

## TMS-SCE Military grade heat shrinkable wire identification sleeves

TMS-SCE marker sleeves are designed to meet the wire and cable marking needs of manufacturers with high performance requirements. Made from durable, flame retardant, radiation-crosslinked heat-shrinkable polyolefin, TMS-SCE marker sleeves can be used in a wide variety of applications. All TMS-SCE meet the performance requirements of SAE-ASM-DTL-23053/5 class 1. TMS-SCE-2X meets all of the requirements of SAE-AMS-DTL-23053/5 classes 1 and 3. The marks are permanent immediately after printing and remain legible even when exposed to abrasion, aggressive cleaning solvents, and military fuels and oils. The sleeves meet the mark permanence requirements of SAE AS81531 4.6.2 and MIL-STD-202 both before and after shrinking.

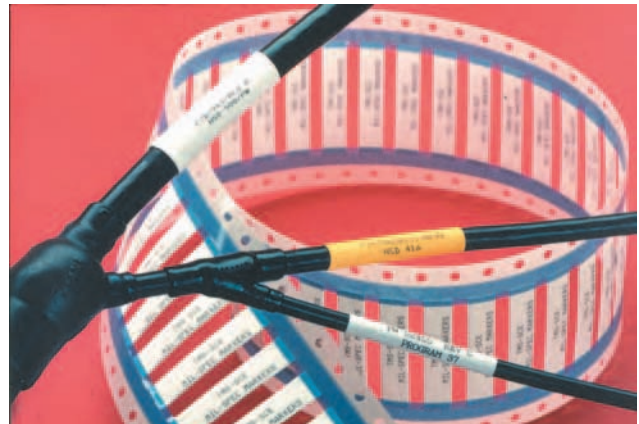
Both 2:1 and 3:1 shrink ratios are available. The 2:1 products provide a thick, rugged sleeve wall and are particularly easy to handle. The lightweight 3:1 products provide extremely fast shrinking and cover a wider range of wire diameters, thus simplifying inventory.

The marker sleeves are designed to be printed by computer-driven dot matrix or thermal transfer printers, providing several advantages in terms of reduced errors, cycle time and cost.

Supplied in a thin, flat "ladder" format, the sleeves are held horizontally between two hole-punched polyester strips. This configuration feeds directly from the storage box into a Tyco Electronics recommended printer. Tyco Electronics recommended ribbons should always be used. The ladder format provides automatic kitting of the marker sleeves in the desired sequence. A standard heat gun with reflector is used to shrink the sleeves onto the wire or cable.

### Features and benefits

- Permanent identification sleeves
- Computer-printable
- Lightweight for aerospace applications
- Military specification material and print performance
- 2:1 and 3:1 shrink ratio
- CSA Certified
- UL Recognized, VW all flame tubing test rated
- Quick recovery for heat sensitive areas



### Temperature rating

|                              |                 |                 |
|------------------------------|-----------------|-----------------|
| Operating temperature range  | -55°C to +135°C | -67°F to +275°F |
| Minimum recovery temperature | +85°C           | +185°F          |
| Maximum storage temperature  | +40°C           | +104°F          |

### Specifications/approvals

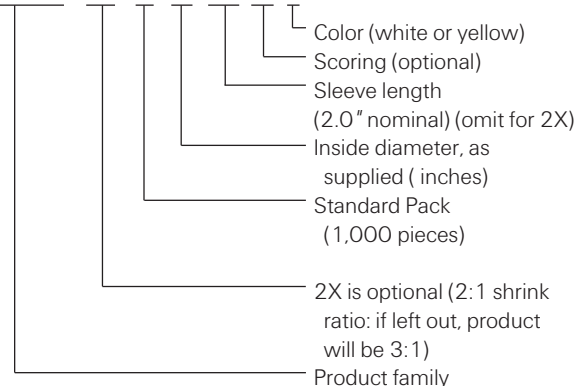
|                  |  |
|------------------|--|
| Tyco Electronics | RW 25 11<br>TTDS-Q23   |
| Military         | SAE-AMS-DTL-23053/5 class 1 and 3 (TMS-SCE-2X)<br>SAE-AMS-DTL-23053/5 class 1 (TMS-SCE)<br>SAE AS81531 4.6.2, MIL-STD-202 Method 215J                  |
| Industry         | UL Recognized – Standard 224, file E35586<br>(TMS-SCE-2X is UL224-VW1 rated. TMS-SCE is UL224-all tube flame test rated)<br>CSA Certified – File 31929 |

### Printer information

|                          |   |
|--------------------------|---|
| Tyco Electronics printer | AM6310 (dot matrix)<br>T200 Series (thermal transfer, low volume)<br>T312M (thermal transfer)   |
| Tyco Electronics ribbon  | 1892BK04-RIBBON (dot matrix)<br>TMS-101-RIBBON-4RPSCE (thermal transfer for T208M)<br>TMS-RJS-RIBBON-4RPSCE (thermal transfer for T312M)) |

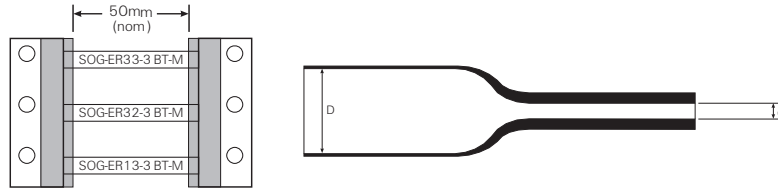
### Part numbering system

TMS-SCE - 2X - 1K<sup>-1</sup>/s- 2.0-S1-9



**TMS-SCE Military grade heat shrinkable wire identification sleeves**

**Ordering information**



**Available sizes and formats**

| Ordering description                                   | Expanded D (minimum)                                   |        | Recovered d (maximum) |        | Recommended use range |               | Recovered wall thickness |               | Weight (g/10 pcs.) |
|--|--|--------|-----------------------|--------|-----------------------|---------------|--------------------------|---------------|--------------------|
|  | mm   | inches | mm                    | inches | mm                    | inches        | mm                       | inches        |                    |
|  | TMS-SCE-1K- <sup>3</sup> / <sub>32</sub> -2.0- <color> | 2.36   | 0.093                 | 0.79   | 0.031                 | 0.81 - 1.90   | 0.032 - 0.075            | 0.53 ± 0.08   |                    |
| TMS-SCE-2X-1K- <sup>3</sup> / <sub>32</sub> - <color>  | 2.36   | 0.093  | 1.17                  | 0.046  | 1.27 - 1.90           | 0.050 - 0.075 | 0.64 ± 0.08              | 0.025 ± 0.003 | 2.04               |
| TMS-SCE-1K- <sup>1</sup> / <sub>8</sub> -2.0- <color>  | 3.18   | 0.125  | 1.07                  | 0.042  | 1.11 - 2.66           | 0.044 - 0.105 | 0.58 ± 0.08              | 0.023 ± 0.003 | 2.03               |
| TMS-SCE-2X-1K- <sup>1</sup> / <sub>8</sub> - <color>   | 3.18   | 0.125  | 1.58                  | 0.062  | 1.75 - 2.66           | 0.069 - 0.105 | 0.64 ± 0.08              | 0.025 ± 0.003 | 2.75               |
| TMS-SCE-1K- <sup>3</sup> / <sub>16</sub> -2.0- <color> | 4.75   | 0.187  | 1.57                  | 0.062  | 1.75 - 4.06           | 0.069 - 0.160 | 0.58 ± 0.08              | 0.023 ± 0.003 | 2.68               |
| TMS-SCE-2X-1K- <sup>3</sup> / <sub>16</sub> - <color>  | 4.75   | 0.187  | 2.36                  | 0.093  | 2.54 - 4.06           | 0.100 - 0.160 | 0.64 ± 0.08              | 0.025 ± 0.003 | 3.62               |
| TMS-SCE-1K- <sup>1</sup> / <sub>4</sub> -2.0- <color>  | 6.35   | 0.250  | 2.11                  | 0.083  | 2.31 - 5.46           | 0.091 - 0.215 | 0.58 ± 0.08              | 0.023 ± 0.003 | 3.51               |
| TMS-SCE-2X-1K- <sup>1</sup> / <sub>4</sub> - <color>   | 6.35   | 0.250  | 3.18                  | 0.125  | 3.81 - 5.46           | 0.150 - 0.215 | 0.64 ± 0.08              | 0.025 ± 0.003 | 5.94               |
| TMS-SCE-1K- <sup>3</sup> / <sub>8</sub> -2.0- <color>  | 9.53   | 0.375  | 3.18                  | 0.125  | 3.47 - 8.12           | 0.137 - 0.320 | 0.61 ± 0.08              | 0.024 ± 0.003 | 5.04               |
| TMS-SCE-2X-1K- <sup>3</sup> / <sub>8</sub> - <color>   | 9.53   | 0.375  | 4.75                  | 0.187  | 5.59 - 8.12           | 0.220 - 0.320 | 0.64 ± 0.08              | 0.025 ± 0.003 | 8.50               |
| TMS-SCE-1K- <sup>1</sup> / <sub>2</sub> -2.0- <color>  | 12.70  | 0.500  | 4.22                  | 0.166  | 4.64 - 10.79          | 0.183 - 0.425 | 0.61 ± 0.08              | 0.024 ± 0.003 | 6.81               |
| TMS-SCE-2X-1K- <sup>1</sup> / <sub>2</sub> - <color>   | 12.70  | 0.500  | 6.35                  | 0.250  | 6.99 - 10.79          | 0.275 - 0.425 | 0.64 ± 0.08              | 0.025 ± 0.003 | 11.45              |
| TMS-SCE-1K- <sup>3</sup> / <sub>4</sub> -2.0- <color>  | 19.05  | 0.750  | 6.35                  | 0.250  | 6.99 - 16.25          | 0.275 - 0.640 | 0.61 ± 0.08              | 0.024 ± 0.003 | 12.03              |
| TMS-SCE-2X-1K- <sup>3</sup> / <sub>4</sub> - <color>   | 19.05  | 0.750  | 9.53                  | 0.375  | 10.16 - 16.25         | 0.400 - 0.640 | 0.76 ± 0.08              | 0.030 ± 0.003 | 20.63              |
| TMS-SCE-1K-1-2.0- <color>                              | 25.40  | 1.000  | 8.46                  | 0.333  | 9.29 - 21.59          | 0.366 - 0.850 | 0.64 ± 0.08              | 0.025 ± 0.003 | 15.35              |
| TMS-SCE-1K-1 <sup>1</sup> / <sub>2</sub> -2.0- <color> | 38.10  | 1.500  | 19.05                 | 0.750  | 20.95 - 33.02         | 0.825 - 1.300 | 0.51 ± 0.08              | 0.020 ± 0.003 | 27.51              |
| TMS-SCE-1K-2-2.0- <color>                              | 50.80  | 2.000  | 25.40                 | 1.000  | 27.94 - 44.95         | 1.100 - 1.750 | 0.64 ± 0.08              | 0.025 ± 0.003 | 47.27              |
| TMS-SCE-1K-2 <sup>1</sup> / <sub>4</sub> -2.0- <color> | 57.15  | 2.250  | 19.05                 | 0.750  | 22.32 - 50.80         | 0.880 - 2.000 | 0.76 ± 0.08              | 0.030 ± 0.003 | 42.06              |

Total width as supplied 90.18 mm (3.550 inches) including tape and carrier width.

**Options**

|               |  |   |       |        |             |      |        |             |       |
|---------------|--|---|-------|--------|-------------|------|--------|-------------|-------|
| Prescoring    | Perforated score to produce multiple markers from each sleeve. |   |       |        |             |      |        |             |       |
|               | Number of prescores  | 1 prescore  |       |        | 2 prescores |      |        | 3 prescores |       |
|               | Code   | S1  |       |        | S2          |      |        | S3          |       |
| Package sizes | Standard   | 1K - 1000-piece packs   |       |        |             |      |        |             |       |
|               | Nonstandard  | Smaller and larger pack sizes are available. Please contact Tyco Electronics. |       |        |             |      |        |             |       |
| Colors        | Standard   | Yellow  | White |        |             |      |        |             |       |
|               | Code   | 4   | 9     |        |             |      |        |             |       |
|               | Nonstandard  | Red   | Pink  | Orange | Green       | Blue | Violet | Gray        | Black |
| Code          | 2  | 2L  | 3     | 5      | 6           | 7    | 8      | 0           |       |

Note: 3:1 products yellow and white meet the color requirements of MIL-STD-104 class 1. Otherwise colors are pastel for print contrast.

Ordering information: Specify product name, pack size, sleeve size, prescore format, and color.

Ordering example: TMS-SCE-1K-<sup>1</sup>/<sub>8</sub>-2.0-S1-9 (scored once)

TMS-SCE-2X only available in white