



## MTVLD

### Halogen Free, Low Smoke, Highly Flame Retardant, Cable Identification Tags



#### Description

**MTVLD(DIN)** halogen free, low smoke, highly flame retardant marker tags are made by means of bombardment and cross-linking of the environmentally friendly polyolefin with high energy electron beams. Marker tags are non-adhesive that can be used to identify EMU for high-speed rails, subways, motor train units, submarines and aerospace. Marker tags are attached on large cables and wire bundles with cable ties and keep permanent identification.

#### Features

- Halogen free low smoke emitting materials, ideal for identifying motor train unit, rail transit, aerospace and naval vessels
- Not necessary to disconnect the electrical return circuit when installing the identification maker labels
- Using the binding wire, easy to handle
- Temperature resistance, rated temperature 125°C
- Highly flame retardant, low toxicity index, meets international locomotive standards
- RoHS compliant, meets SONY SS-00259
- Permanent identification, not melting in high temp., not turning fragile in low temp., resistant to scrape, rub, abrasion
- Computer-printable, any character and logo are easy to design.



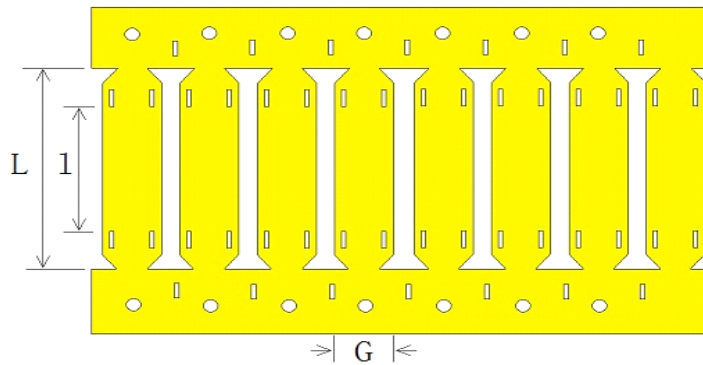
## Rated Temperature

- Continuous operating temperature: -55°C~135°C/-67°F~275°F
- Max. storage and transportation temp.: ≤50°C /122°F

## Standards

- Material standards: ASTM D 2671/DIN5510-2
- British/French smoke toxicity standards: BS 6853/NF F 16-101
- Color code soundness: SAE-AS 81531 and MIL-STD-202G/215K

## Structure



## Dimensions

| Order description | Width | L<br>Length(mm) | Printed Characters |          | Cable OD(mm) |
|-------------------|-------|-----------------|--------------------|----------|--------------|
|                   | G(mm) |                 | Height G           | Length l |              |
| MTVLD-10.4-45/4/  | 10.4  | 45              | 10.4               | 25       | 5.08~12.7    |
| MTVLD-10.4-53/4/  | 10.4  | 53              | 10.4               | 33       | 5.08~12.7    |
| MTVLD-10.4-64/4/  | 10.4  | 64              | 10.4               | 44       | 5.08~12.7    |



|                  |      |    |      |    |           |
|------------------|------|----|------|----|-----------|
| MTVLD-10.4-76/6/ | 10.4 | 76 | 10.4 | 56 | 5.08~12.7 |
| MTVLD-10.4-90/6/ | 10.4 | 90 | 10.4 | 70 | 5.08~12.7 |
| MTVLD-15.0-45/4/ | 15.0 | 45 | 15.0 | 25 | 12.7~19.1 |
| MTVLD-15.0-53/4/ | 15.0 | 53 | 15.0 | 33 | 12.7~19.1 |
| MTVLD-15.0-64/4/ | 15.0 | 64 | 15.0 | 44 | 12.7~19.1 |
| MTVLD-15.0-76/6/ | 15.0 | 76 | 15.0 | 56 | 12.7~19.1 |
| MTVLD-15.0-90/6/ | 15.0 | 90 | 15.0 | 70 | 12.7~19.1 |
| MTVLD-20.3-45/4/ | 20.3 | 45 | 20.3 | 25 | 19.1~25.4 |
| MTVLD-20.3-53/4/ | 20.3 | 53 | 20.3 | 33 | 19.1~25.4 |
| MTVLD-20.3-64/4/ | 20.3 | 64 | 20.3 | 44 | 19.1~25.4 |
| MTVLD-20.3-76/6/ | 20.3 | 76 | 20.3 | 56 | 19.1~25.4 |
| MTVLD-20.3-90/6/ | 20.3 | 90 | 20.3 | 70 | 19.1~25.4 |
| MTVLD-25.4-45/4/ | 25.4 | 45 | 25.4 | 25 | ≥25.4     |
| MTVLD-25.4-53/4/ | 25.4 | 53 | 25.4 | 33 | ≥25.4     |
| MTVLD-25.4-64/4/ | 25.4 | 64 | 25.4 | 44 | ≥25.4     |
| MTVLD-25.4-76/6/ | 25.4 | 76 | 25.4 | 56 | ≥25.4     |
| MTVLD-25.4-90/6/ | 25.4 | 90 | 25.4 | 70 | ≥25.4     |

## Technical Performance

| Performance | Indicators | Test Method |
|-------------|------------|-------------|
|-------------|------------|-------------|



| Typical properties    | Unit | States                             |   |  |
|-----------------------|------|------------------------------------|---|--|
| Tensile Strength      | Mpa  | Unaged                             | ≥10.3                                   | ASTM G<br>154,MIL-DTL-23053E<br>ISO 37,500mm/min<br>175°C,168h,ISO 188 |
|                       |      | Heat aged/ After<br>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 , 60 seconds<br>without breakdown |  |
| Dielectric Strength   | MV/m | Before aged                        | ≥19.7                                   | IEC 243,ASTM G 154<br>175°C,168h,ISO 188                               |
|                       |      | Heat aged/ After fluid/<br>UV aged | ≥15.8                                   |  |
| Volume Resistivity    | Ω.cm | Unaged                             | ≥10 <sup>14</sup>                       | IEC 93   |
| Dielectric constant   | -    | Unaged                             | -                                       | ASTM 150   |
| Water Absorption      | -    | Unaged                             | ≤1.0                                    | ASTM 570,23°C,24h  |
| Bare Copper Corrosion | -    | Unaged                             | No corrosion                            | 23°C,Rh 95±5%,24h<br>175°C,16h   |
| Heat Shock            | -    | Unaged                             | No tracks ,No<br>dripping               | 225°C,4h   |
| Cold Flexibility      | -    | Unaged                             | No tracks                               | -30°C,1h   |
| Flammability          | -    | Unaged                             | DIN 5510 , S3                           | DIN 5510-2   |
| Smoke Density         | -    | Unaged                             | ≤0.017                                  | DIN 5510-2   |
| Toxcity Index         | -    | Unaged                             | No tracks ,No<br>dripping               | 225°C,4h   |