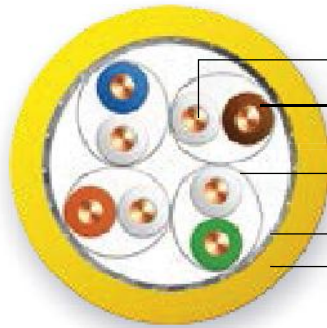


MegaLine® F10-115 S/F

Types KS-02YSCH 4x2xAWG 23/1 PIMF
KS-02YSCH 2/4/6x(4x2xAWG 23/1 PIMF)

Category 7_AS₃ P₄ A₄ C₄ E₅**Construction 4 p**

Conductor	Bare copper wire, AWG 23/1
Insulation	Cellular-PE, core-diameter: nominal value 1.4 mm
Twisting element	Pair
Individual shielding	Aluminium-bonded polyester foil, metal side outside (PIMF)
Twisting	4 pairs
Overall shielding	Tinned copper braiding
Outer sheath	Halogen-free, flame-retardant compound

Fire behaviour

Flame retardancy	acc. to IEC 60332-3-24
Halogen free	acc. to IEC 60754-1/2
Smoke density	acc. to IEC 61034-1/2
Calorific value (approx.)	0.60 MJ/m (Sx), 1.2 MJ/m (Dx), 4.24 MJ/m (4 p), 6.29 MJ/m (6 p)

Performance

Better than Category 7_A acc. to EN 50288 and IEC 61156 excellent NEXT, very low attenuation, excellent shielding characteristics (shielding of pairs and overall shielding), low skew, bandwidth 1,150 MHz

Applications

Installation cable for use in structured cabling systems acc. to ISO/IEC 11801 and EN 50173 (2nd edition).
Ideal for all applications from Classes D to F_A Multimedia (video, data, voice)
>10 GbE acc. to IEEE 802.3 an, cable sharing, VoIP, PoE.

Mechanical characteristics

Bending radius	during installation	8 x overall diameter (min.)
	after installation	4 x overall diameter (min.)
Tensile strength (max.)		110 N (Sx), 220 N (Dx), 440 N (4 p), 650 N (6 p)
Crush strength		1,000 N/100 mm
Impact strength (number of shocks)		10

Electromagnetic behaviour

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

Security (fire behaviour)

S	1 IEC 60332-2-2	2 IEC 60332-1-2	3 IEC 60332-3-24	4 EFP Grade 1	5 EFP Grade 2
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Performance (cabling class, bandwidth)

P	1 > Class E > 250 MHz	2 > Class E _A > 500 MHz	3 > Class F > 600 MHz	4 > Class F _A > 1000 MHz	5 > Class "G" > 1200 MHz
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Application (Ethernet, TV)

A	1 > 100 MbE	2 > 1 GbE	3 Up to 10 GbE	4 > 10 GbE	5 > 10 GbE TV
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Construction (conductor dimensions, tensile strength)

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

E	1 > 40 dB	2 > 50 dB	3 > 60 dB	4 > 70 dB	5 > 80 dB
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Electrical characteristics (HF) at 20 °C

Frequency MHz	Attenuation dB/100 m		NEXT dB		PSNEXT dB		ACR dB at 100 m		PSACR dB at 100 m		ACRF dB at 100 m		PSACRF dB at 100 m		RL dB	
	typ.	Cat. 7 _A max.*	typ.	Cat. 7 _A min.*	typ.	Cat. 7 _A min.*	typ.	Cat. 7 _A min.*	typ.	Cat. 7 _A min.*	typ.	Cat. 7 _A min.*	typ.	Cat. 7 _A min.*	typ.	Cat. 7 _A min.*
1	1.9	2.1	105	78	102	75	104	75.9	101	72.9	98	78	95	75	26.6	20
10	4.8	5.8	105	78	102	75	101	72.2	98	69.2	103	75.3	100	72.3	35.3	25
100	16.3	18.5	105	75.4	102	72.4	89	56.9	86	53.9	89	55.3	86	52.3	39.6	20.1
200	24.3	26.5	105	70.9	102	67.9	81	44.4	78	41.4	82	49.3	79	46.3	36	18
250	27.5	29.7	105	69.4	102	66.4	78	39.7	75	36.7	79	47.3	76	44.3	34	17.3
500	37.9	42.8	100	64.9	97	61.9	62	22.2	59	19.2	67	41.3	64	38.3	29	17.3
600	42.4	47.1	95	63.7	92	60.7	53	16.6	50	13.6	60	39.7	57	36.7	25.4	17.3
700	47.2	51.1	95	62.7	92	59.7	48	11.6	45	8.6	57	38.4	54	35.4	24.6	16.6
800	50.3	54.9	93	61.9	90	58.9	43	6.9	40	3.9	53	37.2	50	34.2	23.5	16.1
900	54.6	58.5	90	61.1	87	58.1	35	2.6	32	-0.4	49	36.2	46	33.2	22.6	15.5
1000	58	61.9	88	60.4	85	57.4	30	-1.5	27	-4.5	44	35.3	41	32.3	21.5	15.1
1150	61.9	—	86	—	83	—	25	—	22	—	39	—	36	—	20.6	—
1200	64	—	85	—	82	—	21	—	18	—	35	—	32	—	19	—

* EN 50288-4-1 (2004)/IEC 61156-5 (2002)

Electrical characteristics (LF) at 20 °C

DC resistance	max.	75 Ω/km
Insulation resistance	min.	5 GΩ x km
Mutual capacitance	approx.	42 pF/m
Capacitive coupling (e)	approx.	1,500 pF/km
Signal velocity (c)	approx.	0.80
Propagation delay	approx.	420 ns/100 m
Skew at 100 MHz	approx.	5 ns/100 m
Characteristic impedance	at 100 MHz	100 ± 5 Ω
Testing voltage U _{eff}		1,000 V
Operating voltage	max.	125 V

Thermal characteristics

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

Chemical characteristics

Free from hazardous substances acc. to RoHS 2002/95/EC

Printing on outer sheath 4 p

LEONI MegaLine F10-115 S/F 4P H SPACE Code 34445
 "VDE approval mark" "production lot code" "meter marking"

Colour code

wh/bu, wh/or, wh/gn, wh/bn

Certificates and approvals

Quality mark with production control: <VDE>
 Link performance: LEONI MegaLine® systems
 and further commercial connector systems
 Inspection certificates: acc. to DIN 55350-18-4.2.1/EN 10204
 Conforms to LVD (73/23/EEC): 

Dimensions	Outer diam. approx.	Weight approx.	Cu content	Colour of sheath	Order no.
	mm	kg/km	kg/km		
4 p	7.5	67	37	● Rape yellow RAL 1021	LKD 7KS7 0008 0000
2 x 4 p	7.5 x 15.2	136	74	● Rape yellow RAL 1021	LKD 7KS7 0009 0000
4 x 4 p	19.9	365	148	● Rape yellow RAL 1021	LKD 7KS7 0161 0000
6 x 4 p	23.6	514	222	● Rape yellow RAL 1021	LKD 7KS7 0186 0000

Package: Drum 1,000 m