

MegaLine® F10-120 S/F

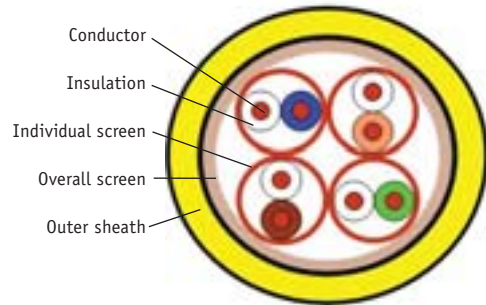
S₃P₄A₄C₅E₅

Type: KS-02YSCH 4x2xAWG 22/1 PIMF
 Type: KS-02YSCH 2x (4x2xAWG 22/1 PIMF)



Construction:

Conductor: bare copper wire, AWG 22/1
 Insulation: cellular-PE, core-Ø: nominal value 1.6 mm
 Twisting element: Pair
 Individual screen: aluminium bonded polyester tape
 Twisting: 4 pairs
 Overall screen: tinned copper wire braid
 Outer sheath: halogen-free, flame retardend compound



Printing outer sheath:

KERPEN MegaLine® F10-120 S/F 4P H SPACE CODE 34455
 "VDE approval markk" "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): 0.7 (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, low attenuation, excellent screening characteristics (individual and overall screen), low SKEW
 Bandwidth 1,200 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: 130 (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:

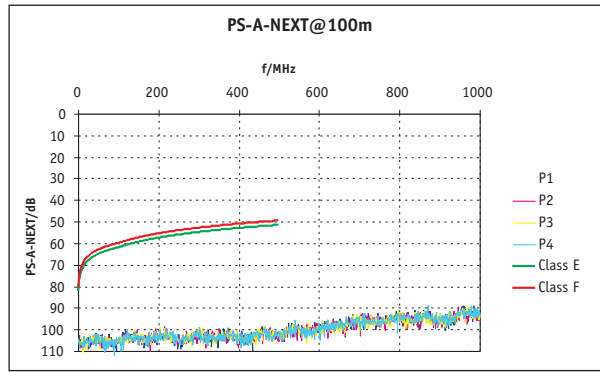
Transfer impedance at 10 MHz (mOhm/m): 5 (nominal value)
 Screening attenuation up to 1,000 MHz (dB): 70 (nominal value)
 Coupling attenuation up to 1,000 MHz (dB): 85 (nominal value)

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): 57.1 (max.)
- Insulation resistance (Gohm x km): 5 (min.)
- Mutual capacitance (pF/m): 40 (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	1.7	2	105	80	102	77	104	78	101	75	105	80	102	77	27.1	23
10	4.5	5.7	105	80	102	77	101	74	98	71	108	74	105	71	35.2	25
100	15.4	18.5	105	72	102	69	90	54	87	51	93	54	90	51	38.9	20.1
200	22.9	26.8	105	68	102	65	83	41	80	38	85	48	82	45	36.6	18
250	26	30.2	105	66	102	63	79	36	76	33	82	46	79	43	35.3	17.3
500	35.9	44.1	100	62	97	59	64	18	61	15	70	40	67	37	29.4	17.3
600	40.4	48.9	95	61	92	58	55	12	52	9	63	38	60	35	26.6	17.3
700	44.6	-	95	-	92	-	50	-	47	-	60	-	57	-	25.8	-
800	47.7	-	93	-	90	-	45	-	42	-	57	-	54	-	25	-
900	51.6	-	88	-	85	-	36	-	33	-	53	-	50	-	23.6	-
1,000	54.8	-	85	-	82	-	30	-	27	-	48	-	45	-	22.3	-
1,100	56.9	-	83	-	80	-	26	-	23	-	44	-	41	-	21.4	-
1,200	59	-	78	-	75	-	19	-	16	-	40	-	37	-	20.5	-

* 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
7KS70001	4P	8.6 (approx.)	80 (approx.)	48	yellow, RAL 1021
7KS70002	2x4P	8.6 x 17.5 (approx.)	162 (approx.)	96	yellow, RAL 1021

Package: Drum 1,000 m