

Premium Cable Ties with Steel Locking Barb  
Characteristics..... 2  
Product Reference Structure for Standard Ties.....3  
Premium Cable Ties with Steel Locking Barb  
Premium Cable Ties with Steel Locking Barb  
Characteristics..... 4  
Standard Ties.....5  
Premium Cable Ties with Steel Locking Barb  
Premium Cable Ties with Steel Locking Barb  
Standard Ties.....6  
Premium Cable Ties with Steel Locking Barb  
Standard Ties.....7  
Premium Cable Ties with Steel Locking Barb  
Identification Ties..... 8  
Premium Cable Ties with Steel Locking Barb  
Panduit PLT Series.....9

### Special features of the Ty-Rap® programme

The single most distinguishing feature of the Ty-Rap® cable ties from Thomas & Betts is the stainless steel locking barb, firmly anchored inside the tie head (Fig. 1).

It is made from corrosion-proof, antimagnetic steel (Marine Grade Type 316).

This guarantees a strong and durable locking of the tie even under the most adverse conditions - humidity, heat, cold, etc. and is also proof against vibration and external shock.

When applying ties with Thomas & Betts tooling, the excess end of the tie is automatically cut off and the slight over cut retracts into the tie, so that there is no risk of injury from protruding sharp edges. (Fig. 3)

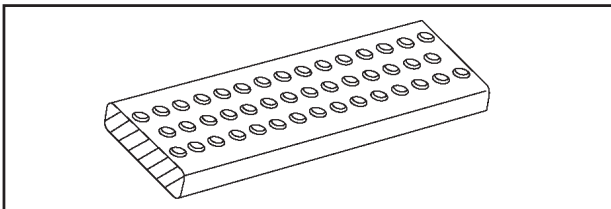
The low-profile design of the head allows secure tying in tight spaces.

The edges of the head are also rounded off to offer maximum protection from injury.

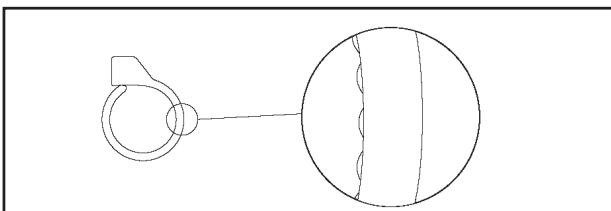
The transition from the strap to the head is gradual. This protects the material against breaking at this most critical point.

The rounded edges of the head and strap ensure the comfortable handling of the ties. Once the tie is installed, the rounded edges protect the cable from damage.

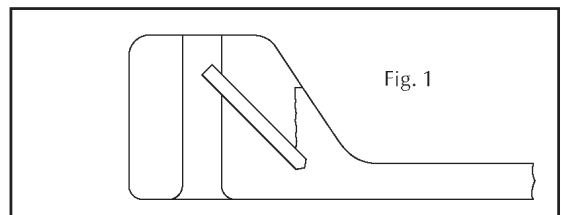
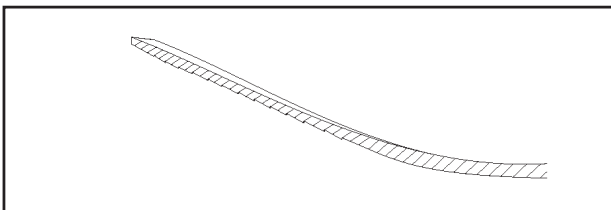
The steel locking barb ensures a strong, reliable and long lasting fastening.



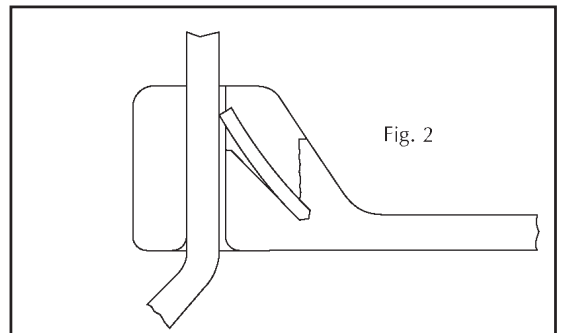
The ribbed and stippled surface prevents the tie from slipping on the bundle under vibration conditions.



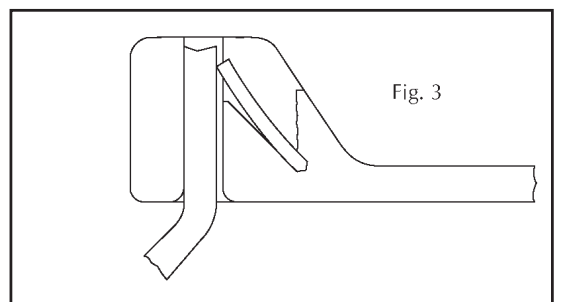
Angled tail for fast and easy insertion into the locking head. The angle and the surface of the tail are ideally suited for gripping and inserting.



Steel locking barb anchored in tie head



Secure lock in any position

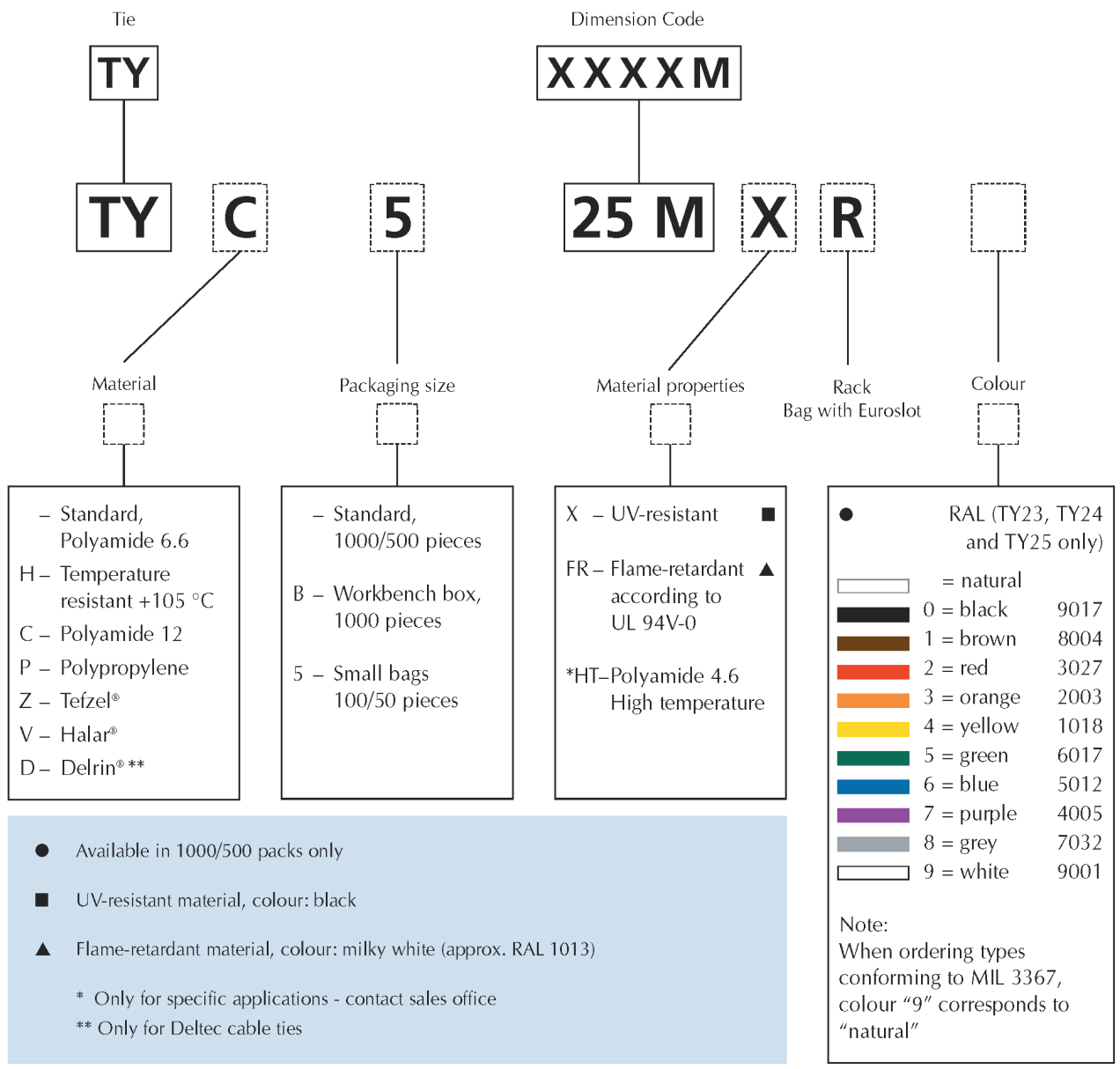


Retracted strap end after application



To the Standard Product Reference you can add special order codes for material, packaging size, material properties and colours.

Example:



## Premium Cable Ties with Steel Locking Barb Characteristics

### Other advantages of the Ty-Rap® cable ties

- MIL-specified tie and application tools
- VG-approved types
- UL-approved (UL File No. E 49405)
- Approved by Germanischer Lloyd and Lloyd's Register of Shipping
- 6 different materials (for a total of 9 different grades) and 3 different flammability ratings: UL 94 V-2 / UL 94 V-0 / UL 94 HB
- Wide choice of colours
- Different tool systems to suit all production volumes
- 4 different packaging sizes to optimally suit your production requirements
- Recyclable packaging for a better contribution to the environment

### Packaging sizes

#### Standard packaging

1000 pieces in recyclable polythene bags (for cable ties with sizes from 2.4 mm to 4.8 mm wide)

500 pieces in recyclable polythene bags (for cable ties with sizes of 7.0 mm and 7.6 mm wide)

#### Product Ref. information

No addition to the Product Ref. for standard packaging

#### Workbench boxes

An attractive packaging option for high volume manual assembly: 1000 pieces in a workbench box - easy to reach, hence timesaving. This user-friendly packaging allows fast working without problems or losses.

The following tie types are available:

TYB23M / TYB2315M / TYB24M /  
TYB25M / TYB23MX / TYB2315MX/  
TYB24MX / TYB25MX + colours.

#### Product Ref. information

Add "B" to the Product Ref.

Example: TYB23M

= 1000 pieces in workbench box.



#### Small bags

This option is attractive for small series production: 100 / 50 pieces in a polythene bag ideal for display and point-of sale promotion (Rack).

100 pieces (Sizes from 2.4 mm to 4.8 mm wide)

50 pieces (Size 7.0 mm and 7.6 mm wide)

#### Product Ref. information

Add "5" and "R" to the Product Ref.

Example: TY523MR

= TY23M in 100 pieces bag

with Euroslot.



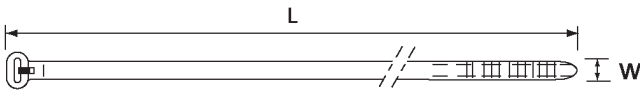
To cover the most demanding applications, the standard Ty-Rap® cable ties are available in:

- Several lengths
- 6 typical widths, with a tensile strength up to 780N
- 6 different materials, with a total of 9 different grades
- Several colours and packaging sizes

### Approvals



E49405



### Technical Information

Material	Polyamide 6.6
Temperature range	-40°C to +85°C
Colour	Natural
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free

### Ordering Information: Standard Polyamide 6.6 cable ties

PRODUCT REF.	MIL SPEC.	LENGTH	WIDTH	THICKNESS	BUNDLE DIAMETER FROM ... TO	MINIMUM TENSILE	QUANTITY	TOOLING
		L [mm]	W [mm]	[mm]		STRENGTH [N]	[pieces]	
TY23M / TYB23M	MS-3367-4	92	2.4	1.0	2 - 16	80	1000	
TYB2315M	-	178	2.4	1.0	2 - 32	80	1000	
TY232M	-	203	2.4	1.0	2 - 50	80	1000	ERG299
TY234M	-	356	2.4	1.0	2 - 102	80	1000	WT193A
TY24M / TYB24M	MS-3367-5	140	3.6	1.1	2 - 29	180	1000	TR227
TY242M	-	208	3.6	1.1	2 - 50	180	1000	
TY26M	-	284	3.6	1.1	2 - 76	130	1000	
TY244M	-	368	3.6	1.1	2 - 103	130	1000	
TY25M / TYB25M	MS-3367-1	186	4.8	1.1	3.5 - 45	220	1000	ERG299, ERG297
TY253M	MS-3367-7	290	4.8	1.1	3.5 - 78	220	1000	WT193A
TY28M	MS-3367-2	360	4.8	1.1	3.5 - 102	220	1000	TR227
TY271M	-	150	7.6	1.5	6 - 31	540	500	
TY272M	-	222	7.6	1.6	6 - 50	540	500	
TY27M	MS-3367-3	340	7.0	1.6	6 - 90	540	500	L-500-EU
TY275M	-	457	7.0	1.6	6 - 127	540	500	ERG297
TY277M	-	617	7.0	1.6	6 - 177	540	500	
TY29M	MS-3367-6	771	7.6	1.6	6 - 229	540	500	
TY53510M	-	889	8.1	1.7	to 254	780	50	WT3D
TY54513M	-	1143	8.1	1.7	to 330	780	50	L-500-EU



## Approvals

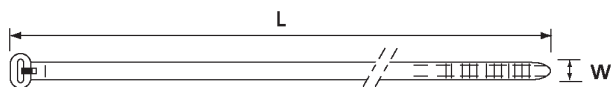


E49405



## Technical Information

Material	Polyamide 6.6
Temperature range	-40°C to +85°C
Colour	Black
Flammability rating	UL 94 V-2
Other properties	UV-resistant, Halogen free, Silicone free



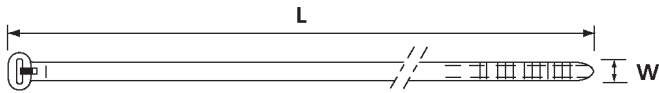
## Ordering Information: Polyamide 6.6 UV-stabilised cable ties

PRODUCT REF.	MIL SPEC.	LENGTH	WIDTH	THICKNESS	BUNDLE DIAMETER	MINIMUM TENSILE	QUANTITY	TOOLING
		L	W					
		[mm]	[mm]	[mm]	FROM ... TO	STRENGTH	[pieces]	
TY23MX / TYB23MX	MS-3367-4	92	2.4	1.0	2 - 16	80	1000	
TYB2315MX	-	178	2.4	1.0	2 - 32	80	1000	
TY232MX	-	203	2.4	1.0	2 - 50	80	1000	ERG299
TY234MX	-	356	2.4	1.0	2 - 102	80	1000	WT193A
TY24MX / TYB24MX	MS-3367-5	140	3.6	1.1	2 - 29	130	1000	TR227
TY242MX	-	208	3.6	1.1	2 - 50	130	1000	
TY26MX	-	284	3.6	1.1	2 - 76	130	1000	
TY244MX	-	368	3.6	1.1	2 - 103	130	1000	
TY25MX / TYB25MX	MS-3367-1	186	4.8	1.1	3.5 - 45	220	1000	ERG297
TY253MX	MS-3367-7	290	4.8	1.1	3.5 - 78	220	1000	ERG299
TY28MX	MS-3367-2	360	4.8	1.1	3.5 - 102	220	1000	WT193A, TR227
TY271MX	-	150	7.6	1.5	6 - 31	540	500	
TY272MX	-	222	7.6	1.6	6 - 50	540	500	
TY27MX	MS-3367-3	340	7.0	1.6	6 - 90	540	500	L-500-EU
TY275MX	-	457	7.0	1.6	6 - 127	540	500	ERG297
TY277MX	-	617	7.0	1.6	6 - 177	540	500	
TY29MX	MS-3367-6	771	7.6	1.6	6 - 229	540	500	
TY53510MX	-	889	8.1	1.7	to 254	780	50	WT3D
TY54513MX	-	1143	8.1	1.7	to 330	780	50	L-500-EU

Approvals



E49405



Technical Information

Material	Tefzel <sup>®</sup> **
Temperature range	-46°C to +150°C
Colour	Aquamarine
Flammability rating	UL 94 V-0
Other properties	UV-resistant, Halogen free, Silicone free, inert to most solvents and chemicals, hydrolytically stable, radiation resistant. Non-outgassing properties for zero gravity applications.

Ordering Information: Tefzel<sup>®</sup>\*\* cable ties

PRODUCT REF.	LENGTH	WIDTH	THICKNESS	BUNDLE DIAMETER	MINIMUM TENSILE	QUANTITY	TOOLING
	L	W		FROM ... TO	STRENGTH		
	[mm]	[mm]	[mm]	[mm]	[N]	[pieces]	
TYZ23M*	92	2.4	1.0	2 - 16	80	1000	WT193A, TR227
TYZ25M	186	4.8	1.1	3.5 - 45	220	1000	ERG299
TYZ28M	360	4.8	1.1	3.5 - 102	220	1000	ERG297***
TYZ27M	340	7.0	1.6	6 - 90	540	500	L-500-EU, ERG297

\* Product Ref. TYZ23M is UL listed (E49405)

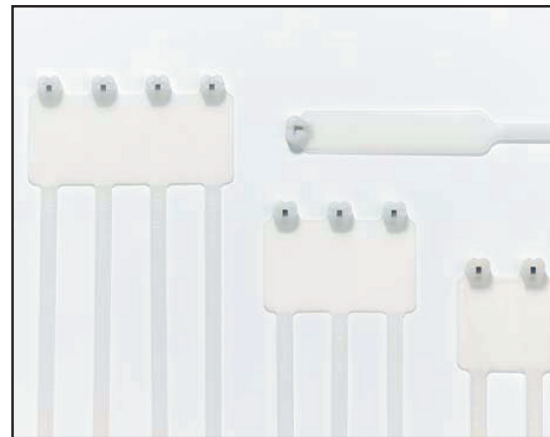
\*\* Tefzel is a registered trademark of DuPont de Nemours

\*\*\* ERG297 not to be used on TYZ23M

Note. For further information or technical assistance, please contact Clarendon.

## Premium Cable Ties with Steel Locking Barb Identification Ties

- Identification ties with incorporated label for durable marking and tying
- Label forms onto the bundle
- Mil-specified types with up to 3 straps
- Trouble free installation
- Labelling of bundles up to 102 mm diameter
- Simple marking on the roughened writing surface using the special marking pen WT163M-1 / WT163M-3 (black or red)
- All edges are rounded and surfaces smoothed to make installation easier



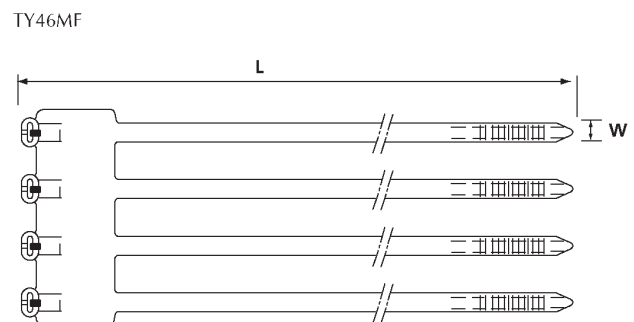
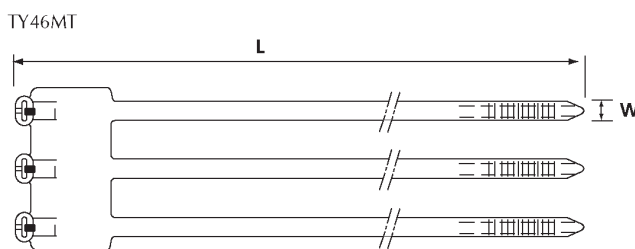
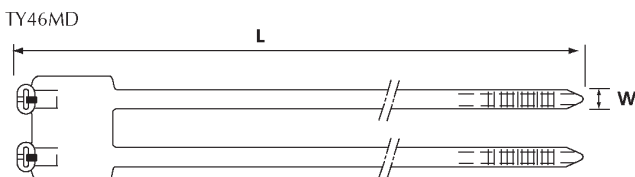
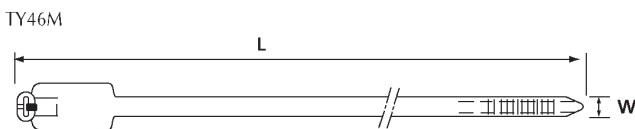
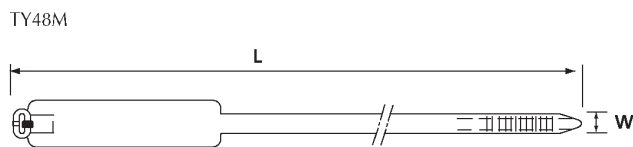
### Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-40°C to +85°C
Colour	Natural
Approvals	MIL: MS-3368 -1, -2, -3, -4
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free

### Approvals



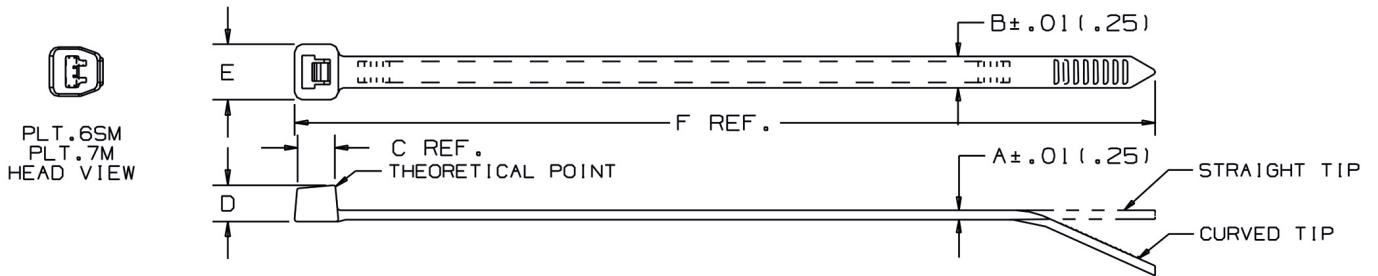
E49405



### Ordering Information

PRODUCT REF.	MIL SPEC.	LENGTH L [mm]	WIDTH W [mm]	THICKNESS [mm]	BUNDLE DIAMETER FROM ... TO [mm]	MINIMUM TENSILE STRENGTH [N]	LABEL DIMENSIONS [mm]	QUANTITY [pieces]	TOOLING
TY48M	MS-3368-2	360	4.8	1.1	19 - 102	220	13.1 x 57.2	1000	WT193A
TY46M	MS-3368-1	184	4.8	1.1	9.5 - 45	220	13.1 x 27.0	1000	ERG299
TY46MD	MS-3368-3	184	4.8	1.1	9.5 - 45	220 x 2	29.7 x 27.0	500	ERG297
TY46MT	MS-3368-4	184	4.8	1.1	9.5 - 45	220 x 3	46.0 x 27.0	500	TR227
TY46MF	-	184	4.8	1.1	9.5 - 45	220 x 4	63.1 x 27.0	250	





PANDUIT PART NO. *	BUNDLE DIA.		A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in (mm)	MIN. LOOP TENSILE lbs. (N)	CROSS SECTION	TIP STYLE	WEIGHT lbs./100 pcs. (g)
	MIN. (mm)	MAX. (mm)										
PLT.6SM	.01 (.3)	.6 (15)	.030 (.76)	.070 (1.8)	.124 (3.1)	.095 (2.4)	.125 (3.2)	2.8 (71)	8 (36)	SUB-MINIATURE	CURVED	.02 (9.0)
PLT.7M	.03 (.8)	.68 (17)	.032 (.8)	.090 (2.3)	.148 (3.8)	.115 (2.9)	.180 (4.6)	3.1 (79)	18 (80)	MINIATURE	CURVED	.04 (16)
PLT1M	.06 (1.5)	.87 (22)	.043 (1.1)	.098 (2.5)	.169 (4.3)	.154 (3.9)	.180 (4.6)	3.9 (99)	18 (80)	MINIATURE	CURVED	.07 (32)
PLT1.5M	.06 (1.5)	1.25 (32)	.043 (1.1)	.098 (2.5)	.169 (4.3)	.154 (3.9)	.180 (4.6)	5.6 (142)	18 (80)	MINIATURE	CURVED	.10 (45)
PLT2M	.06 (1.5)	2.00 (51)	.043 (1.1)	.098 (2.5)	.169 (4.3)	.154 (3.9)	.180 (4.6)	8.0 (203)	18 (80)	MINIATURE	CURVED	.13 (59)
PLT1.5I	.06 (1.5)	1.38 (35)	.045 (1.1)	.142 (3.6)	.206 (5.2)	.180 (4.6)	.240 (6.1)	5.6 (142)	40 (178)	INTERMEDIATE	CURVED	.14 (64)
PLT2I	.06 (1.5)	2.00 (51)	.045 (1.1)	.142 (3.6)	.206 (5.2)	.180 (4.6)	.240 (6.1)	8.0 (203)	40 (178)	INTERMEDIATE	CURVED	.20 (91)
PLT2.5I	.06 (1.5)	2.50 (64)	.052 (1.3)	.145 (3.7)	.220 (5.6)	.180 (4.6)	.260 (6.6)	9.7 (246)	40 (178)	INTERMEDIATE	CURVED	.27 (122)

NOTES:  
 1) RECOGNIZED UNDER THE COMPONENT PROGRAM OF UNDERWRITERS LABORATORIES INC.  
 \*2) SEE [www.panduit.com](http://www.panduit.com) FOR PART NUMBER SUFFIX DESIGNATION FOR PACKAGE SIZE & PART COLOR.

DIMENSIONS IN PARENTHESES ARE IN METRIC UNITS