

MegaLine® D1-20 SF/U

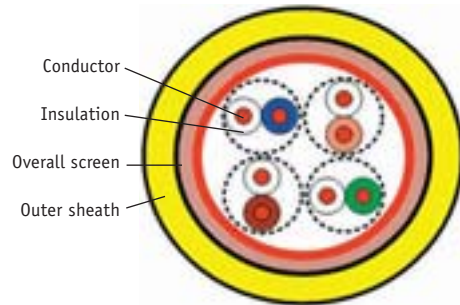
S₂P₀A₁C₃E₃

Type: KS-02YS(ST+C)H 4x2xAWG 24/1
 Type: KS-02YS(ST+C)H 2x(4x2xAWG 24/1)



Construction:

Conductor: bare copper wire, AWG 24/1
 Insulation: cellular-PE, core-Ø: nominal value 1.1 mm
 Twisting element: Pair
 Twisting: 4 pairs
 Overall screen: aluminum-bonded polyester tape and tinned copper wire braid
 Outer sheath: halogen-free, flame retardend compound



Printing outer sheath:

KERPEN MegaLine® D1-20 SF/U 4P H SPACE CODE 20133
 "Production lot code" "Meter marking"

Colour code: whbu/bu, whor/or, whgn/gn, whbn/bn
 Colour outer sheath: yellow, RAL 1021

Fire behaviour:

Flame retardance: acc. to IEC 60332-1-2
 Halogen acid gas emission: acc. to IEC 60754-2
 Smoke density: acc. to IEC 61034
 Calorific value (MJ/m): 0.35/0.7 (approx.)

S	1	2	3	4	5
	IEC 60332-2-2	IEC-60332-1-2	IEC-60332-3-24	EFP Grade 1	EFP Grade 2

Security (Fire behaviour)

Performance:

Better than category 5 acc. EN 50288 and IEC 61156
 very good screening characteristics
 Bandwidth 200 MHz

P	1	2	3	4	5
	> class E > 250 MHz	> class E _A > 500 MHz	> class F > 600 MHz	> class F _A > 1,000 MHz	> class "G" > 1,200 MHz

Performance (Cabling class, bandwidth)

Applications:

Installation cable for generic cabling systems
 acc. ISO/IEC 11801 and EN 50173 (2. edition).
 Ideal for all applications of class D up to 1 GbE
 acc. IEEE 802.3 ab, VoIP, PoE

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

Application (Ethernet, TV)

Mechanical characteristics:

Bending radius:
 during installation: 8 x overall diameter (min.)
 after installation: 4 x overall diameter (min.)
 Tensile strength: 85/170 (max.)
 Crush (N/100mm): 1,000
 Impact (number of shocks): 10

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

Construction (Conductor size, Tensile strength)

Electromagnetic behaviour:

Transfer impedance at 10 MHz (mOhm/m):
 10 (nominal value)
 Screening attenuation up to 1,000 MHz (dB):
 55 (nominal value)
 Coupling attenuation up to 1,000 MHz (dB):
 70 (nominal value)

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

EMC (Coupling attenuation)

Electrical characteristics at 20°C:

- DC resistance (Ohm/km): 95 (max.)
- Insulation resistance (Gohm x km): 500 (min.)
- Mutual capacitance (pF/m): 45 (approx.)
- Transfer capacitance (e) (pF/km): 1,500 (approx.)
- Signal velocity (c): 0.75 (approx.)
- Propagation delay (ns/100m): 440 (approx.)
- Skew at 100 MHz (ns/100m): 15 (approx.)
- Characteristic impedance at 100 MHz (Ohm): 100 ± 5
- Test voltage Ueff (V): 1,000
- Operating voltage Ueff (V): 125 (max.)

Frequency MHz	Attenuation dB/100m		NEXT dB		PS-NEXT dB		ACR dB@100m		PS-ACR dB@100m		EL-FEXT dB@100m		PS-ELFEXT dB@100m		RL dB	
	typ.	Cat.5 max.*	typ.	Cat.5 min.*	typ.	Cat.5 min.*	typ.	Cat.5 min.*	typ.	Cat.5 min.*	typ.	Cat.5 min.*	typ.	Cat.5 min.*	typ.	Cat.5 min.*
1	2	2.1	75	65	72	62	73	63	70	60	89	64	86	61	24.8	-
4	3.1	4	69	56	66	53	66	52	63	49	84	52	81	49	28.6	23
10	5.1	6.3	62	50	59	47	57	44	54	41	76	44	73	41	33.3	25
16	7	8	58	47	55	44	51	39	48	36	70	40	67	37	34.3	25
31,25	9.7	11.4	53	43	50	40	44	31	41	28	63	34	60	31	33.9	23.6
62,5	13.2	16.5	49	38	46	35	36	22	33	19	58	28	55	25	31.3	21.5
100	17.6	21.3	45	35	42	32	28	14	25	11	52	24	49	21	27.7	20.1
155	22.3	-	42	-	39	-	20	-	17	-	49	-	46	-	24.7	-
200	26.5	-	40	-	37	-	14	-	11	-	45	-	42	-	22.4	-

* EN 50288-2-1/IEC 61156-5


Chemical characteristics:

Free of hazardous substances acc. to RoHS 2002/95/EG

Certificates and Approvals:

Link performance: KERPEN ELine™ systems and further commercial cabling systems

Inspection certificate: acc. to DIN 55350-18-4.2.1 respectively EN 10204

In agreement to LVD (73/23/EEC): 

Thermal characteristics:

Temperature range for fixed installation: -20°C up to + 60°C

Temperature range for mobile operation: 0°C up to + 50°C

Article number	Size	Overall diameter mm	Weight kg/km	Copper number kg/km	Colour sheat
7KS50005	4P	6.0 (approx.)	42 (approx.)	26	yellow, RAL 1021
7KS50006	2x4P	6.0 x 12.5 (approx.)	86 (approx.)	52	yellow, RAL 1021

Package: Drum 1,000 m