

MegaLine® F10-110 S/F

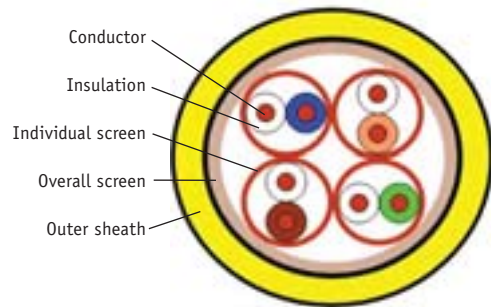
S₃P₄A₄C₄E₅

Type: KS-02YSCH 4x2xAWG 23/1 PIMF
 Type: KS-02YSCH 2x(4x2xAWG 23/1 PIMF)



Construction:

Conductor: bare copper wire, AWG 23/1
 Insulation: cellular-PE, core-Ø: max. 1.40 mm
 Twisting element: Pair
 Twisting: 4 pairs
 Overall screen: tinned copper wire braid
 Outer sheath: halogen-free, flame retardend compound



Printing outer sheath:

KERPEN MegaLine® F10-110 S/F 4P H SPACE CODE 34445
 "VDE approval mark" "Production lot code"
 "Meter marking"

Colour code: wh/bu, wh/or, wh/gn, wh/bn
 Colour outer sheath: yellow, RAL 1021

Fire behaviour:

Flame retardance: acc. to IEC 60332-3-24
 Halogen acid gas emission: acc. to IEC 60754-2
 Smoke density: acc. to IEC 61034
 Calorific value (MJ/m): 0.60/1.2 (approx.)

S	1	2	3	4	5
	IEC 60332-2-2	IEC-60332-1-2	IEC-60332-3-24	EFP Grade 1	EFP Grade 2

Security (Fire behaviour)

Performance:

Better than category 7 acc. EN 50288 and IEC 61156
 excellent NEXT, excellent screening characteristics
 (individual and overall screen), low SKEW
 Bandwidth 1,100 MHz

P	1	2	3	4	5
	> class E > 250 MHz	> class E _A > 500 MHz	> class F > 600 MHz	> class F _A > 1,000 MHz	> class "G" > 1,200 MHz

Performance (Cabling class, bandwidth)

Applications:

Installation cable for generic cabling systems acc. ISO/IEC 11801 and EN 50173 (2. edition). Ideal for all applications of classes D up to F_A Multimedia (Video, Data, Voice) >10 GbE acc. IEEE 802.3 an (draft), Cable sharing, VoIP, PoE

A	1	2	3	4	5
	> 100 MbE	> 1 GbE	up to 10 GbE	> 10 GbE	> 10 GbE TV

Application (Ethernet,TV)

Mechanical characteristics:

Bending radius:
 during installation: 8 x overall diameter (min.)
 after installation: 4 x overall diameter (min.)
 Tensile strength: 110/220 (max.)
 Crush (N/100 mm): 1,000
 Impact (number of shocks): 10

C	1	2	3	4	5
	AWG 27	AWG 26/25	AWG 24	AWG 23	AWG 22

Construction (Conductor size, Tensile strength)

Electromagnetic behaviour:

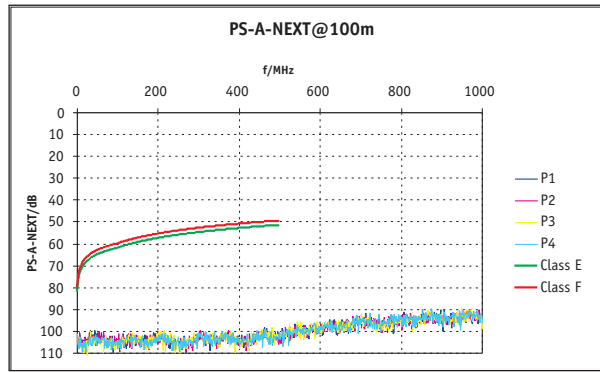
Transfer impedance at 10 MHz (mOhm/m):
 5 (nominal value)
 Screening attenuation up to 1,000 MHz (dB):
 70 (nominal value)
 Coupling attenuation up to 1,000 MHz (dB):
 85 (nominal value)

E	1	2	3	4	5
	> 40 dB	> 50 dB	> 60 dB	> 70 dB	> 80 dB

EMC (Coupling attenuation)

Electrical characteristics at 20°C:

- DC resistance (Ohm/km): 75 (max.)
- Insulation resistance (Gohm x km): 5 (min.)
- Mutual capacitance (pF/m): 42 (approx.)
- Transfer capacitance (e) (pF/km): 1,500 (approx.)
- Signal velocity (c): 0.8 (approx.)
- Propagation delay (ns/100m): 420 (approx.)
- Skew at 100 MHz (ns/100m): 5 (approx.)
- Characteristic impedance at 100 MHz (Ohm): 100 ± 5
- Test voltage Ueff (V): 1,000
- Operating voltage Ueff (V): 125 (max.)



Frequency MHz	Attenuation dB/100m		NEXT dB		PS-NEXT dB		ACR dB@100m		PS-ACR dB@100m		EL-FEXT dB@100m		PS-ELFEXT dB@100m		RL dB	
	typ.	Cat.7 max.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*
1	1.9	2	105	80	102	77	104	78	101	75	98	80	95	77	26.6	23
10	4.8	5.7	105	80	102	77	101	74	98	71	103	74	100	71	35.3	25
100	16.3	18.5	105	72	102	69	89	54	86	51	89	54	86	51	39.6	20.1
200	24.3	26.8	105	68	102	65	81	41	78	38	82	48	79	45	36	18
250	27.5	30.2	105	66	102	63	78	36	75	33	79	46	76	43	34	17.3
500	37.9	44.1	100	62	97	59	62	18	59	15	67	40	64	37	29	17.3
600	42.4	48.9	95	61	92	58	53	12	50	9	60	38	57	35	25.4	17.3
700	47.2	-	95	-	92	-	48	-	45	-	57	-	54	-	24.6	-
800	50.3	-	93	-	90	-	43	-	40	-	53	-	50	-	23.5	-
900	54.6	-	88	-	85	-	33	-	30	-	49	-	46	-	22.6	-
1,000	58	-	85	-	82	-	27	-	24	-	44	-	41	-	21.5	-
1,100	60.6	-	83	-	80	-	22	-	19	-	39	-	36	-	20.6	-

* EN 50288-4-1/IEC 61156-5

Chemical characteristics:

Free of hazardous substances acc. to RoHS 2002/95/EG

Certificates and Approvals:

Quality mark with production control: <VDE>

Link performance: KERPEN ELine™ systems and further commercial cabling systems

Inspection certificate: acc. to DIN 55350-18-4.2.1 respectively EN 10204

In agreement to LVD (73/23/EEC):

Thermal characteristics:

Temperature range for fixed installation:

-20°C up to + 60°C

Temperature range for mobile operation:

0°C up to + 50°C

Article number	Size	Overall diameter mm	Weight kg/km	Copper number kg/km	Colour sheat
7KS70008	4P	7.5 (approx.)	67 (approx.)	37	yellow, RAL 1021
7KS70009	2x4P	7.5 x 15.2 (approx.)	136 (approx.)	74	yellow, RAL 1021

Package: Drum 1,000 m