


**SAMCON SKDP03-T**

# SAMCON® SKDP03-T

The cable **SKDP03-T** is a system cable for connecting digital camera systems with additional power requirement and was particularly developed to be used in hazardous areas. It meets the requirements for cables and wires according to DIN EN 60079-14. When using the applicable cable gland, it is possible to insert the cable directly into flameproof enclosures.

The **SKDP03-T** is a high speed cable for Industrial Ethernet for fixed installations in dry, wet, or damp rooms. The cable meets the transmission characteristics for Category 6 of IEC 61156-5 Ed. 2 and it has an excellent resistance against mechanical stress, oils as well as greases and is halogenfree.

## Data.

### Application areas:

IEEE 802.3 : Ethernet 10Base-T ; Fast Ethernet 100Base-T ; Gigabit Ethernet 1000Base-T ; 10GBase-T  
 IEEE 802.5 : 16 MB; ISDN ; FDDI ; ATM ; Cable sharing  
 IEEE 802.3at : PoE suitable



### Standards:

EN 60079-14:2014 „Electrical installations design, selection and erection“ (q.v. declaration of conformity)  
 IEC 60079-14:2013 „Electrical installations design, selection and erection“ (q.v. declaration of conformity)  
 EN 50288-10-1; IEC 61156-5 ; EN 50173 ; ISO/IEC 11801 2. edition  
 EN 60332-1-2 ; IEC 60754-2; UL AWM 21586

### Hazardous areas characteristics:

The cable meets the requirements for cables in hazardous areas to avoid inter-zone gas-transfer in accordance to IEC/ EN 60079-14 Appendix E.

### Chemical characteristics:

RoHS 2011/65/EU ; IEC 60811-2-1 ( IRM 902, 4h at 70°C ); REACH compliant  
 The cable is sunlight resistant in accordance with UL 2556 Sec. 4.2.8.5 (720h).  
 The cable is flame retardant in accordance with IEC 60332-1-2.  
 The cable is oil resistant in accordance with IEC 60811-404 (7x24h at 90°C).  
 The cable is mud resistant in accordance with NEK 606.

### Labeling:

WWW.SAMCON.EU SKDP03-T / Cat.6 / 4x2xAWG23/1 GN J/W 3G1.5/xxxxx m

### Design:

Outer jacket: PUR FHF  
 Color: yellow green, RAL 6018  
 Diameter: 12.4 ± 0.3 mm



### Conductor design (POWER):

Conductor: Stranded co 30 x 0,25 bare  
 Insulation: Halogen free compound  
 Diameter: 2.20 ± 0.05 mm  
 Color Code: BK-BU-GN/YE



### Conductor design (CAT):

Conductor: AWG 23/1, blank  
 Insulation: SFS-PE foamed  
 Diameter: 1.43 ± 0.02 mm  
 Color code: IEC 708-1  
 Shielding pairs: Plastic laminated aluminium foil  
 Shielding: Copper, tinned wire 0.10, optical cov. app. 85%



### Mechanical characteristics:

Temperature range:  
 Fixed installed: -60°C to +80°C  
 During installation: -30°C to +80°C  
 Bending radius:  
 8 x diameter during installation  
 4 x diameter after installation  
 Weight: 210 kg/km



### Electrical characteristics (CAT):

Loop resistance: 140 Ohm / km according to VDE 0812  
 Insulation resistance: 5 GOhm x km bei +20°C

Operating capacity: 50 nF / km  
 Characteristic impedance at 100MHz: 100 Ohm ± 5 Ohm  
 Operating voltage: 100 V  
 Test voltage: 1000 V / AC  
 Signal run time: 5.3 ns / m  
 Transfer impedance: ≤ 100 mOhm/m at 10MHz

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**Typical transmission performance CAT):**

f in MHz	Attenuation (dB/100m) nom.	NEXT (dB) nom.	ELFEXT (dB/10m) nom.	RL (dB) nom.
1	2.1	75	66	23.1
4	3.8	66	58	24.5
10	6.0	60.3	50	25
16	7.6	57.2	45.9	25
20	8.5	55.8	44	25
31,25	10.8	52.9	40.1	23.6
62,5	15.5	48.4	34.1	21.5
100	19.9	45.3	30	20.1
155	25.3	42.4	26.2	18.8
200	29.1	40.8	24	18
250	33.0	39.3	22	17.3
500	42.1	70	62	23

**Sample measurement report 107 meter EN50173 PL2 Ea:**

