

# Digital Camera System Interconnection Cable

<Ethernet + Power> Armoured PUR

## Cable Design

### Ethernet

Conductor	Solid bare copper wire 23/1 awg
Insulation	SFS-PE foamed $\text{\O} 1.43 \pm 0,02 \text{ mm}$
Pair	Each 2 cores stranded to pairs (colour code IEC 708-1)
Pair Shield	Plastic laminated aluminium foil
Stranding	4 shielded pairs cabled together
Braid Shield	Tinned copper wire braid. $85 \pm 5 \%$ optical coverage

### Power

Conductor	Stranded bare copper wire (30/0,25mm)
Insulation	Halogen free compound $\text{\O} 2.20 \pm 0.05 \text{ mm}$
No. of Cores	3 (Black, Blue, Green/Yellow)

### Lay up

Centre	Ethernet + Power cores cabled together
Filler	Extruded filling compound
Inner Jacket	PUR FHF
Armour	GSWB - Galvanised Syteel Wire Braid)

### Outer Jacket

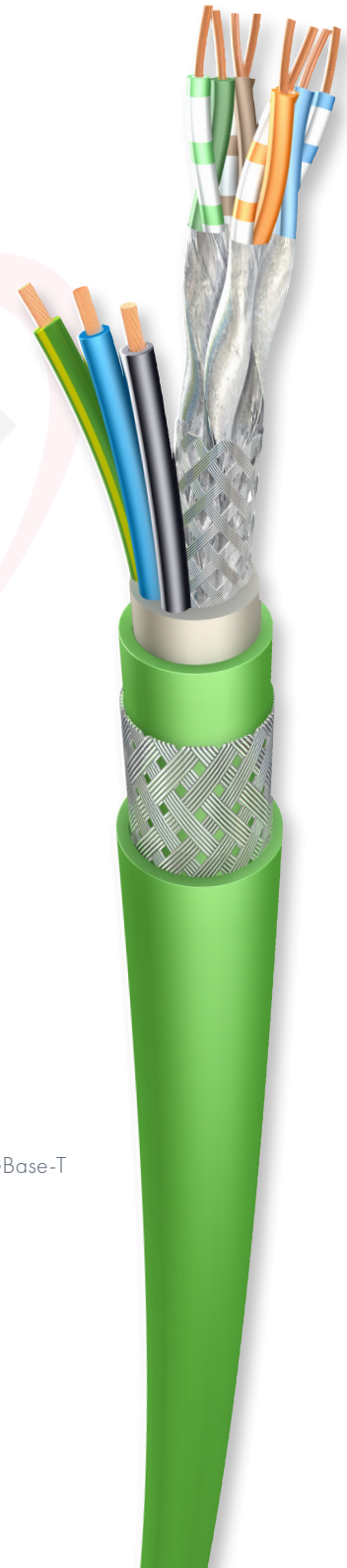
Material	PUR FHF
Colour	yellow green, RAL 6018
Diameter	$\text{\O} 15.5 \pm 0.6 \text{ mm}$

### 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 / PoE+ suitable

### Standards

EN 60079-14:2014 „Electrical installations design  
 IEC 60079-14:2013 „Electrical installations design,  
 EN 50288-10-1; IEC 61156-5 ; EN 50173 ; EN 50174; ISO/IEC 11801 2. edition  
 EN 60332-1-2 ; IEC 60754-2; UL AWM 21586



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## Mechanical Characteristics

Temperature range - Fixed installed	-60°C to +80°C
Temperature range - During installation	-30°C to +80°C
Bending radius	15 x diameter during installation / 10 x diameter after installation
Weight	316 kg/km

## Electrical Data @ 20°C

Loop resistance	140 Ohm / km according to VDE 0812
Insulation resistance	5 GOhm x km bei +20°C
Operating capacity	Nom. 50 nF / km
Characteristic impedance at 100MHz	100 Ohm ± 5 Ohm
Operating voltage	100 V
Test voltage	1000 V / AC
Signal term	5,3 ns / m
Transfer impedance	≤ 100 mOhm/m at 10MHz

Frequency (MHz)	Attenuation (dB/100m) nom.	NEXT (dB) nom.	PSNext (dB) nom.	ELFEXT (dB/10m) nom.	PSELFEXT (dB) nom.	RL (dB) nom.
1	2,1	75,3	72,3	68,0	65,0	20
4	3,8	66,3	63,3	56,0	53,0	-
10	5,9	60,3	57,3	48,0	45,0	25
16	7,5	57,2	54,2	43,9	40,9	25
20	8,4	55,8	52,8	42,0	39,0	25
31,25	10,5	52,9	49,9	38,1	35,1	23,6
62,5	15,0	48,4	45,4	32,1	29,1	21,5
100	19,1	45,3	42,3	28,0	25,0	20,1
155	24,1	42,4	39,4	24,2	21,2	18,8
200	27,6	40,8	37,8	22,0	19,0	-
300	34,3	38,1	35,1	18,5	15,5	17,3
500	45,3	34,8	31,8	14,0	11,0	17,3