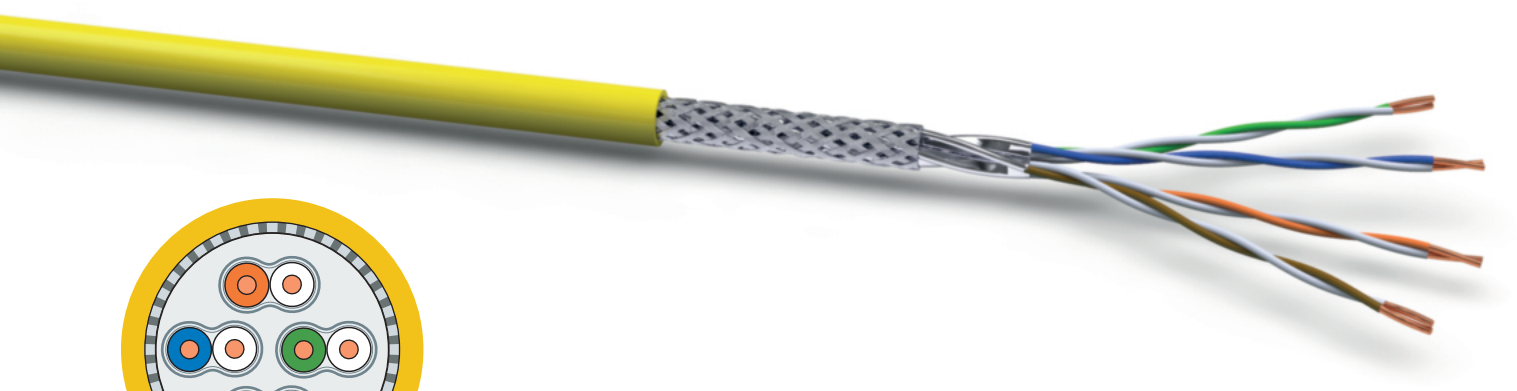

VOKA-LAN MLAN 1000 S/FTP 4PR AWG 23/1 FRNC Dca

Data cable for marine and offshore usage
Category 7 better than class F up to 600 MHz

APPLICATION

UV-resistant reinforced data cable for transmission analog and digital signals for cabling in environments with harder electrical and mechanical requirements, as well as for use on ships and offshore. With DNV and GL rating. Approved for usage acc. to euroclass classification Dca.

Usage: IEEE 802.3 : Ethernet 10Base-T ; Fast Ethernet 100Base-T ; Gigabit Ethernet 1000Base-T ; 10GBase-T
IEEE 802.5 : ISDN ; FDDI ; ATM ; Cable sharing
IEEE 802.3at : PoE / PoE+ suitable

STANDARDS

EN 50288-4-1 ; EN 50173 ; EN 50174-2 ;
ISO/IEC 11801 2. edition ; IEC 61156-5
DNVGL-certificate : TAE00003V0

CONSTRUCTION

Conductor: copper, solid, bare, AWG 23/1
Core insulation: SFS-PE
Core diameter: 1,38 ± 0,05 mm
Core identification: wh-bu, wh-or, wh-gn, wh-bn (IEC 708-1)
Pair screen: plastic-laminated aluminium foil
Screening: tinned copper wire braid
Sheath material: halogen-free compound (FRNC) SHF 1
Sheath color: yellow, RAL 1021

BEHAVIOR UNDER FIRE CONDITIONS

EN 60332-1-2 ; EN 60332-3-24 ; EN 50399 ; EN 50575
EN 61034 ; EN 50267 ; IEC 60754-2 ; IEC 61034
EN 13501-6 class Dca-s1 d2 a1

CHEMICAL PROPERTIES

RoHS 2011/65/EU ; IEC 60811-2-1 (IRM 902, 4h at 70°C)
UV-resistant

ELECTRICAL CHARACTERISTICS

loop resistance max.	max. 150 Ω / km
Insulation resistance min.	min. 5 GΩ x km
	at +20°C
Operating capacity	nom. 45 nF / km
Impetance	100 Ω ± 5 Ω
Test voltage	700 V / AC
Nominal voltage U_0/U	125 V
NVP	ca. 0,79 c
Signal delay	max. 425 ns/100m
Delay skew	< 8 ns/100m
Coupling attenuation	> 85 dB, Type 1
Coupling resistance	< 5 mΩ/m at 10MHz, Grade 1
Separation class	D

THERMAl & MECHANICAl PROPERTIES

Temperature range stationary	-20°C to +60°C
Temperature range during inst.	0°C to +50°C
max. bending radius installed	5 x outer diameter
max. bending radius moved	10 x outer diameter
Maximum traction	120N
Fire load	0,175kWh/m

Dimension	Diameter appr.mm	Cable weight appr.kg/km	Copper index kg/km	Article number
AWG23/1	8.1	75	34	

Version: 06/2020

We reserve changes which serve technical progress • Price upon quantity-specific request

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Transmission characteristics

The stated performance data are characteristic measurements.

f (MHz)	Attenuation (dB/100m) NOM	NEXT (dB) NOM	ACR (dB/100m) NOM	EL-FEXT (dB/100m) NOM	RL (dB) NOM
1	1,7	105	103	95	25
4	3,2	105	102	93	28
10	5,2	105	100	92	30
16	6,5	105	98	91	30
20	7,3	105	98	90	30
31,25	9,4	105	96	86	30
62,5	13,6	103	89	82	30
100	17	100	83	77	30
155	22,2	98	76	73	28
200	24,3	95	71	70	26
300	30,2	93	73	67	25
400	35,2	90	55	64	24
500	39,1	87	48	62	23
600	43,5	85	41	60	23
900	55,2	81	26	53	21
1000	58,1	80	22	50	20

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