



SAMCON SKD05-HT
 Sectional view

SAMCON® SKD05-HT

The cable **SKD05-HT** is a system cable for connecting digital camera systems 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. It is **high-temperature resistant**.

The **SKD05-HT** 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 even at -50°C. Gigabit Ethernet applications could safely be transferred with a transmission distance of up to **60 meters**. The cable has an excellent resistance against mechanical stress, oils as well as greases and is flame retardant.

Data.

Application areas:

IEEE 802.3 : Ethernet 10Base-T ; Fast Ethernet 100Base-T ; Gigabit Ethernet 1000Base-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



Environmental characteristics:

The cable is suitable for high temperature applications: max. Temp. ≤ 150°C.



Chemical characteristics:

RoHS 2011/65/EU ; IEC 60811-2-1 (IRM 902, 4h at 70°C) ;
 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 SKD05-HT / Cat.6 / 4x2xAWG26/7 - <charge number> - <xxxx> m

Design:

Outer jacket:	FEP
Color:	green
Diameter:	6.6 ± 0.2 mm

Conductor design:

Conductor:	AWG 26/7, blank
Insulation:	FEP
Diameter:	1.04 ± 0.02 mm
Color code:	IEC 708-1
Shielding:	Copper, tinned wire 0.10, optical cov. app. 70%



Mechanical characteristics:

Temperature range:	
Fixed installed:	-50°C bis +150°C
During installation:	-50°C bis +150°C
Bending radius:	8 x diameter during installation 4 x diameter after installation
Maximum tractive force:	1500 N
Weight:	62 kg/km
Pressure resistance at 20°C:	20 bar



Electrical characteristics:

Loop resistance:	Max. 290 Ohm / km according to VDE 0812
Insulation resistance:	Min. 500 MOhm x km at +20°C
Characteristic impedance at 100MHz:	100 Ohm ± 5 Ohm
Test voltage:	700 V / AC
Signal term:	≤ 5.13 ns/m



Typical transmission performance:

f in MHz	Attenuation (dB/100m) nom.	NEXT (dB) nom.	ELFEXT (dB/10m) nom.	RL (dB) nom.
1	3.1	66.0	66.0	
4	5.8	65.3	58.0	23.1
10	9.0	59.3	50.0	25.0
16	11.4	56.2	45.9	25.0
20	12.8	54.8	44.0	25.0
31,25	16.1	51.9	40.1	23.6
62,5	23.2	47.4	34.1	21.5
100	29.9	44.3	30.0	20.1
155	38.0	41.4	26.2	18.8
200	43.7	39.8	24.0	18.0
250	49.5	38.3	22.0	17.3



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Sample measurement report 107 meter EN50173 PL2 Ea:

