

MegaLine® F6-90 S/F

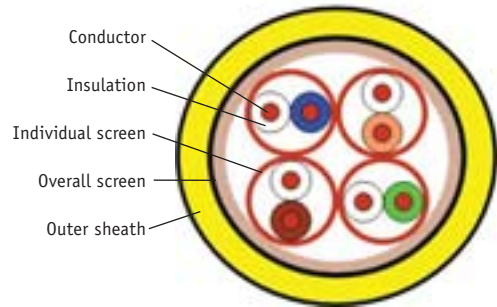
S₃P₃A₄C₄E₅

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
- 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® F6-90 S/F 4P H SPACE CODE 33445
 "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): 0.6/1.2 (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 900 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 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/100mm): 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:

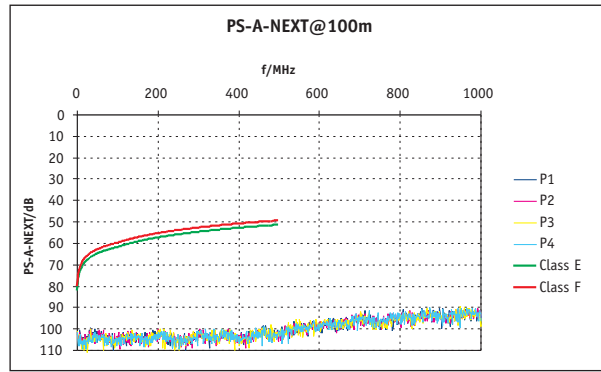
Transfer impedance at 10 MHz (mOhm/m):
 5 (nominal value)
 Screening attenuation up to 1,000 MHz (dB):
 70 (nominal value)
 Coupling attenuation up to 1,000 MHz (dB):
 85 (nominal value)

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	102	80	99	77	101	78	98	75	109	80	106	77	25.4	23
10	4.8	5.7	102	80	99	77	98	74	95	71	108	74	105	71	31.1	25
100	16.4	18.5	102	72	99	69	86	54	83	51	93	54	90	51	33.2	20.1
200	24.5	26.8	102	68	99	65	78	41	75	38	85	48	82	45	33.2	18
250	27.8	30.2	102	66	99	63	75	36	72	33	82	46	79	43	33.4	17.3
450	36.1	41.6	97	63	94	60	61	21	58	18	72	41	69	38	31.4	17.3
500	38.2	44.1	97	62	94	59	59	18	56	15	68	40	65	37	30.5	17.3
600	42.9	48.9	92	61	89	58	49	12	46	9	62	38	59	35	27.6	17.3
700	47.7	-	92	-	89	-	44	-	41	-	59	-	56	-	26.2	-
800	50.8	-	90	-	87	-	39	-	36	-	56	-	53	-	23.9	-
900	55.1	-	85	-	82	-	30	-	27	-	52	-	49	-	21.7	-

* 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
7KS70010	4P	7.5 (approx.)	67 (approx.)	37	yellow, RAL 1021
7KS70011	2x4P	7.5 x 15.2 (approx.)	136 (approx.)	74	yellow, RAL 1021

Package: Drum 1,000 m