Raychem *INTERCONNECT*
A DIVISION OF *tyco* ELECTRONICS

- Continuous format heat-shrinkable identification tubing
- Computer printable
- Military specification material and print performance
- -55°C to 135°C operating temperature
- 3:1 shrink ratio
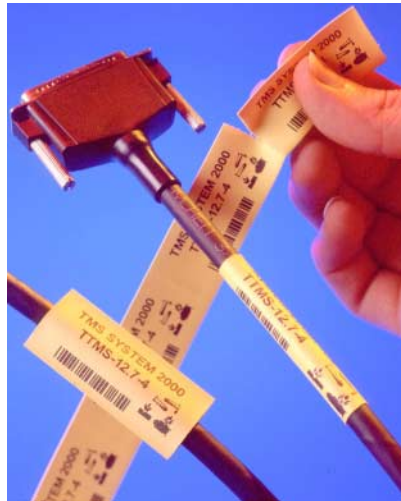- CSA certified, UL recognised (VW-1 rated)

TTMS

Flat heat-shrinkable identification tubing

TTMS tubing is flattened, heat-shrinkable tubing intended for wire and cable identification. Available in continuous spools, TTMS tubing is designed for computer-based printing using Raychem's TMS 2000Plus printer. This product format makes TTMS identification tubing ideal for applications where in-sequence kitting is not of over-riding importance, for example where several hundred identical markers are required. Large pack sizes, usually 100m (328 feet), minimise the number of spool changes necessary during production runs.

TTMS identification tubing is made from durable, flame retarded, radiation-crosslinked heat-shrinkable polyolefin. The printed tubing meets the mark permanence requirements of MIL-DTL-23053/5 classes 1 and 3. The identification marks are permanent immediately after printing and remain legible even when exposed to solvents, fuels and oils. The tubing meets the mark permanence requirements of MIL-M-81531 and MIL-STD-202 both before and after shrinking. Raychem-recommended ribbons should always be used. The tubing has a 3:1 shrink ratio (except sizes 38.1 and 50.8, which are 2:1) and cover a wide range of wire diameters, thus simplifying inventory. The tubing shrinks extremely rapidly, so installation is fast and economical. The installed markers are low profile and lightweight. They may be used to provide strain relief and insulation in addition to identification.

Temperature rating

Operating temperature range	-55°C to 135°C
Minimum recovery temperature	85°C
Maximum storage temperature	40°C

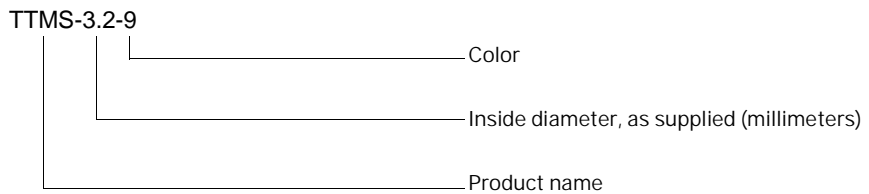## Specifications and approvals

Raychem	RW 2025
UL recognised	Standard 224, file E35586
CSA certified	CSA C22.2 No. 198.1-98, file 31929
Military	MIL-DTL-23053/5, MIL-M-81531, MIL-STD-202F

TTMS

Dimensions inches *(millimeters)*

	Inside diameter		Recommended use range	Recovered wall thickness	Weight lb/ft *(g/m)*
	Expanded (minimum)	Recovered (maximum)			
TTMS-2.4	0.093 *(2.36)*	0.031 *(0.79)*	0.032 - 0.075 *(0.81 - 1.90)*	0.021 ± 0.003 *(0.53 ± 0.08)*	0.0017 *(2.76)*
TTMS-3.2	0.125 *(3.18)*	0.042 *(1.07)*	0.044 - 0.105 *(1.11 - 2.66)*	0.023 ± 0.003 *(0.58 ± 0.08)*	0.0025 *(3.73)*
TTMS-4.8	0.187 *(4.75)*	0.062 *(1.57)*	0.069 - 0.160 *(1.75 - 4.06)*	0.023 ± 0.003 *(0.58 ± 0.08)*	0.0033 *(4.93)*
TTMS-6.4	0.250 *(6.35)*	0.083 *(2.11)*	0.091 - 0.215 *(2.31 - 5.46)*	0.023 ± 0.003 *(0.58 ± 0.08)*	0.0043 *(6.46)*
TTMS-9.5	0.375 *(9.53)*	0.125 *(3.18)*	0.137 - 0.320 *(3.47 - 8.12)*	0.023 ± 0.003 *(0.61 ± 0.08)*	0.0062 *(9.27)*
TTMS-12.7	0.500 *(12.70)*	0.166 *(4.22)*	0.183 - 0.425 *(4.64 - 10.79)*	0.024 ± 0.003 *(0.61 ± 0.08)*	0.0084 *(12.53)*
TTMS-19.0	0.750 *(19.05)*	0.250 *(6.35)*	0.275 - 0.640 *(6.99 - 16.25)*	0.024 ± 0.003 *(0.61 ± 0.08)*	0.0149 *(22.13)*
TTMS-25.4	1.000 *(25.40)*	0.333 *(8.46)*	0.366 - 0.850 *(9.29 - 21.59)*	0.025 ± 0.003 *(0.64 ± 0.08)*	0.0190 *(28.24)*
TTMS-38.1	1.500 *(38.10)*	0.750 *(19.05)*	0.825 - 1.300 *(20.95 - 33.02)*	0.020 ± 0.003 *(0.51 ± 0.08)*	0.0340 *(50.61)*
TTMS-50.8	2.000 *(50.80)*	1.000 *(25.40)*	1.100 - 1.750 *(27.94 - 44.95)*	0.025 ± 0.003 *(0.64 ± 0.08)*	0.0584 *(86.96)*

Part numbering system

TTMS-3.2-9

— Color

— Inside diameter, as supplied (millimeters)

— Product name

Ordering information

Colors	Standard	Yellow	White	Black			
	Code	4	9	0			
	Non-standard	Red	Orange	Green	Blue	Violet	Gray
	Code	2	3	5	6	7	8
Packaging	Standard	328ft (100m) spools for all sizes except 38.1 and 50.8, which are 164ft (50m)					
Ribbons	Tubing size	Total length		Order description	Color		
	2.4mm (3/32″) to 12.7mm (1/2″)	300m (984ft)		2000P-RIBBON-4TT-NAR	Black		
	19.0mm (3/4″) & 25.4 mm (1″)	300m (984ft)		2000P-RIBBON-4TT-MED	Black		
	38.1 mm (1 $^1/_2$″) & 50.8mm (2″)	300m (984ft)		TMS-RJS-RIBBON-4RPSCE	Black		
	2.4mm (3/32″) to 12.7mm (1/2″)	300m (984ft)		2000P-RIBBON-4AG-NAR	Silver		
	19.0mm (3/4″) & 25.4 mm (1″)	300m (984ft)		2000P-RIBBON-4AG-MED	Silver		
	38.1mm (1 $^1/_2$″) & 50.8 mm (2″)	300m (984ft)		TMS-RJS-RIBBON-4AG	Silver		

* Raychem-recommended ribbons should always be used.