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MSVLD MSVLD (C)

Halogen-free, Low smoke, Highly Flame Retardant, Heat Shrinkable Wire Identification Sleeves

Description

VLD(DIN) series is the halogen free, low smoke, highly flame retardant cable and wire identification sleeves, which is designed to meet the requirements of EMU for high-speed rails, subways and motor train units. It is made of the polyolefin by means of bombarding and cross-lining of high energy electron beam. Flammability, smoke density, toxicity index, electrical, physical and chemical performances conform to the standards of international motor vehicles. The printed characters are amazingly abrasion resistant, even if the words have encountered detergent or corrosion of military oil before and after shrinking. The soundness of words conforms to the requirements of SAE-AS 81531 and MIL-STD-202F/215J and keeps permanent identification.

Features

- Halogen free low smoke emission materials, designed ideally for motor train unit, rail transit, aerospace, and shipbuilding industrials
- Standard temperature resistance, rated temperature 125°C
- Highly flame retardant, low smoke emissive; meets international locomotive relevant standards
- ROHS compliant; meets SONY SS-00259
- High reliability, permanent identification
- Heat sensitive, swift recovery
- Computer printable, any characters and logo are easy to design

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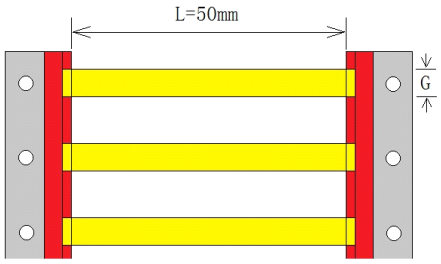
Rated Temperature

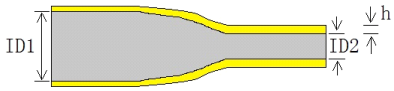
- Continuous operating temperature: -55°C~125°C/-67°F~257°F
- Min. shrink temperature: 85°C/185°F
- Full recovery temperature: 115°C~200°C/239°F~392°F, 8~3minutes
- Max. storage and transportation temperature: ≤50°C/122°F

Standards

- Raw material Standards: ASTM D 2671/DIN5510-2
- Color code soundness: SAE-AS 81531 and MIL-STD-202F/215J
- British and French Smoke Poison Standards: BS 6853/NF F 16-101

Structure





Dimensions(2:1)

Order Description	Expanded As Supplied (mm)			Recovered After Heating (mm)	
	Inner Diameter ID1	Flatten width G	Dual Wall Thickness H	Inner DiameterID2	Single Wall Thickness h
MSVLD-2X-1.6/	2.00±0.20	3.7±0.3	0.48±0.10	≤0.79	0.45±0.06
MSVLD-2X-2.4/	2.79±0.20	5.0±0.3	0.48±0.10	≤1.18	0.49±0.06
MSVLD-2X-3.2/	3.64±0.23	6.3±0.4	0.48±0.10	≤1.59	0.51±0.06
MSVLD-2X-4.8/	5.26±0.25	8.9±0.4	0.49±0.10	≤2.36	0.54±0.06

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MSVLD-2X-6.4/	6.92±0.28	11.5±0.4	0.50±0.10	≤3.18	0.56±0.06
MSVLD-2X-9.5/	10.2±0.32	16.7±0.5	0.51±0.11	≤4.75	0.59±0.06
MSVLD-2X-12.7/	13.5±0.36	21.8±0.6	0.52±0.11	≤6.35	0.60±0.07
MSVLD-2X-19/	20.1±0.40	32.2±0.6	0.53±0.11	≤9.53	0.62±0.07
MSVLD-2X-25/	26.7±0.45	42.5±0.7	0.55±0.12	≤12.7	0.63±0.07
MSVLD-2X-38/	39.8±0.51	63.2±0.8	0.57±0.12	≤19.1	0.64±0.07
MSVLD-2X-51/	53.0±0.56	83.9±0.9	0.58±0.13	≤25.4	0.64±0.08
MSVLD-2X-76/	79.4±0.56	125.3±1.0	0.59±0.13	≤38.1	0.64±0.09

Dimensions(3:1)

Order Description	Expanded As Supplied(mm)			Recovered After Heating(mm)	
	Internal Diameter ID1	Flatten Width G	Dual Wall Thickness H	Inner Diameter ID2	Single Wall Thickness h
MSVLD-3X-1.6/	2.00±0.20	3.7±0.3	0.47±0.10	≤0.53	0.52±0.06
MSVLD-3X-2.4/	2.79±0.20	5.0±0.3	0.47±0.10	≤0.79	0.57±0.06
MSVLD-3X-3.2/	3.64±0.23	6.3±0.4	0.48±0.10	≤1.06	0.61±0.06
MSVLD-3X-4.8/	5.26±0.25	8.9±0.4	0.49±0.10	≤1.59	0.67±0.06
MSVLD-3X-6.4/	6.92±0.28	11.5±0.4	0.50±0.10	≤2.36	0.71±0.06
MSVLD-3X-9.5/	10.2±0.32	16.7±0.5	0.52±0.11	≤3.18	0.77±0.06
MSVLD-3X-12.7/	13.5±0.36	21.8±0.6	0.53±0.11	≤4.75	0.80±0.07
MSVLD-3X-19/	20.1±0.40	32.2±0.6	0.55±0.11	≤6.35	0.84±0.07
MSVLD-3X-25/	26.7±0.45	42.5±0.7	0.56±0.12	≤8.47	0.86±0.07
MSVLD-3X-38/	39.8±0.51	63.2±0.8	0.57±0.12	≤12.9	0.89±0.07
MSVLD-3X-51/	53.0±0.56	83.9±0.9	0.57±0.13	≤17.2	0.90±0.08
MSVLD-3X-76/	79.4±0.56	125.3±1.0	0.59±0.13	≤25.8	0.92±0.09

Standard Packaging Data

No.	Sizes	Packaging(Pcs/Reel)	
		Box 210	Box 146
1	Φ1.6	2500	250
2	Φ2.4	2500	250

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3	Φ3.2	2000	250
4	Φ4.8	2000	250
5	Φ6.4	1500	250
6	Φ9.5	1000	250
7	Φ12.7	500	250
8	Φ19	500	250
9	Φ25	500	250
10	Φ38	250	250
11	Φ51	250	250
12	Φ76	250	250

Technical Performance

Performance			Indicators	Test Method
Typical properties	Unit	States		
Tensile Strength	Mpa	Unaged	≥10.3	ASTM G 154,MIL-DTL-23053E ISO 37,500mm/min 175°C,168h,ISO 188
		Heat aged/ After fluids/UV aged	≥6.9	
Elongation at break	%	Unaged	≥200	
		Heat aged/ After fluid	≥100	
Secant Modulus	Mpa	Unaged	< 173	ASTM D 882
Voltage Withstand	V	Unaged / After aged	2500V, No breakdown in 60 sec.	IEC 243,ASTM G 154 175°C,168h,ISO 188
Dielectric Strength	MV/m	Before aged	≥19.7	
		Heat aged/ After fluid/ UV aged	≥15.8	
Volume Resistivity	Ω.cm	Unaged	$\geq 10^{14}$	IEC 93
Dielectric constant	-	Unaged	-	ASTM 150
Water Absorption	-	Unaged	≤1.0	ASTM 570,23°C,24h

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Bare Copper Corrosion	-	Unaged	No corrosion	23°C,Rh 95±5%,24h 175°C,16h
Heat Shock	-	Unaged	No cracks, flowing, dripping	Wind to the specified mandrel, 225°C,4h
Cold Flexibility	-	Unaged	No cracks	Wind to the specified mandrel, -30°C,1h
Flammability	-	Unaged	DIN 5510, S3	DIN 5510-2
Longitudinal Change	%	Unaged	2X: -10~+1 3X: -15~+5	200°C,Constant 3min
Smoke Density	-	Unaged	≤0.017	DIN 5510-2
Toxcity Index	-	Unaged	≤1	BS 6853:1999