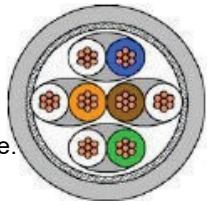
Company Product Designation 99980DNV.2

Product Description



Type CAT7 stranded S/FTP cable

Standards BS EN 50288-4 & IEC 61156-5 & ISO/IEC 11801

Applications Generic cabling systems. Including 10/100/1000 Base -T, 10G, ATM & Token Ring
This range of screened cables is designed to support Cat7 Link and Channel performance.
With internationally defined Physical and Electrical performance up to 600MHz

Commercial information	Properties	Unit
Product group	communication cable	
Series	Marine & offshore communication cable	
Type	Cat.7 S/FTP	
Description	4 x 2 x 0,27mm2 AWG 22/7 LSZH	
Net cable weight	73	Kg/Km
Copper weight	20.8	Kg/Km

Construction	Properties	Unit
Standardization	BS EN 50288-4 & IEC 61156-5 & ISO/IEC 11801	
Stranding element	Pair	
Colour insulated wires	White-Blue /Blue, White-Orange /Orange, White-Green /Green, White-Brown /Brown	
Number of cores	8	
Number of stranding elements	4	
Number of conductors per group	2	
Core identification	with colour stripe on white cores to ease identification	
Conductor material	Copper	
Conductor category	Stranded	
Core insulation	FOAM PE	
Shield	Individually Aluminum poly laminate shielded pairs and overall tinned copper wire Braided cable	
Material outer sheath	oil retardant LSZH	
Colour outer sheath	Grey	

Characteristics for use	Properties	Unit
Flame retardant(IEC 60332-3-22/24)		Yes
Halogen free (acc. IEC 60754-1/2)		Yes
Low smoke (acc. IEC 61034-1/2)		Yes
Conductor diameter	0.669 (7/0.223) ± 0.005	mm
Nominal cross section conductor	0.270	mm^2
Nominal Insulation thickness	0.39 ± 0.01	mm
Nominal insulated diameter	1.47 ± 0.05	mm
Nominal over armour diameter	6.9 ± 0.3	mm
Nominal outer sheath thickness	0.75 ± 0.05	mm
Outer diameter approx.	8.4 ± 0.5	mm
Bending radius after installation	80	mm
Transportation and storage temperature	-40 / 85	°C
min/max installation temperature	-15 / 50	°C
min/max operating temperature	-40 / 85	°C
Tensile load	110	N
Chemical resistance	Mineral oils IRM 902 (IEC 60811-2-1) 70℃/4hours or 23°C /7days	
Resistance UV		Yes

Technical characteristics	Properties	Unit
Conductor DC resistance @ 20 ºC	145	Ohm/km
Velocity factor	72	%
Conductor resistance at 20 ºC unbalance within pair	≤2	%
Conductor resistance at 20 ºC unbalance between pair	≤4	%
insulation resistance at 20 ºC	≥5000	MΩ.m
Capacitance unbalance to earth at 800Hz or 1000Hz	≤160	pF/100m
Dielectric strength conductor/conductor and conductor/screen at 20 ºC 1.0kV d.c. or 0.7 kV a.c. for 1 min. or 2.5 kV d.c. or 1.7 kV a.c. for 2 sec.	no breakdown	
TCL	≥40.0 - 10 *log	10(f) Measuring range: 1 - 250 Mhz
ELTCTL	≥35 - 20 × log10 (f) in the given frequency range of 1 to 30 MHz	
Coupling Attenuation	Type Ⅱ	
Transfer Impedance	Grade Ⅰ	

Transmission Frequency(MHz)	**1**	**4**	**10**	**16**	**20**	**30**	**31.25**	**62.5**	**100**	**200**	**250**	**300**	**600**
Attenuation dB/100m	/	3.7	5.9	7.4	8.3	10.2	10.4	14.9	19.0	27.5	31.0	34.2	50.1
ReturnLoss dB/100m	20	23	25	25	25	23.8	23.6	21.5	20.1	18.0	17.3	17.3	17.3
NEXT dB/100m	78	78	78	78	78	78	78	75.5	72.4	67.9	66.4	65.2	60.7
PSNEXT dB/100m	75	75	75	75	75	75	75	72.5	69.4	64.9	63.4	62.2	57.7
ELFEXT	78	78	74	69.9	68	64.5	64.1	58.1	54	48.0	46	44.5	38.4
PSELFEXT dB/100m	75	75	71	66.9	65.0	61.5	61.1	55.1	51.0	45.0	43.0	41.5	35.4
Delay ns/100m	570	552	545	543	542	541	540	539	538	537	536	536	536
Skew ns/100m	25												