

# MegaLine® G12-150 S/F

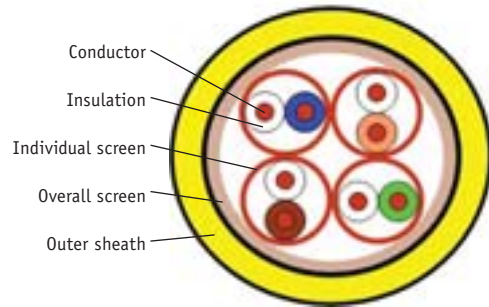
## S<sub>3</sub>P<sub>5</sub>A<sub>5</sub>C<sub>5</sub>E<sub>5</sub>

Type: KS-02YSCH 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® G12-150 S/F 4P H
- SPACE CODE 35555
- "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): 0.74 (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 ("8") acc. EN 50288 and IEC 61156 excellent NEXT, very low attenuation, excellent screening characteristics (individual and overall screen), low SKEW
- Bandwidth 1,500 MHz

P	1	2	3	4	5
	> class E > 250 MHz	> class E <sub>A</sub> > 500 MHz	> class F > 600 MHz	> class F <sub>A</sub> > 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) and for residential cabling and SOHO acc. ISO/IEC 15018 and EN 50173-3 (draft). Ideal for all applications of classes D up to F<sub>A</sub> Multimedia (TV, 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/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)				

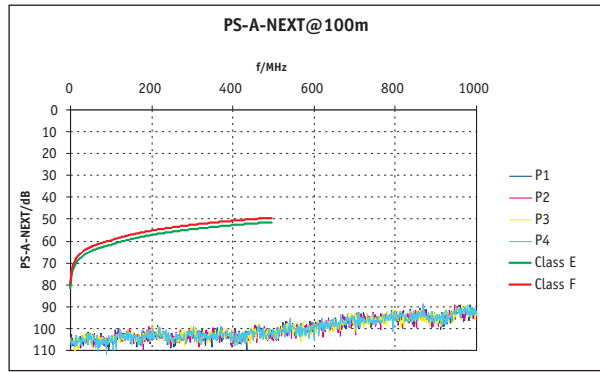
### Electromagnetic behaviour:

- Transfer impedance at 10 MHz (mOhm/m): 2 (nominal value)
- Screening attenuation up to 1,000 MHz (dB): 80 (nominal value)
- Coupling attenuation up to 1,000 MHz (dB): 90 (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): 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): 3 (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	1.6	2	110	80	107	77	108	78	105	75	109	80	106	77	26.1	23
10	4.2	5.7	110	80	107	77	106	74	103	71	109	74	106	71	32.3	25
100	14.4	18.5	110	72	107	69	96	54	93	51	93	54	90	51	36.2	20.1
200	21.5	26.8	110	68	107	65	88	41	85	38	86	48	83	45	35.5	18
250	24.5	30.2	105	66	102	63	81	36	78	33	83	46	80	43	34.8	17.3
500	34	44.1	105	62	102	59	71	18	68	15	70	40	67	37	31.8	17.3
600	37.7	48.9	100	61	97	58	62	12	59	9	64	38	61	35	28.5	17.3
800	44.5	-	95	-	92	-	50	-	47	-	58	-	55	-	25.3	-
900	48.1	-	95	-	92	-	47	-	44	-	54	-	51	-	23.8	-
1,000	49	-	92	-	89	-	43	-	40	-	49	-	46	-	22.2	-
1,200	54.9	-	88	-	85	-	34	-	31	-	40	-	37	-	20.2	-
1,300	57	-	81	-	78	-	24	-	21	-	35	-	32	-	18.3	-
1,400	58.1	-	74	-	71	-	16	-	13	-	30	-	27	-	16.3	-
1,500	62	-	73	-	70	-	11	-	8	-	25	-	22	-	12.3	-

\* 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): **CE**

**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 sheath
7KS80001	4P	8.6 (approx.)	80 (approx.)	48	yellow, RAL 1021

Package: Drum 1,000 m