



Electrical & Engineering Supplies Ltd.

CABLE & WIRE IDENTIFICATION SOLUTIONS



tyco

Electronics

CABLE & WIRE IDENTIFICATION SOLUTIONS



Identifying All Your Needs

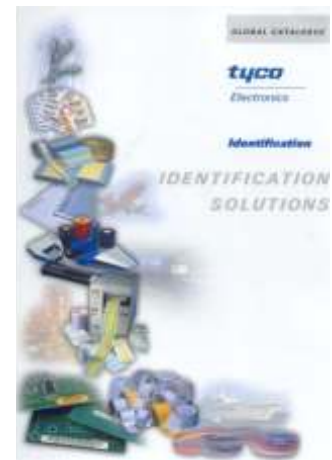
At Express Electrical we are committed to providing the marketplace with the highest quality identification products and industry leading service levels. Having had close associations with this industry for over 20 years we can bring all our experience to bear when offering state of the art solutions to any application.

We have a long history of bringing new marking technologies to this marketplace, as demonstrated by our introduction, some 20 years ago, of printable heat shrink tubing, a technology that has become an industry standard in the intervening years.

Within our portfolio you will find products to address any identification requirement. Some are at the leading edge of technology while others are well established and familiar. Whichever you pick you can rest assured that all products have been chosen by Express to offer you the very best quality items available.

With industry leading brand names like Critchley and Raychem, Tyco Electronics Identification delivers the best in cable and wire identification. They are widely recognised in the market place as a provider of high performance product lines such as Critchley Heat Shrinkable Identification (HSI) and Raychem Thermofit Marking Systems (TMS).

With our combined experience and capabilities Express Electrical and Tyco Electronics Identification are sure to have the answer to all your cable and wire identification needs.



Tyco Electronics Identification Solutions, Global Catalogue, showing full product offering also available upon request



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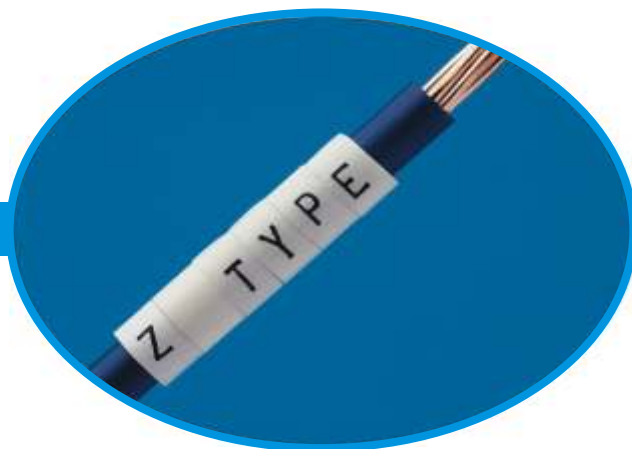
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Z-Type Markers

Gusseted design allows marker to fit firmly over a wide range of cable diameters
 9 sizes for cables from 0.5mm^2 to $25\text{mm}^2</math>
 Clear, legible mark
 Choice of straight or chevron cut
 Colour coded option$

Colour Options

STRAIGHT CUT

White body marked black

A-Z, 0-9 and symbols, available on reels, in boxes and on discs

Yellow body marked black

A-Z, 0-9 and symbols, available on reels only

Colour coded

0-9 all sizes, available in boxes

CHEVRON CUT

White body marked black

A-Z, 0-9 and symbols, available in boxes only

Yellow body marked black

A-Z, 0-9 and symbols, available on reels only

Colour coded

0-9, size 11 only, available in boxes or on reels

Material & Performance

PVC

-45°C to +70°C

Excellent resistance to sea water, detergents (10% aqueous), fuels, oils, white and industrial spirit.

For Cable Diameter mm	For Cable Size mm ² (BS6004)(BS6231)	Marker Size	Marker Length mm	Reel Box	Discs	Order Code (Straight Cut)	Order Code (Chevron Cut)
1.5-2.0	-	5	4.5	1000	-	0580	1151
2.0-3.2	1.0	7	4.5	1000	-	0581	1152
2.5-4.0	1.5	9	4.5	1000	250	0615	1153
2.9-4.7	2.5	11	4.5	1000	250	0616	1154
3.4-5.7	4.0	13	4.5	1000	200	0617	1155
3.8-6.3	6.0	15	4.5	1000	150	0618	1156
4.3-6.9	10.0	18	4.5	500	150	0620	1157
5.5-8.9	16.0	23	6.0	500	75	0622	1158
7.9-12.7	25.0	35	6.0	250	50	0624	1159

Applicators for Z-Type Markers

Size	Z-Type Size	Packed	Order Code
1	7	1	1251
2	9	1	1252
3	11	1	1253
4	13	1	1254
5	15	1	1255
6	18	1	1256



K-Type Markers

Versatile marking system for cables, cable bundles and conduit
 Elliptical marker profile allows easy fitting to carrier strips
 Large character for good legibility
 Two styles of carrier strips holding from 7 to 18 marks
 Wide range of fixing methods

Colour Options

Yellow body or White body marked black
 A-Z, 0-9 and symbols available on reels only
Colour Coded
 0-9, available on reels only

Material & Performance

PVC
 -40°C to +70°C
 Excellent resistance to sea water, detergents (10% aqueous), fuels, oils, white and industrial spirit.

For Cable Diameter mm	For Cable Size mm ² (BS6004)(BS6231)	Marker Size	Marker Length mm	Packed Reel	Order Code
4.2-7.0	4.0-10.0	65	6.0	500	1361

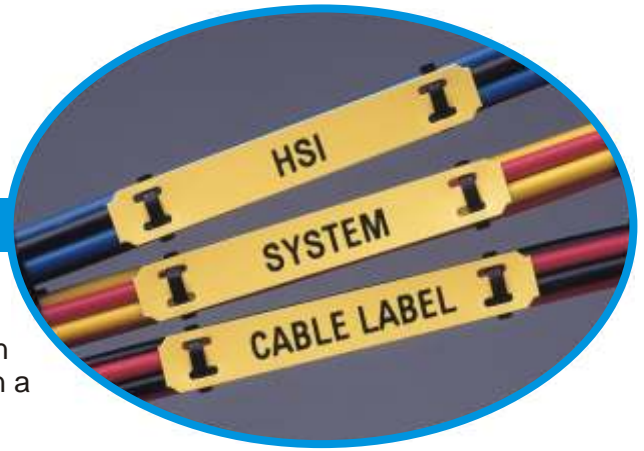


Standard Carrier Strips for K-Type Markers

Marker Size	Capacity	Packed	Order Code
65	7 digits	500	1132
65	12 digits	500	1131
65	18 digits	250	1130

Universal Carrier Strips for K-Type Markers (Flag Type)

65	12 digits	100	1133
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HLX Cable Markers

HLX cable markers are made from zero halogen, low smoke, low toxicity cross-linked, UV stabilised polyolefin sheet, formed into punched organised cable markers on a paper carrier.

They are used for identification of cables and wire bundles by computer-based printing onto the markers. Markers are attached using cable ties. HLX markers are ideal for applications where limited fire hazard characteristics are critical.

Temperature Rating

Operating temperature range -30°C to +105°C -22°F to +221°F



Specifications/approvals

Tyco	RW2523
Military	SAE AS81531 4.6.2 MIL-STD-202F Method 2 15J
Industry	UI224 (clause 14) BS 4G 198 Part 3

Printer Information

Tyco Printer	T312M
Tyco Ribbon	1910-RIBBON-4T300

Order Code	Marker Dimensions mm (W X H)	Printable Area mm (W X H)	Pack Size
HLX104**1TS050B	70.00 x 10.40	50.00 x 10.40	1000
HLX104**1TS070B	90.00 x 10.40	70.00 x 10.40	1000
HLX150**1TS050B	70.00 x 15.00	50.00 x 15.00	500
HLX150**1TS070B	90.00 x 15.00	70.00 x 15.00	500
HLX203**1TS050B	70.00 x 20.30	50.00 x 20.30	500
HLX203**1TS070B	90.00 x 20.30	70.00 x 20.30	500
HLX253**1TS050B	70.00 x 25.30	50.00 x 25.30	250
HLX253**1TS070B	90.00 x 25.30	70.00 x 25.30	250

** Denotes Colour Options Below

WE = White
YW = Yellow



RPS 3:1 Heat Shrink Sleeves

RPS markers are heat shrinkable marking sleeves for wire and cable identification. When RPS is printed with Tyco recommended printers and ribbons, the marks remain legible, without any post printing process, even when exposed to abrasion, aggressive cleaning solvents and industrial fluids.

RPS markers are designed to meet the requirements of commercial and industrial customers.

Temperature Rating

Operating temperature range	-30°C to +105°C	-22°F to +221°F
Min. recovery temperature	+120°C	+248°F
Max. storage temperature	+40°C	+104°F

Specifications/approvals

Tyco	RW2510
Military	SAE AS81531 4.6.2 MIL-STD-202F Method 2 15J
Industry	UL Recognised - standard 224(E35586) CSA Certified (31929)

Printer Information

Tyco Printer	T312M T208M
Tyco Ribbon	TMS-RJS-RIBBON-4RPSCE (T312M) TMS-101-RIBBON-4RPSCE (T208M)

Order Code	Inside Diameter (mm)		Recommended Use Range (mm)	Pack Size
	As Supplied	After Recovery		
RPS-1K-22-18/2.0-*	3.18	1.07	1.17-2.66	1000
RPS-1K-18-12/2.0-*	4.75	1.57	1.75-4.06	1000
RPS-1K-16-10/2.0-*	6.35	2.11	2.31-5.46	1000
RPS-1K-8-4/2.0-*	9.53	3.18	3.47-8.12	1000
RPS-1K-10-2/2.0-*	12.70	4.22	4.64-10.79	1000
RPS-1K-6-250/2.0-*	19.05	6.35	6.99-16.25	1000
RPS-1K-1-400/2.0-*	25.40	8.46	9.29-21.59	1000
RPS-1K-400-1000/2.0-*	38.10	19.05	20.95-33.02	1000

* Denotes Colour Options Below

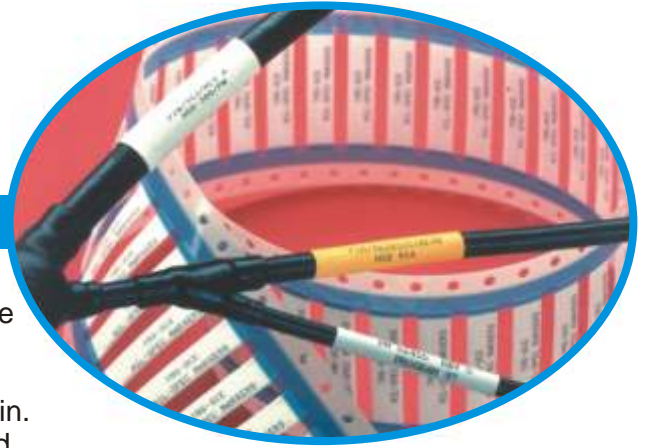
9 = White
4 = Yellow

Smaller and larger pack sizes are also available. Please contact us for further information.
Standard sleeve length: 50mm
Perforated score options: S1 for 25mm, S2 for 17mm or S3 for 12.5mm

TMS-SCE Heat Shrink Sleeves

TMS-SCE marker sleeves are designed to meet the wire and cable marking needs of manufacturers with performance requirements. Made from durable, flame retardant, radiation crosslinked heat-shrinkable polyolefin. 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-202F both before and after shrinking.



Temperature Rating

Operating temperature range	-55°C to +135°C	-67°F to +275°F
Min. recovery temperature	+85°C	+185°F
Max. storage temperature	+40°C	+104°F

Specifications/approvals

Tyco	RW2511
Military	SA-AMS-DTL-23053/5 classes 1 & 3 SAE AS81531 4.6.2, MIL-STD-202F 215J
Industry	UL Recognised - St'd 224, file E35586 CSA Certified - File 31929

Printer Information

Tyco Printer	T312M T208M
Tyco Ribbon	TMS-RJS-RIBBON-4RPSCE (T312M) TMS-101-RIBBON-4RPSCE (T208M)

Order Code	Inside Diameter (mm)		Recommended Use Range (mm)	Pack Size
	As Supplied	After Recovery		
TMS-SCE-1K-1/8-2.0-*	3.18	1.07	1.11-2.66	1000
TMS-SCE-1K-3/16-2.0-*	4.75	1.57	1.75-4.06	1000
TMS-SCE-1K-1/4-2.0-*	6.35	2.11	2.31-5.46	1000
TMS-SCE-1K-3/8-2.0-*	9.53	3.18	3.47-8.12	1000
TMS-SCE-1K-1/2-2.0-*	12.70	4.22	4.64-10.79	1000
TMS-SCE-1K-3/4-2.0-*	19.05	6.35	6.99-16.25	1000
TMS-SCE-1K-1-2.0-*	25.40	8.46	9.29-21.59	1000
TMS-SCE-1K-1-1/2-2.0-*	38.10	19.05	20.95-33.02	1000

* Denotes Colour Options Below
9 = White
4 = Yellow

Smaller and larger pack sizes are also available. Please contact us for further information.
Standard sleeve length: 50mm
Perforated score options: S1 for 25mm, S2 for 17mm or S3 for 12.5mm.



HX-SCE Heat Shrink Sleeves

Thin wall, zero halogen, low smoke, low toxicity, radiation cross-linked, UV stabilised polyolefin heat shrinkable tubing assembled as cut sleeves organised in a ladder format.

Ideal for applications where limited fire hazard characteristics are critical. The zero halogen material coupled with low smoke and low toxic fume emissions make this product ideal for use in enclosed spaces such as mass transit, marine and industrial installations.

Temperature Rating

Operating temperature range	-30°C to +105°C	-22°F to +221°F
Min. recovery temperature	+135°C	+275°F
Max. storage temperature	+40°C	+104°F



Specifications/approvals

Tyco	RW2072
Military	SAE AS81531 4.6.2 MIL-STD-202F Method 2 15J
Industry	BS 6853(1999) - Vehicle category 1a

Printer Information

Tyco Printer	T312M T212M
Tyco Ribbon	1966-RIBBON (T312M) 1966-RIBBON-T200 (T212M)

Order Code	Sleeve Length	Inside Diameter (mm)		Recommended Use Range (mm)	Pack Size
		As Supplied	After Recovery		
HX-SCE-1K-3.2-50-*	50mm	3.20	1.58	1.75-2.66	1000
HX-SCE-1K-3.2-50-S1-*	25mm	3.20	1.58	1.75-2.66	2000
HX-SCE-1K-4.8-50-*	50mm	4.80	2.36	2.54-4.06	1000
HX-SCE-1K-4.8-50-S1-*	25mm	4.80	2.36	2.54-4.06	2000
HX-SCE-1K-6.4-50-*	50mm	6.40	3.18	3.81-5.46	1000
HX-SCE-1K-6.4-50-S1-*	25mm	6.40	3.18	3.81-5.46	2000
HX-SCE-1K-9.5-50-*	50mm	9.50	4.75	5.59-8.12	1000
HX-SCE-1K-9.5-50-S1-*	25mm	9.50	4.75	5.59-8.12	2000
HX-SCE-1K-12.7-50-*	50mm	12.70	6.35	6.99-10.79	1000
HX-SCE-1K-12.7-50-S1-*	25mm	12.70	6.35	6.99-10.79	2000
HX-SCE-1K-19.0-50-*	50mm	19.00	9.53	10.16-16.25	1000
HX-SCE-1K-19.0-50-S1-*	25mm	19.00	9.53	10.16-16.25	2000
HX-SCE-1K-25.4-50-*	50mm	25.40	12.70	14.29-21.59	1000
HX-SCE-1K-25.4-50-S1-*	25mm	25.40	12.70	14.29-21.59	2000
HX-SCE-1K-38.1-50-*	50mm	38.10	19.05	20.95-33.02	1000
HX-SCE-1K-38.1-50-S1-*	25mm	38.10	19.05	20.95-33.02	2000

* Denotes Colour Options Below
9 = White
4 = Yellow



D-SCE Heat Shrink Sleeves

D-SCE markers are used to identify wires and cables where exposure to organic, especially oils, is required. D-SCE markers are designed to operate in these conditions at elevated temperatures for extended periods of time, making them ideal in aerospace, rail and construction industries. The D-SCE markers are suitable for use in environments with temperatures of -55°C to $+135^{\circ}\text{C}$, and will provide strain relief, insulation and protection from mechanical abuse. The 3:1 shrink ratio markers are assembled in a ladder format enabling sleeves to be printed on both sides for maximum data and readability.

Temperature Rating

Operating temperature range	-55°C to $+135^{\circ}\text{C}$	-67°F to $+275^{\circ}\text{F}$
Min. recovery temperature	$+135^{\circ}\text{C}$	$+275^{\circ}\text{F}$
Max. storage temperature	$+40^{\circ}\text{C}$	$+104^{\circ}\text{F}$

Specifications/approvals

Tyco	RW2519
Military	SAE AMS-DTL-23053/6 Class 1 SAE AS81531 4.6.2 MIL-STD-202F Method 215J
Industry	NF F00 608 Category A & H

Printer Information

Tyco Printer	T312M T208M
Tyco Ribbon	1950-RIBBON-4T300 (T312M) TMS-101-RIBBON-4DSCE (T208M)

Order Code	Inside Diameter (mm)		Recommended Use Range (mm)	Pack Size
	As Supplied	After Recovery		
D-SCE-1K-3.2-50-*	3.18	1.07	1.11-2.66	1000
D-SCE-1K-4.8-50-*	4.75	1.57	1.75-4.06	1000
D-SCE-1K-6.4-50-*	6.35	2.11	2.31-5.46	1000
D-SCE-1K-9.5-50-*	9.53	3.18	3.47-8.12	1000
D-SCE-1K-12-50-*	12.70	4.22	4.64-10.79	1000
D-SCE-1K-18-50-*	19.05	6.35	6.99-16.25	1000
D-SCE-1K-25-50-*	25.40	8.46	9.29-21.59	1000
D-SCE-1K-38-50-*	38.10	19.05	20.95-33.02	1000

* Denotes Colour Options Below

9 = White
4 = Yellow

Smaller and larger pack sizes are also available. Please contact us for further information.
Standard sleeve length: 50mm
Perforated score options: S1 for 25mm, S2 for 17mm or S3 for 12.5mm



TTP Continuous Polyester

The system is designed for applications that require a high durability label with all the features of a “silk-screened” label, only without the cost, time and inflexibility involved in obtaining a silk screened product. The product utilizes high performance polyester with permanent acrylic adhesive. It is thermal transfer printable with all the capabilities of graphics, barcodes and logos. The product is available in several colours although white, clear are metalised silver are available as standard. Typical applications include panel labels, cable trunking and tray labelling, fascias, decals and rating plates. Typical industry use includes aerospace, defence, electronics and infrastructure.

Temperature Rating

Operating temperature range
 Clear -40°C to +125°C -40°F to +257°F
 White, metalised & colours -29°C to +150°C -20°F to +302°F

Specifications/approvals

Military MIL-P-38477A (Salt spray)
 A-A-59485 (Accelerated weather resistance and salt spray)
 Industry GAT 100BB

Printer Information

Tyco Printer T208M
 T312M
 Tyco Ribbon 1330-3300-101TT (T208M)
 1330-3300-10 (T312M)

Order Code	Label Width mm	Roll Length metres	Pack Size
TTP200**10	50.80	30.48	1 roll continuous
TTP300**10	76.20	30.48	1 roll continuous
TTP400**10	101.60	30.48	1 roll continuous
TTP600**10	152.40	30.48	1 roll continuous

** Denotes Colour Options Below

Colour Options

Standard	Clear	White	Silver			
Code	CL	WE	MP			
Non Standard	Red	Green	Blue	Orange	Black	Yellow
Code	RD	GN	BE	OE	BK	YW



Self-Laminating Labels

Thermal transfer printable, clear vinyl film with a permanent acrylic adhesive, supplied with a white printable area, which is over-laminated upon application with the clear portion of the label. The “self-laminating” feature protects the printed area from exposure to oil, solvents, water and abrasion. Self laminating labels offer excellent conformability to round, irregular or flexible surfaces. UL and CSA Listed.

Temperature Rating

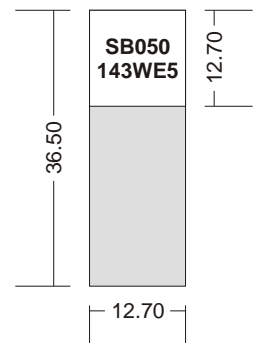
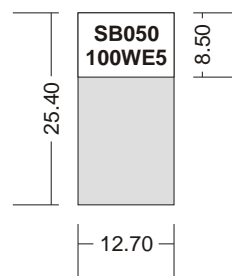
Operating temperature range -54°C to +82°C -65°F to +180°F

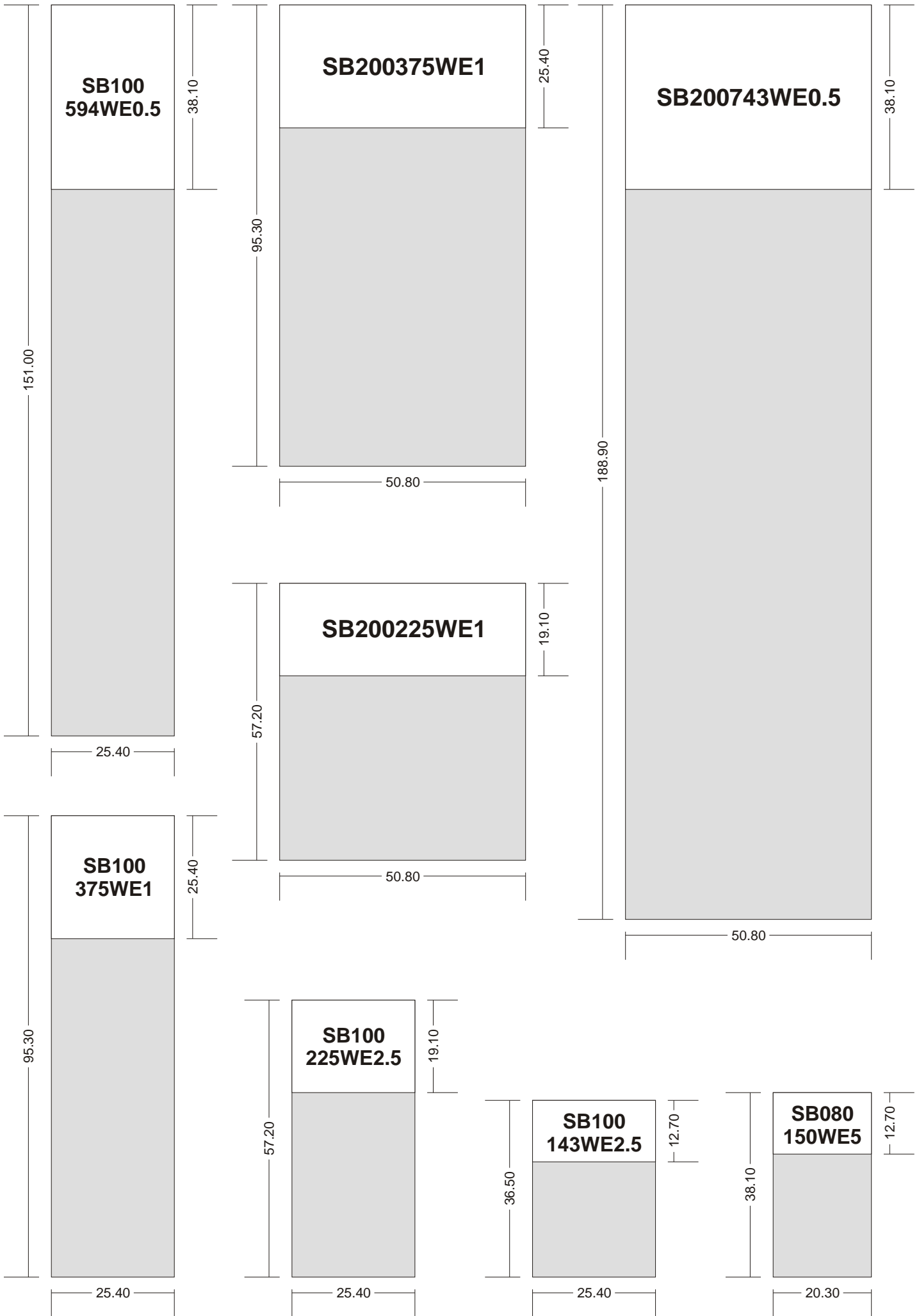
Printer Information

Tyco Printer T312M
T208M
Tyco Ribbon 1330-3300-10 (T312M)
TMS-101-RIBBON-4RPSCE (T208M)

Order Code	Marker Dimensions mm (W X H)	Printable Area mm (W X H)	Pack Size
SB050100WE5-T200	12.70 x 25.40	12.70 x 8.50	5000
SB050143WE5-T200	12.70 x 36.50	12.70 x 12.70	5000
SB080150WE5-T200	20.30 x 38.10	20.30 x 12.70	5000
SB100143WE2.5-T200	25.40 x 36.50	25.40 x 12.70	2500
SB100225WE2.5-T200	25.40 x 57.20	25.40 x 19.10	2500
SB100375WE1-T200	25.40 x 95.30	25.40 x 25.40	1000
SB100594WE0.5-T200	25.40 x 151.00	25.40 x 38.10	500
SB200225WE1-T200	50.80 x 57.20	50.80 x 19.10	1000
SB200375WE1-T200	50.80 x 95.30	50.80 x 25.40	1000
SB200743WE0.5-T200	50.80 x 188.90	50.80 x 38.10	500

- Protects printed information from chemicals and frequent handling
- Designed to withstand exposure to oil, solvents and water
- Can also be flagged around a wire rather than wrapped







High Tack Polyester Labels

Thermal transfer printable white polyester film with a high tack permanent acrylic adhesive. Designed for application to rough surfaces or where increased adhesion is required. Is also excellent for bar-coding, electronic PCB, component and general labelling applications. The high tack adhesion will bond to the most demanding surfaces, including textured and contoured surfaces. UL Listed and CSA Certified.

Temperature Rating

Operating temperature range -40°C to +150°C -40°F to +302°F

Printer Information

Tyco Printer T312M
T208M
Tyco Ribbon 1330-0607-10 (T312M)
1330-3300-101TT (T208M)

Order Code	Labels Across	Dimensions mm (W x H)	Pack Size
HW-095095-10-9	7	9.5 x 9.5	10000
HW-127032-10-9	5	12.7 x 3.2	10000
HW-127127-10-9	5	12.7 x 12.7	10000
HW-171171-10-9	5	17.1 x 17.1	10000
HW-191114-15-9	3	19.1 x 11.4	15000
HW-191762-5-9	3	19.1 x 76.2	5000
HW-254045-10-9	3	25.4 x 4.6	10000
HW-254064-10-9	3	25.4 x 6.4	10000
HW-254097-10-9	3	25.4 X 9.7	10000
HW-254127-10-9	3	25.4 x 12.7	10000
HW-254254-10-9	3	25.4 x 25.4	10000
HW-318064-10-9	1	31.8 x 6.4	10000
HW-318097-10-9	1	31.8 x 9.7	10000
HW-445102-5-9	1	44.5 x 10.2	5000
HW-445445-2-9	1	44.5 x 44.5	2000
HW-508127-10-9	1	50.8 x 12.7	10000
HW-508254-5-9	1	50.8 x 25.4	5000
HW-508508-3-9	1	50.8 x 50.8	3000
HW-762381-2.5-9	1	76.2 x 38.1	2500
HW-762508-2.5-9	1	76.2 x 50.8	2500
HW-762127-1-9	1	76.2 x 127.0	1000
HW-101508-2.5-9	1	101.6 x 50.8	2500
HW-101762-1.8-9	1	101.6 x 76.2	1800

Bespoke Label Service
We can supply labels to meet your specific size requirements
Call us now!

High Tack is also available in a continuous roll format and can be supplied in many widths

Also available x-stock are media reel holders to ensure the product is fed correctly to your printer

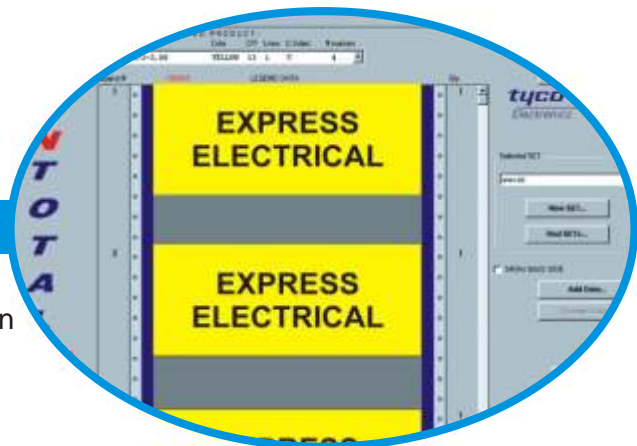


Printers

The T200 range of printers are portable/desktop thermal transfer printers offering an economical option for customers who want to take advantage of thermal transfer printing technology. Their small, lightweight design makes them ideal for applications requiring portability or in environments where space is limited.

The T300 range of printers are of a rugged and durable all metal construction making them suitable for demanding industrial and commercial environments. The enhanced memory and 32-bit processor provide fast data processing and print speeds.

Both printer ranges provide crisp, high quality text, bar codes and graphic images and can be used to print heat shrink sleeves, cable markers and labelling products.



Software

Wintotal software is a powerful 32bit label/marker design package that makes wire marker printing simple in an industrial environment. Running in a familiar Windows layout, the package is pre-loaded with all the Tyco identification products to facilitate marker design. The software features a highly graphical user interface to simplify operator training and minimise errors.

Wintotal software supports all common identification needs including:

- **Manual Printing**
- **Automatic printing from spreadsheets and databases**
- **Incremental alpha and numeric fields**
- **Double-sided marker printing**
- **WYSIWYG screen display**
- **Align text left, right, justified or centre**
- **Built in printer drivers and font support**
- **Windows true type fonts**
- **Set and batch printing capabilities**
- **Local or network printer support**
- **User defined product options**

SERVICE & SUPPORT

Every identification system purchased comes complete with FREE training of your relevant personnel, continued system support and maintenance

Pre-Printing & Kitting Service



There are numerous situations where pre-produced sets of identification offer benefits to the user. The need to identify items is present across all industries and indeed essential in many. Applications are as wide and varied, as the options we can offer in pre-printed sets. Items within a set can be produced in the same format, or with a mix of products and materials. Flexibility is total. This allows you, the customer, the freedom to access our full product offering without the capital expenditure required to invest if you were to produce sets on-site.

Whatever your specific requirements we can offer advice and assistance, from design stage through to scheduling and delivery of kits. This service ensures you receive the most suitable set of identification products, tailored precisely to the application.

Most customers now have the relevant identification data contained within an electronic database, be it a cable schedule or CAD drawing. In most cases we can access this data which reduces manual input of data, maintains continuity of data and reduces lead times of supply.

Presentation and pickability of any pre-produced kits is the key factor to this service. All kits shall be supplied and presented to you in an agreeable format, labelled, catalogued or bagged, to ensure fast and efficient installation by the end user.

Call us today to discuss your precise requirements or if you would like assistance.

Contact Us

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