Data Cable

MegaLine® F6-90 S/F flex

$S_2 P_3 A_4 C_1 E_5$

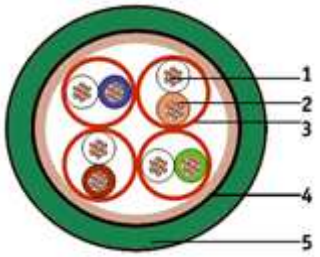
LEONI

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

Category: 7

Construction:

1	Conductor:	bare copper wire, AWG27/7
2	Insulation:	cellular-PE, core-Ø: max. 1.0 mm
	Twisting element:	pair
3	Individual screen:	aluminium-bonded polyester tape
	Twisting:	4 pairs
4	Overall screen:	tinned copper wire braid
5	Outer sheath:	halogen free, flame retardant compound



colour code:	wh/bl, wh/or, wh/gn, wh/br
Colour outer sheath:	green, RAL-6016

printing outer sheath:
LEONI MegaLine F6-90 S/F flex 4P H SPACE Code 23415 Dca s2 d2 a1 $Production lot code$ $Meter marking$

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fire behaviour:

flame resistance:	acc. to IEC 60332-1-2
halogen free:	acc. to IEC 60754-1/2
smoke density:	acc. to IEC 61034-1/2
Acidity:	according EN 60754-2
fire load (MJ/m):	0.33 (approx.)
Class:	D_{ca} s2 d2 a1 according EN 50575 / EN 50399

S	1 IEC 60332-2-2	**2 IEC-60332-1-2 E_{ca}/D_{ca}**	3 IEC-60332-3-24 E_{ca}/D_{ca}	4 EFP Grade 1 C_{ca}	5 EFP grade 2 B_{2ca}

Security (fire behaviour)

performance:
better than Category 7 acc. to EN 50288 and IEC 61156 excellent NEXT, exzellente screen properties (pair- and overall screen), low Skew
bandwidth (typical): 900 MHz

P	1 > class E > 250 MHz	2 > class EA > 500 MHz	**3 > class F > 600 MHz**	4 > class FA > 1000 MHz	5 > class G > 1200 MHz

Performance (class, bandwidth)

applications:
Connecting cable and patch cord for generic cabling systems acc. to ISO/IEC 11801 and EN 50173 (3nd edition). Ideal for all applications of class D up to F Multimedia (Video, Data, Voice) >10 GbE acc. to IEEE 802.3 an, Cable sharing, VoIP, PoE/PoE+

A	1 > 100 MbE	2 > 1 GbE	3 up to 10 GbE	**4 > 10 GbE**	5 > 10 GbE TV

application (Ethernet, TV)

mechanical characteristics:
bending radius:
in operation: 5 x outer diameter (min.)
tensile loading (N): 40 (max.)

C	**1 AWG 27**	2 AWG 26/25	3 AWG 24	4 AWG 23	5 AWG 22

Construction (conductor size, tensile strengh)

electromagnetic behaviour:

transfer impedance at 10 MHz (mOhm/m):	5 (nominal value)
screen attenuation up to 1000 MHz (dB):	60 (nominal value)
coupling attenuation up to 1000 MHz (dB):	80 (nominal value)
Segregation class according EN 50174-2::	d

E	1 > 40 dB	2 > 50 dB	3 > 60 dB	4 > 70 dB	**5 > 80 dB**

EMC (coupling attentuation)

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

Electrical characteristics at 20°C:

conductor resistance (Ohm/km):	170 (max.)
insulation resistance (GOhm x km):	5 (min.)
mutual capacitance (pF/m):	44 (approx.)
velocity of propagation (c):	0.78 (approx.)
phase delay (ns/100m):	430 (approx.)
delay skew at 100 MHz (ns/100m):	2.5 (approx.)
characteristic impedance at 100 MHz (Ohm):	100±5
test voltage Ueff (V):	1000
operating voltage (V):	125 (max.)

frequenz 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	,26	,29	95	80	92	77	95	80	92	77	92	80	89	80	21,8	-
10	,83	,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(2014)/IEC 61156-6(2002)

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Chemical characteristics:
Free of harzadous substances acc. to RoHS 2011/65/EU

Thermal characteristics:

Temperature range for fixed installation	-20°C up to +60°C
Temperature range for mobile operation	0°C up to +50°C

certificate and approbation:
Link Performance:
test certificate:
conform to LVD (2014/35/EU)
Conform to CPR (EU/305/2011)

LEONI MegaLine® systems and further commercial plug-inn connector acc. to DIN 55350-18-4.2.1 bzw. EN 10204
CE
CE

Article Number:	Presentation (m)	Size:	Outer diameter (mm):	weight (kg/km):	copper sales factor (kg/km):	colour of outer sheath:
LKD7KS700160000	**general**	4P	5.7 (approx.)	34 (approx.)	17	green, RAL-6016
LK97KS700160030	305					