



# G12-150 S/F

## MegaLine® Category 7<sub>A</sub>+ Cable

### Data Sheet

Daro Connectivity is an authorised distributor for Kerpen Datacom's MegaLine® cabling systems in copper for Data Centres, Offices, Industry and the Home.

Kerpen Datacom's MegaLine® range of products encompasses everything from copper data cables, ready-made patch cords and trunk cables with connection components through to complete cabling systems.

MegaLine® F10-130 S/F (type KS-02YSCH / 4x2xAWG 22/1 PIMF), is a low smoke zero halogen (LSZH) jacketed Category 7<sub>A</sub> shielded (S/FTP) cable.

Ideal for all applications of classes D to F<sub>A</sub>+ (defined in ISO/IEC 11801), multimedia (TV, video, data, voice) > 10 GbE acc. To IEEE 802.3 an, 25G according to TR-11801-9905 as Channel-Link up to 50 metres, cable sharing, Voice over IP (VoIP), Power Over Ethernet (PoE)/PoE+/ 4PPoE.

Offering performance greater than Category 7<sub>A</sub>+ according to EN 50288 and IEC 61156 with a typical bandwidth of 1500 MHz. Available with Dca, Cca or B2ca CPR compliant constructions all identifiable via distinct jacket colour coding.

The Kerpen Datacom SPACE concept is a pragmatic and clearly structured matrix.

A great, quick decision making tool to help you find the right data cable for your application faster.

The concept is based on the classification of the five main selection criteria for determining the potential overall performance of the data cable: Security, Performance, Application, Construction, EMC.

### Applications

- Structured Cabling
- Local area networks (LAN's)
- Class D to F<sub>A</sub>+ per ISO/IEC 11801
- > 10 GbE per IEEE 802.3an
- Cable sharing
- Voice over IP (VoIP)
- PoE / PoE+ / 4PPoE

### Product Features

- Better than Category 7<sub>A</sub>+
- Bandwidth 1500 MHz
- Excellent shielding characteristics
- Excellent NEXT
- PVP-GHMT
- RoHS, REACH & CPR conformity
- Compliant with LVD (2014/35/EU)

#### Security (fire behaviour)

<b>S</b>	1 IEC 60332-2-2	2 IEC 60332-1-2 Eca / Dca	3 IEC 60332-3-24 Eca / Dca	4 EFP GRADE 1 Cca	5 EFP GRADE 2 B2ca
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#### Performance (cable class, bandwidth)

<b>P</b>	1 >Class E >250 MHz	2 >Class E <sub>A</sub> >500 MHz	3 >Class F >600 MHz	4 >Class F <sub>A</sub> >1000 MHz	5 >Class F <sub>A</sub> + >1200 MHz
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#### Application (ethernet, TV)

<b>A</b>	1 100 MbE	2 1 GbE	3 Up to 10 GbE	4 10 GbE	5 10 GbE TV
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#### Construction (conductor dimension)

<b>C</b>	1 27 AWG	2 26/25 AWG	3 24 AWG	4 23 AWG	5 22 AWG
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#### EMC (coupling attenuation)

<b>E</b>	1 >40 dB	2 >50 dB	3 >60 dB	4 >70 dB	5 >80 dB
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# Technical Information

## Electrical characteristics (HF) at 20 °C

Frequency MHz	Attenuation dB/100 m		NEXT dB		PS-NEXT dB		ACR dB at 100 m		PS-ACR dB at 100 m		EL-FEXT dB at 100 m		PS-ELFEXT dB at 100 m		RL dB	
	typ.	Cat. 7 <sub>A</sub> max.*	typ.	Cat. 7 <sub>A</sub> min.*	typ.	Cat. 7 <sub>A</sub> min.*	typ.	Cat. 7 <sub>A</sub> min.*	typ.	Cat. 7 <sub>A</sub> min.*	typ.	Cat. 7 <sub>A</sub> min.*	typ.	Cat. 7 <sub>A</sub> min.*	typ.	Cat. 7 <sub>A</sub> min.*
1	1.6	1.9	110	80	107	77	108	78	105	75	109	80	106	77	26.1	23
10	4.2	5.4	110	78	107	75	106	72	103	69	109	74	106	71	32.3	25
100	14.4	17.5	110	76	107	73	96	58	93	55	93	54	90	51	36.2	20.1
200	21.5	25.3	110	72	107	69	88	47	85	46	86	48	83	45	35.5	18
250	24.5	28.5	105	70	102	67	81	42	78	39	83	46	80	43	34.8	17.3
500	34	41.8	105	65.5	102	62.5	71	24	68	21	70	40	67	37	31.8	17.3
600	37.7	46.3	100	64.3	97	61.3	62	18	59	15	64	38.4	61	35.4	28.5	17.3
800	44.5	54.5	95	62.5	92	59.5	50	8	47	5	58	35.9	55	32.9	25.3	16.1
900	48.1	58.4	95	61.7	92	58.7	47	3	44	0	54	34.9	51	31.9	23.8	15.5
1000	49	62	92	61	89	58	43	-1.1	40	-4	49	34	46	31	22.2	15.1
1200	54.9	69	88	59.8	85	56.8	34	-9	31	-12	40	32.4	37	29.4	20.2	14.3
1300	57	-	81	-	78	-	24	-	21	-	35	-	32	-	18.3	-
1400	58.1	-	74	-	71	-	16	-	13	-	30	-	27	-	16.3	-
1500	62	-	73	-	70	-	11	-	8	-	25	-	22	-	12.3	-

\* EN 50288-9-1(2013)/IEC 61156-5 (2009)/IEC 61156-7(2003). If IO FEXT is min. 90 dB, EL-FEXT is fulfilled by design.

### Electrical characteristics (LF) at 20 °C

Direct current resistance	max.	57.1 Ω/km
Insulation resistance	min.	5 GΩ x km
Mutual capacitance	approx.	42 pF/m
Capacitive coupling (e)	approx.	1000 pF/km
Signal tempo (c)	approx.	0.77
Propagation delay	approx.	420 ns/100 m
Skew at 100 MHz	approx.	3 ns/100 m
Charact. impedance	at 100 MHz	100 ± 5 Ω
Testing voltage U <sub>eff</sub>		1000 V
Operating voltage	max.	125 V

### Thermal properties

For fixed installation	-20 °C to +60 °C
For mobile operation	0 °C to +50 °C

### Chemical characteristics

Free of hazardous substances acc. to RoHS 2011/65/EU

### Cable printing for 4P

Kerpen Datacom MegaLine  
G12-150 S/F 4P H 25G 4PPoE  
"CPR Class" "DoP no." Made in Germany  
"Batch number" "Metre marking"

### Colour code

WH/BU, WH/OG, WH/GN, WH/BN

### Certificates and approvals

Quality mark with production control:  
GHMT PVP  
Link performance: Kerpen Datacom MegaLine® systems and other commonly available connector systems  
Test certificates: according to DIN 55350-18-4.2.1 or EN 10204  
Compliant with LVD (2014/35/EU): **CE**  
Compliant with Construction Products Regulation (EU/305/2011): **CE**

## Ordering Information

Dimension	Outer Ø approx. mm	Weight approx. kg/km	Copper no.* kg/km	CPR class	DoP no.	Sheath colour	Order number
4P	8.6	80	48	D <sub>ca</sub> s2 d2 a1	CDESK0000007	Yellow	DFP-LKD7KS80001xxxx
4P	8.6	80	48	C <sub>ca</sub> s1 d1 a1	CDESK0000034	Lime Green	DFP-LKD7KS8C001xxxx
4P	8.6	80	48	B2 <sub>ca</sub> s1a d1 a1	CDESK0000010	Yellow Green	DFP-LKD7KS8B001xxxx

Packaging: xxxx

Standard length: 0100 = 1000 m 0050 = 500 m 0000 = general

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