

# SOMMER CABLE

## NETWORK, DMX & Power Combi-Cable Twisted Pair (S/FTP) + DMX + POWER

Hybrid cable: 1 x Lan CAT.7 (4x2x26/7AWG) + 3 x Power cores 2,5mm<sup>2</sup>

### Application:

- Control of DMX lighting consoles
- Mobile applications
- Analogue + digital audio multipair with LAN and power supply
- Permanent installation

### PRODUCT ADVANTAGES:

- LAN signal transmission incl. mains supply in one cable
- LAN cable also usable as an additional control line
- LAN line suitable for audio transmission

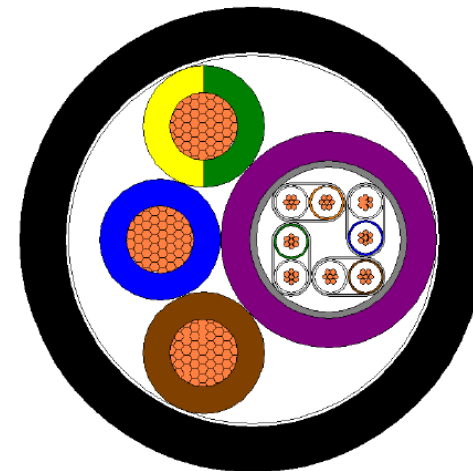
### Construction:

#### Power line with cross section 2,50 mm<sup>2</sup> (3 cores)

Inner conductor      stranded bare copper wire 48x0,25 mm - nom. cross section 2,50 mm<sup>2</sup>  
Insulation            PVC - nom.  $\varnothing$  3,60 mm  
Insulation colour    brown, blue, green-yellow

#### LAN data unit (1 cable) 4x2x26/7AWG

Inner conductor      stranded bare copper wire 26/7AWG (7 0,16 mm ) - nom. cross section 0,14 mm<sup>2</sup>  
Insulation            foam-skin polyethylene - max 1,05 mm  $\varnothing$  (RJ-45 plug connector compatible)  
Insulation colours   white/blue, blue, white/orange, orange, white/green, green, white/brown, brown  
Core assembly       the cores will be stranded to a pair - (1) white/blue+blue, (2) white/orange+orange, (3) white/green+green, (4) white/brown+brown  
Pair shield            each pair will be wrapped with aluminium/polyester tape (outside aluminium surface)  
Pair assembly        the four shielded pair will be stranded together  
Global shield        tinned copper wire braid with 65% ( $\pm$  5%) coverage  
Outer jacket         (light pressure) Flame retardant PVC – Shore A79 – violet colour RAL4001 - outer  $\varnothing$  : 6,3 ( 0,15) mm - nom. thickness: 0,65 mm  
Identification unit   Ink-jet with black colour – "10Gbit / CAT.7"



**Artikelnummer: 500-0151-1**

**SC-MONOCAT 110C** CAT.7 + 3x2,5 sw,PVC

EAN-Code: 4049371050975

Art. No. 500-0151-1

Checked: FV

Size: A4

Date: 01.06.2015

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Material: PVC

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## Construction:

### Assembly

Element assembly LAN unit, power insulation and fillers are stranded together  
Separation Non woven tape  
Outer jacket soft PVC compound - outer  $\varnothing$  13,8 mm - black colour

Printing (wheel type) acc. to the Customer specification

### Mechanical characteristics

Min bending radius 15 x outer cable  $\varnothing$  [mm]

### Fire performance

Flame retardancy according to EN 50265-2-1 and IEC 60332-1 Standards  
Fire load 0,85 kWh/m

### Other characteristics

Operating temperature  $-20^{\circ}\text{C}/+75^{\circ}\text{C}$   
Installation temperature  $0^{\circ}\text{C}/+50^{\circ}\text{C}$   
Max operating voltage (LAN) 125 V - not for power purposes  
Max operating voltage (power cable) 250 V  
Approximate weight 260 kg/km

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## Electrical and transmission properties @ 20°C (LAN unit)

Max DC conductor resistance	143,0 /km
Capacitance @ 800	Hz 44 pF/m
Max capacitance unbalance	1600 pF/km
Propagation velocity @ 100 MHz	approx. 77 %
Propagation delay @ 100 MHz	nom 490 nsec/100m (max 520 nsec/100m)
Delay skew (4 600 MHz)	nom 15 nsec/100m (max 25 nsec/100m)
Characteristic impedance (1/250 MHz)	100Ω (±15%)
Characteristic impedance (250/600 MHz)	100Ω (± 20%)
Dielectric strength (cond./cond. - cond./shield)	0,7 kVac 1 min
Min insulation resistance	5,0 GΩ x km
Coupling attenuation	88 dB @100MHz - 80 dB @250MHz - 72 dB @600MHz - 70 dB @750MHz
Screening attenuation (1/750 MHz)	80 dB
Transfer impedance	10,5 mΩ/m @100kHz - 6,0 mΩ /m @1MHz - 2,0 mΩ /m @10MHz - 1,5 mΩ/m @30MHz - 5,0 mΩ /m @100MHz

**Standard reference** EN 50288-1; EN 50288-4-2; EN 50173; IEC 61156-6; ISO/IEC 11801

## Other properties

Max operating voltage	125 V (not for power purposes)
Max pull strength	80 N
Min bend radius (fixed)	8 x outer ∅ [mm]
Min bend radius (sporadic movements)	12 x outer ∅ [mm]

## Electrical properties @ 20°C (power unit)

Max, DC conductor resistance	7,98 Ω /km
Test voltage (cond./cond.)	2,5 kVac / 5 min

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FREQUENCY [MHz]	ATTENUATION [dB/100m]		PS NEXT [dB]		PS ELFEXT [dB/100m]		PS ACR [dB/100m]		RETURN LOSS [dB]	
	MAX - STD [dB/100m]	typical [dB/100m]	MIN - STD [dB]	typical [dB]	MIN - STD [dB/100m]	typical [dB/100m]	MIN [dB/100m]	typical [dB/100m]	MIN - STD [dB]	typical [dB]
1		3,2		> 95		93	72,0	> 90		27
4	5,6	5,6	75,0	> 95	75,0	93	69,4	> 89	23,0	28
10	8,8	8,4	75,0	95	71,0	92	66,2	86,6	25,0	30
16	11,1	10,4	75,0	95	66,9	85	63,9	84,6		
20	12,4	11,4	75,0	92	65,0	79	62,6	80,6		
31,25	15,6	14,2	75,0	92	61,1	71	59,4	77,8	23,3	28
62,5	22,3	20,5	72,5	90	55,1	58	50,1	69,5	20,7	27
100	28,5	26,2	69,4	90	51,0	55	40,9	63,8	19,0	25
155,52	36,0	33,2	66,5	88	47,2	51	30,5	54,8	17,3	25
200	41,2	38,0	64,9	85	45,0	49	23,7	47,0	16,4	24
250	46,5	42,5	63,4	84	43,0	47	17,0	41,5	15,6	23
350	55,8	51,3	61,2	82	40,1	44	5,5	30,7	15,6	22
500	67,9	62,2	58,9	75	37,0	41	---	12,8	15,6	21
600	75,1	67,8	57,7	73	35,4	38	---	5,2	15,6	20
750	---	77,2	--	70	---	33	---	-7,2	15,6	19

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