ≤ 150 N

PVC weight with Phthalate : 51.8 kg/km

PVC weight without Phthalate : 0.0 kg/km

Weight approx. : 103 kKg/km

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