

MegaLine® F6-90 S/F flex

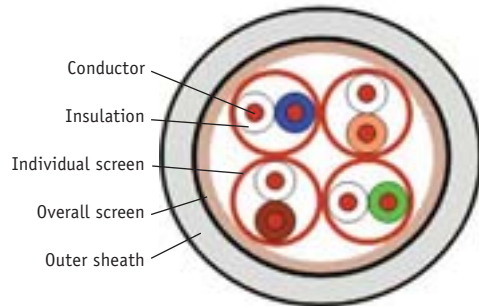
S₂P₃A₄C₁E₅

Type: KS-02YSCH 4x2xAWG 27/7 PIMF



Construction:

- Conductor: bare stranded copper wire, AWG 27/7
- Insulation: cellular-PE, core-Ø: max. 1.0 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 flex 4P H
 SPACE CODE 23415 "Number of registration VDE 8080"
 "Production lot code" "Meter marking"

Colour code: wh/bu, wh/or, wh/gn, wh/bn
 Colour outer sheath: grey, RAL 7035;
 yellow, RAL 1021; green, RAL 6018;
 blue, RAL 5015; red, RAL 3000

Fire behaviour:

Flame retardance: acc. to IEC 60332-1-2
 Halogen acid gas emission: acc. to IEC 60754-2
 Smoke density: acc. to IEC 61034
 Calorific value (MJ/m): 0.33 (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:

Connecting cable and patch cord 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 operation: min. 5 x overall diameter
 Tensile strength: 40 (max.)

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):
 60 (nominal value)
 Coupling attenuation up to 1,000 MHz (dB):
 80 (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): 170 (max.)
- Insulation resistance (Gohm x km): 5 (min.)
- Mutual capacitance (pF/m): 44 (approx.)
- Signal velocity (c): 0.78 (approx.)
- Propagation delay (ns/100m): 430 (approx.)
- Skew at 100 MHz (ns/100m): 2.5 (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/10m		NEXT dB		PS-NEXT dB		ACR dB@10m		PS-ACR dB@10m		EL-FEXT dB@10m		PS-ELFEXT dB@10m		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	0.26	0.29	95	80	92	77	95	80	92	77	92	80	89	80	21.8	-
10	0.83	0.85	94	80	91	77	94	79	91	77	84	74	81	71	29.7	25
100	2.74	2.78	90	72	87	69	88	70	85	69	70	54	67	51	35	20.1
200	3.9	4.01	87	68	84	65	83	64	80	65	60	48	57	45	33	18
250	4.39	4.53	85	66	82	63	81	62	78	63	56	46	53	43	31.6	17.3
500	6.21	6.62	78	62	75	59	72	55	69	59	52	40	49	37	28.8	17.3
600	6.91	7.33	76	61	73	58	69	53	66	58	48	38	45	35	27.1	17.3
700	7.48	-	75	-	72	-	67	-	64	-	34	-	31	-	26.4	-
800	8.06	-	72	-	69	-	64	-	61	-	34	-	31	-	24.7	-
900	8.62	-	70	-	67	-	62	-	59	-	11	-	8	-	24.4	-

* EN 50288-4-2/IEC 61156-6

Chemical characteristics:

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

Certificates and Approvals:

- Quality mark with production control:
- Number of registration 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
7KS70014	4P	5.7 (approx.)	34 (approx.)	17	grey RAL 7035
7KS70015	4P	5.7 (approx.)	34 (approx.)	17	yellow, RAL 1021
7KS70016	4P	5.7 (approx.)	34 (approx.)	17	green, RAL 6018
7KS70017	4P	5.7 (approx.)	34 (approx.)	17	blue, RAL 5015
7KS70018	4P	5.7 (approx.)	34 (approx.)	17	red, RAL 3000

Package: Drum 1,000 m