

Table of Contents—Europa

Overview (Selector Chart)	214, 215
(Catalog Numbering Code)	216
(Introduction)	217
Europa—Tubular Screw Barrier Strips	218-233
8mm [.315] Pitch, 30A, Series TSB230	218-220
10mm [.394] Pitch, 30A, Series TSB500	221-224
10mm [.394] Pitch, Fused Blocks, Series 503Si	225
12mm [.472] Pitch, 40-50A, Series TSB1000	226
12mm [.472] Pitch, Fused Blocks, Series 1003Si	229
13.5mm [.531] Pitch, 40A, Series TSB1500	230
14.5mm [.571] Pitch, 65A, Series TSB2000	231-233
Accessories	234-237

Europa Selector Chart

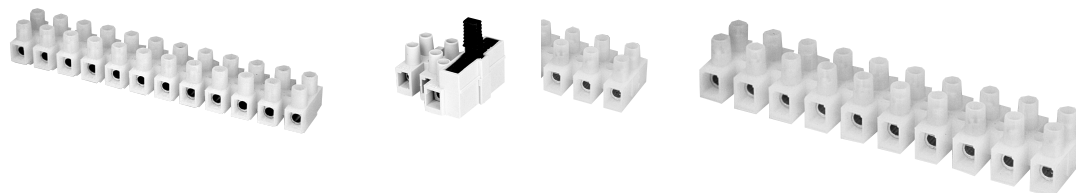
Panel Mounted Modular Blocks



Series	TSB230	TSB230...HT	TSB500	TSB500...HT	TSB500SK	500Si	503Si
Pitch (mm) (in.)	8mm .315"	8mm .315"	10mm .394"	10mm .394"	10mm .394"	10, 12mm .394", .472"	10mm .394"
Circuits	1-12	1-12	1-12	1-12	1-12	1	1-5
Max. Current							
Wire protector	30A	30A	30A	30A	30A	—	10A
Tunnel connection	30A	—	40A	—	30A	10A	10A
Max. Voltage	250V	250V	250V	250V	600V	250V	250V
Wire Range (AWG)							
Wire protector	12-26	12-26	10-24	12-24	12-24	—	12-22
Tunnel connection	12-24	—	10-22	—	10-22	12-22	12-22
Flammability	UL94V-2	UL94V-0	UL94V-2	UL94V-0	UL94V-2	UL94V-2	UL94V-2
Max. Temp.	100° C	150° C	100° C	150° C	100° C	100° C	100° C
Page	218, 219	220	221	223	224	234	225

Europa Selector Chart (Continued)

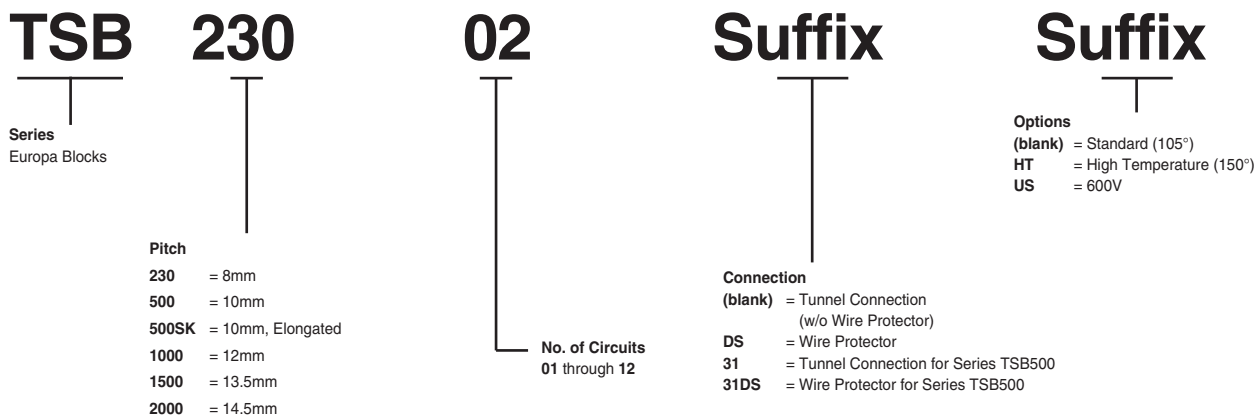
Panel Mounted Modular Blocks



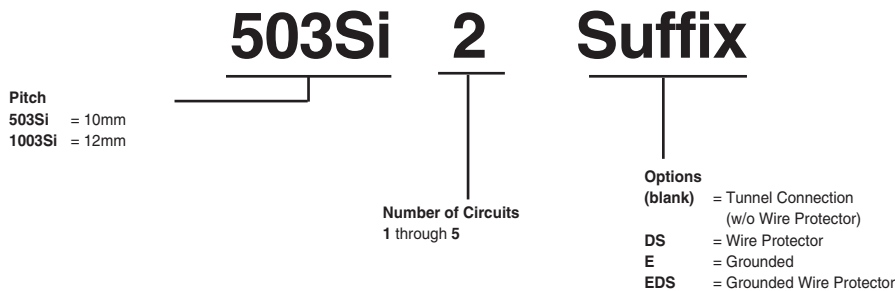
Series	TSB1000	TSB1000...HT	1003Si	TSB1500	TSB2000	TSB2000...HT	TSB2000...US
Pitch (mm) (in.)	12mm .472"	12mm .472"	7/12mm .275-.472"	13.5mm .532"	14.5mm .571"	14.5mm .571"	14.5mm .571"
Circuits	1-12	1-12	1-5	1-12	1-12	1-12	1-12
Max. Current							
Wire protector	40A	40A	16A	40A	65A	65A	65A
Tunnel connection	40A	—	16A	40A	65A	65A	65A
Max. Voltage	250V	250V	250V	300V	300V	300V	600V
Wire Range (AWG)							
Wire protector	10-22	10-24	10-24	8-18	6-14	6-14	6-14
Tunnel connection	8-22	—	8-22	8-16	6-14	6-14	6-14
Flammability	UL94V-2	UL94V-0	UL94V-2	UL94V-2	UL94V-2	UL94V-0	UL94V-2
Max. Temp.	100° C	150° C	100° C	100° C	100° C	150° C	100° C
Page	226, 227	228	229	230	231	232	233

Catalog Numbering Code

Europa Blocks



Fused Europa Blocks

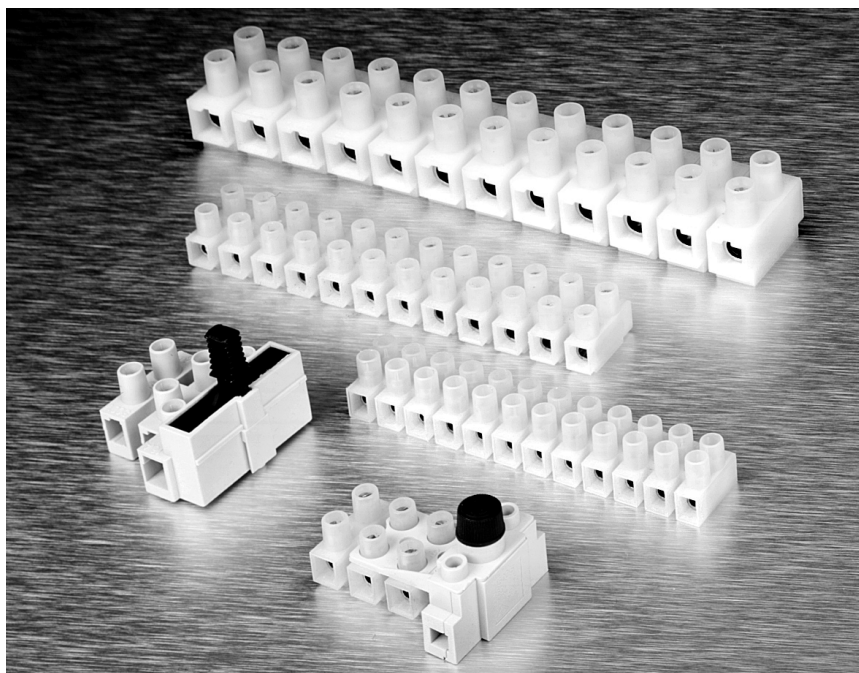


Note: Some catalog number combinations are not valid. Check appropriate catalog pages before ordering.

Europa Blocks

Product Facts

- n **Modular design** — cut into smaller sections without altering electrical properties or order product molded to length. Mounting holes between every circuit.
- n **Tubular contacts** — connect stripped, unterminated solid or stranded wire directly to each contact — no wire lugs needed.
- n **High voltage and current ratings** — rated up to 600 volts and up to 65 amps depending on model and wire size used.
- n **Broad Wire Range** — use wire from #6 to #26 AWG depending on model selected.
- n **Wire protectors** — all models available with wire protectors to virtually eliminate twisting and breakage of stranded wire during connection.
- n **High circuit density** — five models provide from 21 to 38 circuits per foot.
- n **“Dead-front” construction** — both screws and tubular contacts are recessed in housing for safety and to help prevent short circuits.
- n **Captive screws** — zinc with chromate plated steel screws are captive in tin plated brass contacts. They are supplied “backed-out” and ready to wire.
- n **Flammability rating of UL94V-2** is standard. High Temperature versions with UL94V-0 are available.
- n **Wire stop** available on some versions.



Tyco Electronics Corporation offers the most extensive line of Europa products in five pitches:

- n 8mm [.315]
- n 10mm [.394]
- n 12mm [.472]
- n 13.5mm [.531]
- n 14.5mm [.571]

Two connection styles are available. The Wire Protector version supplies a plate to shield the wire from being cut by the screw. The Tunnel connection is the same design, but without the shielding plate – it is ideal for solid wire or where the most economical price is required.

Applications include:

- n Motor Controls
- n Power Supplies
- n Telecom
- n Valve Actuators
- n Spa Controllers
- n Lighting

8mm [.315] Pitch, 30A with Wire Protector—Series TSB230



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

8mm [.315"]

Wire Strip Length—5mm [0.20"]

Min. Wire Pull-Out Force—75lbs.

Recommended Tightening

Torque—5in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—30A

Operating Voltage—250V

Wire Range—12-26 AWG

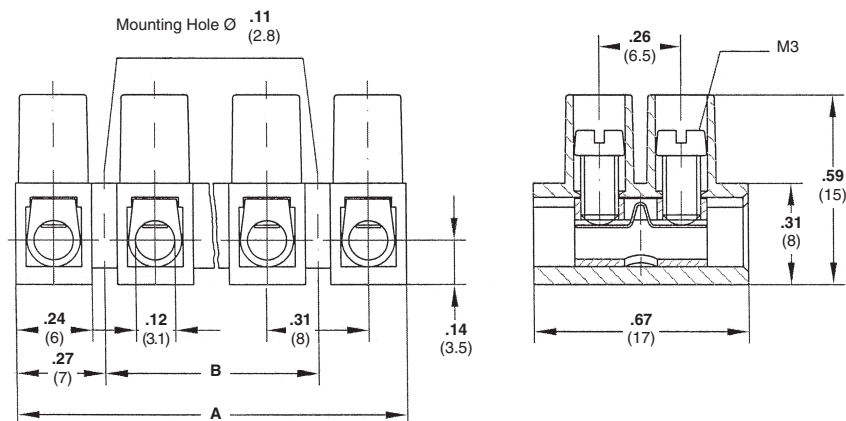
Dielectric Withstand—3000V

Environmental Properties

Continuous Working

Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	6 (.24)	—	1776293-1	TSB230 01DS
2	14 (.55)	—	1776293-2	TSB230 02DS
3	22 (.87)	8 (.31)	1776293-3	TSB230 03DS
4	30 (1.18)	16 (.63)	1776293-4	TSB230 04DS
5	38 (1.50)	24 (.94)	1776293-5	TSB230 05DS
6	46 (1.81)	32 (1.26)	1776293-6	TSB230 06DS
7	54 (2.13)	40 (1.57)	1776293-7	TSB230 07DS
8	62 (2.44)	48 (1.89)	1776293-8	TSB230 08DS
9	70 (2.76)	56 (2.20)	1776293-9	TSB230 09DS
10	78 (3.07)	64 (2.52)	1-1776293-0	TSB230 10DS
11	86 (3.39)	72 (2.83)	1-1776293-1	TSB230 11DS
12	94 (3.70)	80 (3.15)	1-1776293-2	TSB230 12DS

8mm [.315] Pitch, 30A, with Tunnel Connection—Series TSB230



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3

Screw Plating—Zinc with chromate

Mechanical Properties

Pitch (terminal spacing)—

8mm [.315]

Wire Strip Length—5mm [0.20"]

Min. Wire Pull-Out Force—75lbs.

Recommended Tightening

Torque—5in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—30A

Operating Voltage—250V

Wire Range—12-24 AWG

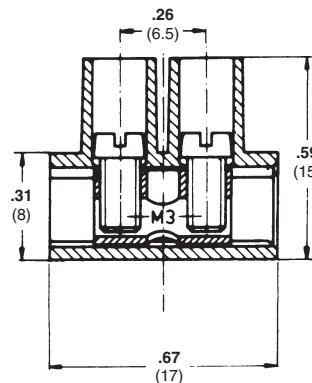
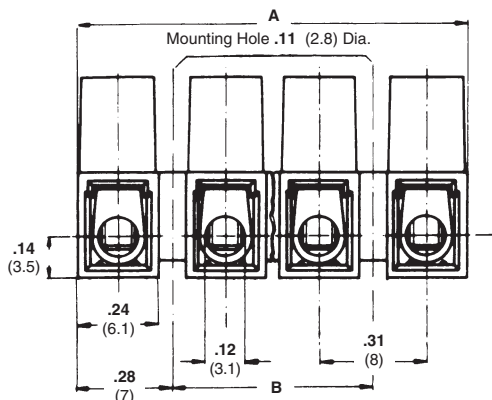
Dielectric Withstand—3000V

Environmental Properties

Continuous Working

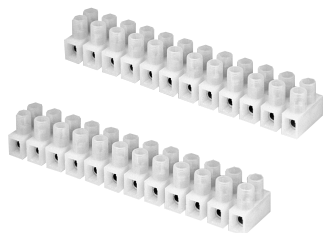
Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Tunnel Connection	
	A	B	Part Number	Catalog Number
1	6 (.24)	—	1776294-1	TSB230 01
2	14 (.55)	—	1776294-2	TSB230 02
3	22 (.87)	8 (.31)	1776294-3	TSB230 03
4	30 (1.18)	16 (.63)	1776294-4	TSB230 04
5	38 (1.50)	24 (.94)	1776294-5	TSB230 05
6	46 (1.81)	32 (1.26)	1776294-6	TSB230 06
7	54 (2.13)	40 (1.57)	1776294-7	TSB230 07
8	62 (2.44)	48 (1.89)	1776294-8	TSB230 08
9	70 (2.76)	56 (2.20)	1776294-9	TSB230 09
10	78 (3.07)	64 (2.52)	1-1776294-0	TSB230 10
11	86 (3.39)	72 (2.83)	1-1776294-1	TSB230 11
12	94 (3.70)	80 (3.15)	1-1776294-2	TSB230 12

8mm [.315] Pitch, 30A, High Temperature—Series TSB230...HT



Material & Finish

Housing Material—Polyamide 6/6

Flammability—UL94V-0

Housing Color—Brown

Tubular Contact—Brass, tin plated

Screw—Steel, M3

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

8mm [.315]

Wire Strip Length—5mm [0.20"]

Min. Wire Pull-Out Force—75lbs.

Recommended Tightening

Torque—5in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—30A

Operating Voltage—250V

Wire Range—12-26 AWG

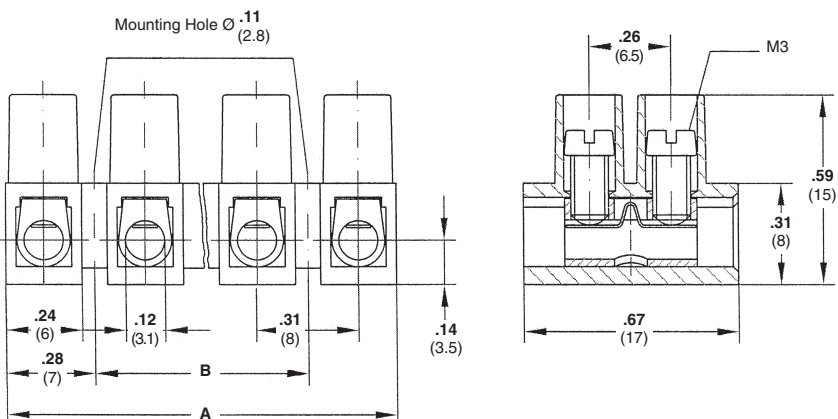
Dielectric Withstand—3000V

Environmental Properties

Continuous Working

Temperature—

-35°C to +150°C [-31°F to +302°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	6 (.24)	—	1776295-1	TSB230 01DS HT
2	14 (.55)	—	1776295-2	TSB230 02DS HT
3	22 (.87)	8 (.31)	1776295-3	TSB230 03DS HT
4	30 (1.18)	16 (.63)	1776295-4	TSB230 04DS HT
5	38 (1.50)	24 (.94)	1776295-5	TSB230 05DS HT
6	46 (1.81)	32 (1.26)	1776295-6	TSB230 06DS HT
7	54 (2.13)	40 (1.57)	1776295-7	TSB230 07DS HT
8	62 (2.44)	48 (1.89)	1776295-8	TSB230 08DS HT
9	70 (2.76)	56 (2.20)	1776295-9	TSB230 09DS HT
10	78 (3.07)	64 (2.52)	1-1776295-0	TSB230 10DS HT
11	86 (3.39)	72 (2.83)	1-1776295-1	TSB230 11DS HT
12	94 (3.70)	80 (3.15)	1-1776295-2	TSB230 12DS HT

Note: Minimum order quantities may apply.

10mm [.394] Pitch, 30A with Wire Protector—Series TSB500



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

10mm [.394]

Wire Strip Length—5mm [0.20"]

Min. Wire Pull-Out Force—75lbs.

Recommended Tightening

Torque—5 in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

UL Maximum Current—30A;

10-22 AWG

CSA Maximum Current—25A;

12-24 AWG

Operating Voltage—250V

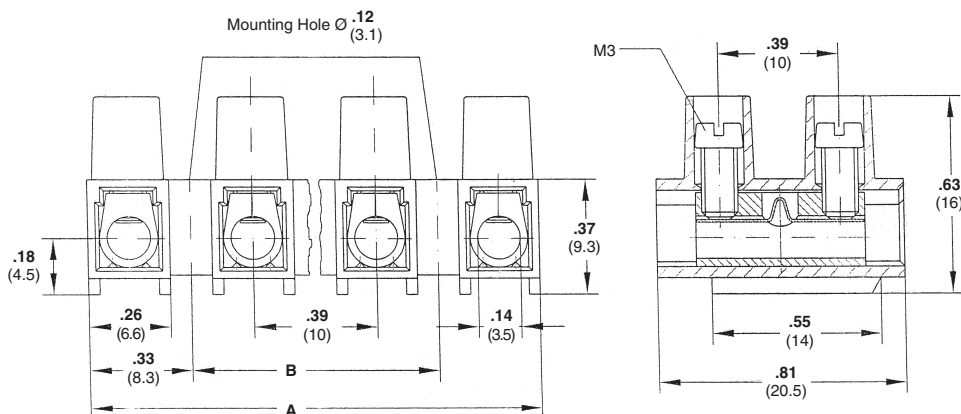
Dielectric Withstand—3500V

Environmental Properties

Continuous Working

Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	6.6 (.26)	—	1776296-1	TSB500 0131DS
2	16.6 (.65)	—	1776296-2	TSB500 0231DS
3	26.6 (1.05)	10 (.39)	1776296-3	TSB500 0331DS
4	36.6 (1.44)	20 (.79)	1776296-4	TSB500 0431DS
5	46.6 (1.83)	30 (1.18)	1776296-5	TSB500 0531DS
6	56.6 (2.23)	40 (1.57)	1776296-6	TSB500 0631DS
7	66.6 (2.62)	50 (1.97)	1776296-7	TSB500 0731DS
8	76.6 (3.02)	60 (2.36)	1776296-8	TSB500 0831DS
9	86.6 (3.41)	70 (2.76)	1776296-9	TSB500 0931DS
10	96.6 (3.80)	80 (3.15)	1-1776296-0	TSB500 1031DS
11	106.6 (4.20)	90 (3.54)	1-1776296-1	TSB500 1131DS
12	116.6 (4.59)	100 (3.94)	1-1776296-2	TSB500 1231DS

10mm [.394] Pitch, 30A with Tunnel Connection—Series TSB500



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3

Screw Plating—Zinc with chromate

Mechanical Properties

Pitch (terminal spacing)—

10mm [.394]

Wire Strip Length—5mm [0.20"]

Min. Wire Pull-Out Force—75lbs.

Recommended Tightening

Torque—5 in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,

Xcelite R184

Electrical Properties

Maximum Current—30A

Operating Voltage—250V

Wire Range—10-22 AWG

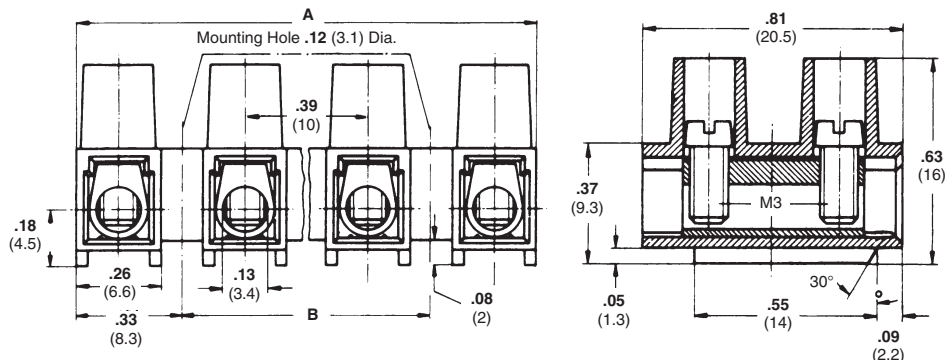
Dielectric Withstand—3500V

Environmental Properties

Continuous Working

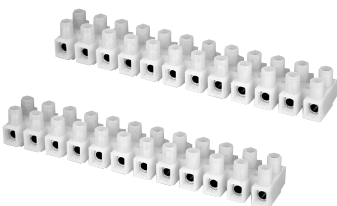
Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Tunnel Connection	
	A	B	Part Number	Catalog Number
1	6.6 (.26)	—	—	TSB500 0131
2	16.6 (.65)	—	1776297-2	TSB500 0231
3	26.6 (1.05)	10 (.39)	1776297-3	TSB500 0331
4	36.6 (1.44)	20 (.79)	1776297-4	TSB500 0431
5	46.6 (1.83)	30 (1.18)	1776297-5	TSB500 0531
6	56.6 (2.23)	40 (1.57)	1776297-6	TSB500 0631
7	66.6 (2.62)	50 (1.97)	1776297-7	TSB500 0731
8	76.6 (3.02)	60 (2.36)	1776297-8	TSB500 0831
9	86.6 (3.41)	70 (2.76)	1776297-9	TSB500 0931
10	96.6 (3.80)	80 (3.15)	1-1776297-0	TSB500 1031
11	106.6 (4.20)	90 (3.54)	1-1776297-1	TSB500 1131
12	116.6 (4.59)	100 (3.94)	1-1776297-2	TSB500 1231

10mm [.394] Pitch, 30A High Temperature—Series TSB500...HT



Material & Finish

Housing Material—Polyamide 6/6
Flammability—UL94V-0
Housing Color—Brown
Tubular Contact—Brass, tin plated
Screw—Steel, M3
Screw Plating—Zinc with chromate
Wire Protector—Stainless steel

Mechanical Properties

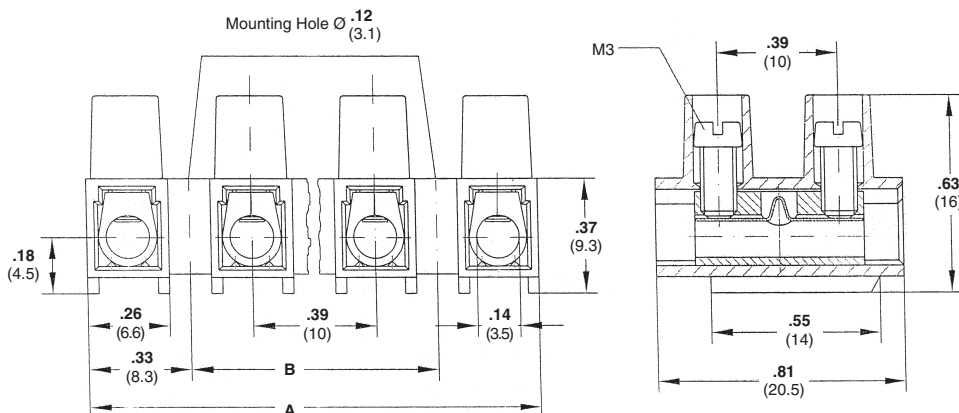
Pitch (terminal spacing)—
10mm [.394]
Wire Strip Length—5mm [0.20"]
Min. Wire Pull-Out Force—75lbs.
Recommended Tightening Torque—5 in.-lbs.
Recommended Screwdrivers—
Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—30A
Operating Voltage—250V
Wire Range—12-24 AWG
Dielectric Withstand—3500V

Environmental Properties

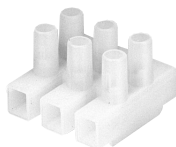
Continuous Working Temperature—
-50°C to +160°C [-58°F to +320°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	6.6 (.26)	—	1776298-1	TSB500 0131DS HT
2	16.6 (.65)	—	1776298-2	TSB500 0231DS HT
3	26.6 (1.05)	10 (.39)	1776298-3	TSB500 0331DS HT
4	36.6 (1.44)	20 (.79)	1776298-4	TSB500 0431DS HT
5	46.6 (1.83)	30 (1.18)	1776298-5	TSB500 0531DS HT
6	56.6 (2.23)	40 (1.57)	1776298-6	TSB500 0631DS HT
7	66.6 (2.62)	50 (1.97)	1776298-7	TSB500 0731DS HT
8	76.6 (3.02)	60 (2.36)	1776298-8	TSB500 0831DS HT
9	86.6 (3.41)	70 (2.76)	1776298-9	TSB500 0931DS HT
10	96.6 (3.80)	80 (3.15)	1-1776298-0	TSB500 1031DS HT
11	106.6 (4.20)	90 (3.54)	1-1776298-1	TSB500 1131DS HT
12	116.6 (4.59)	100 (3.94)	1-1776298-2	TSB500 1231DS HT

Note: Minimum order quantities may apply.

10mm [.394] Pitch, 30A Elongated Plastic—Series TSB500SK



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

10mm [.394"]

Wire Strip Length—5mm [0.20"]

Min. Wire Pull-Out Force—5 lbs.

Recommended Tightening

Torque—5 in.- lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,

Xcelite R184

Electrical Properties

Maximum Current—30A (UL),

25A (CSA)

Operating Voltage—600V

Wire Range—

Wire Protector—12-24 AWG

Tunnel Connection—10-22 AWG

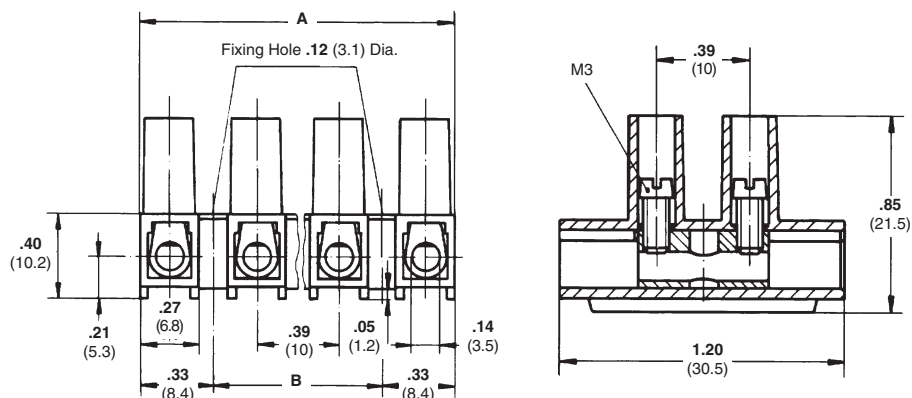
Dielectric Withstand—3500V

Environmental Properties

Continuous Working

Temperature—

-35°C to +100°C [-31°F to +212°F]

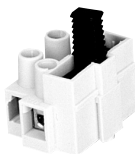


Tunnel Connection Version shown

No. of Positions	Dimensions		Tunnel Connection		Wire Protector	
	A	B	Part Number	Catalog Number	Part Number	Catalog Number
1	6.6 (.26)	—	1776299-1	TSB500 SK01	1776300-1	TSB500 SK01MDS
2	16.6 (.65)	—	1776299-2	TSB500 SK02	1776300-2	TSB500 SK02MDS
3	26.6 (1.05)	10 (.39)	1776299-3	TSB500 SK03	1776300-3	TSB500 SK03MDS
4	36.6 (1.44)	20 (.79)	1776299-4	TSB500 SK04	1776300-4	TSB500 SK04MDS
5	46.6 (1.83)	30 (1.18)	1776299-5	TSB500 SK05	1776300-5	TSB500 SK05MDS
6	56.6 (2.23)	40 (1.57)	1776299-6	TSB500 SK06	1776300-6	TSB500 SK06MDS
7	66.6 (2.62)	50 (1.97)	1776299-7	TSB500 SK07	1776300-7	TSB500 SK07MDS
8	76.6 (3.02)	60 (2.36)	1776299-8	TSB500 SK08	1776300-8	TSB500 SK08MDS
9	86.6 (3.41)	70 (2.76)	1776299-9	TSB500 SK09	1776300-9	TSB500 SK09MDS
10	96.6 (3.80)	80 (3.15)	1-1776299-0	TSB500 SK10	1-1776300-0	TSB500 SK10MDS
11	106.6 (4.20)	90 (3.54)	1-1776299-1	TSB500 SK11	1-1776300-1	TSB500 SK11MDS
12	116.6 (4.59)	100 (3.94)	1-1776299-2	TSB500 SK12	1-1776300-2	TSB500 SK12MDS

Note: Add suffix HT for High Temperature version. Minimum order quantities may apply.
Flammability: UL94V-0. Continuous working temperature: 150°C.

10mm [.394] Pitch, Fused Terminal Blocks—Series 503Si



Material & Finish

Housing Material—Polyamide 6/6

Color—Gray, handle is black

Tubular Contact—Brass, tin plated

Screw—Steel

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Contacts for Fuses—Stainless steel spring

Tunnel Connection—Without wire protector

Mechanical Properties

Pitch (terminal spacing)—
10mm [.394"]

Wire Strip Length—7mm [.276"]

Electrical Properties

Maximum Current—

To VDE 820—Fuse Holder 10A

To VDE 0100—Terminal Blocks 26A

To VDE 0700/0711—Terminal
Blocks 10A

Operating Voltage—

Fuse Holder—250V

Terminal Blocks—400V

Wire Range—

Wire Protector—12-22 AWG

Tunnel Connection—12-22 AWG

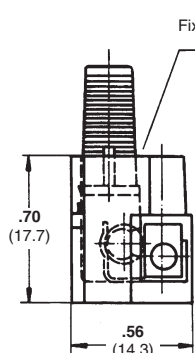
Environmental Properties

Continuous Working

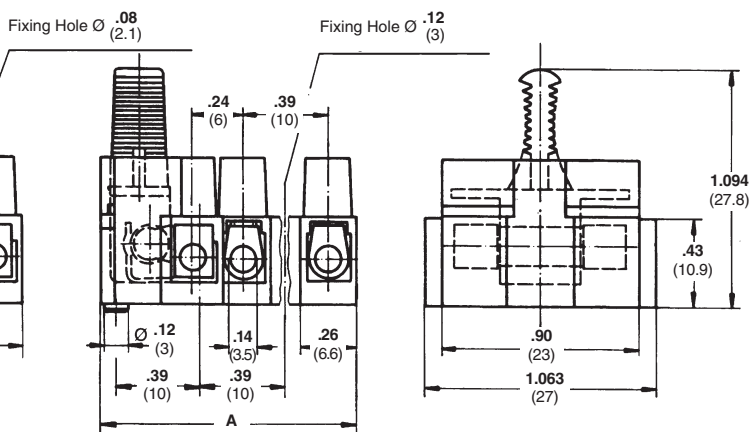
Temperature—

-35°C to +100°C [-31°F to +212°F]

500Si/1 (1 Circuit)



503Si (2-5 Circuits)



Series 503Si & 503Si...DS
version of TSB500 Series
with an integrated fuse
holder for 5 x 20mm
[.197 x .787] fuses.
Protection against
unintentional touch of live
parts to VBG4 and VDE
0106, part 100 and VDE
0470, part 1.

Series 503Si...E &
503Si...EDS include a
ground connection.

No. of Positions	Dim. A	Tunnel Connection		Wire Protector		Tunnel Connection Grounded		Wire Protector Grounded	
		Part Number	Catalog Number	Part Number	Catalog Number	Part Number	Catalog Number	Part Number	Catalog Number
1	14.3 (.56)	1776301-1	503Si 1	1776301-6	503Si 1DS	—	—	—	—
2	20 (.79)	1776301-2	503Si 2	1776301-7	503Si 2DS	—	—	—	—
3	30 (1.18)	—	503Si 3	1776301-8	503Si 3DS	—	503Si 3E	2-1776301-3	503Si 3EDS
4	40 (1.58)	—	503Si 4	1776301-9	503Si 4DS	1-1776301-4	503Si 4E	—	503Si 4EDS
5	50 (1.97)	1776301-5	503Si 5	1-1776301-0	503Si 5DS	—	503Si 5E	—	503Si 5EDS

12mm [.472] Pitch, 40A with Wire Protector—Series TSB1000



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3.5

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

12mm [.472"]

Wire Strip Length—7mm [.28"]

Min. Wire Pull-Out Force—125 lbs.

Recommended Tightening

Torque—10 in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—40A

Operating Voltage—250V

Wire Range—10-22 AWG

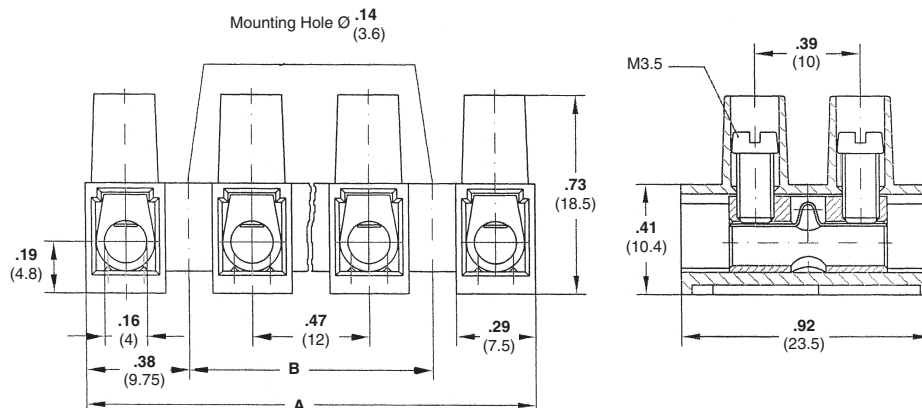
Dielectric Withstand—4500V

Environmental Properties

Continuous Working

Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	7.5 (.30)	—	1776302-1	TSB1000 01DS
2	19.5 (.77)	—	1776302-2	TSB1000 02DS
3	31.5 (1.24)	12 (.47)	1776302-3	TSB1000 03DS
4	43.5 (1.71)	24 (.95)	1776302-4	TSB1000 04DS
5	55.5 (2.19)	36 (1.42)	1776302-5	TSB1000 05DS
6	67.5 (2.66)	48 (1.89)	1776302-6	TSB1000 06DS
7	79.5 (3.13)	60 (2.36)	1776302-7	TSB1000 07DS
8	91.5 (3.60)	72 (2.83)	1776302-8	TSB1000 08DS
9	103.5 (4.07)	84 (3.31)	1776302-9	TSB1000 09DS
10	115.5 (4.55)	96 (3.78)	1-1776302-0	TSB1000 10DS
11	127.5 (5.02)	108 (4.25)	1-1776302-1	TSB1000 11DS
12	139.5 (5.49)	120 (4.72)	1-1776302-2	TSB1000 12DS

12mm [.472] Pitch, 50A with Tunnel Connection—Series TSB1000



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3.5

Screw Plating—Zinc with chromate

Mechanical Properties

Pitch (terminal spacing)—

12mm [.472"]

Wire Strip Length—7mm [.28"]

Min. Wire Pull-Out Force—125 lbs.

Recommended Tightening

Torque—10 in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,

Xcelite R184

Electrical Properties

Maximum Current—50A

Operating Voltage—250V

Wire Range—8-22 AWG

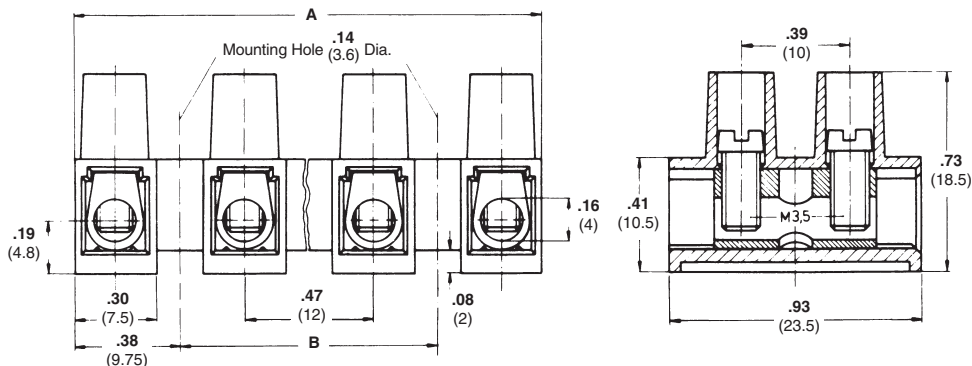
Dielectric Withstand—4500V

Environmental Properties

Continuous Working

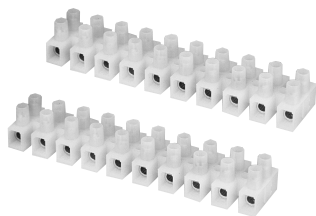
Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Tunnel Connection	
	A	B	Part Number	Catalog Number
1	7.5 (.30)	—	1776303-1	TSB1000 01
2	19.5 (.77)	—	1776303-2	TSB1000 02
3	31.5 (1.24)	12 (.47)	1776303-3	TSB1000 03
4	43.5 (1.71)	24 (.95)	1776303-4	TSB1000 04
5	55.5 (2.19)	36 (1.42)	1776303-5	TSB1000 05
6	67.5 (2.66)	48 (1.89)	1776303-6	TSB1000 06
7	79.5 (3.13)	60 (2.36)	1776303-7	TSB1000 07
8	91.5 (3.60)	72 (2.84)	1776303-8	TSB1000 08
9	103.5 (4.07)	84 (3.31)	1776303-9	TSB1000 09
10	115.5 (4.55)	96 (3.78)	1-1776303-0	TSB1000 10
11	127.5 (5.02)	108 (4.25)	1-1776303-1	TSB1000 11
12	139.5 (5.49)	120 (4.72)	1-1776303-2	TSB1000 12

12mm [.472] Pitch, 40A High Temperature—Series TSB1000...HT



Material & Finish

Housing Material—Polyamide 6/6

Flammability—UL94V-0

Housing Color—Brown

Tubular Contact—Brass, tin plated

Screw—Steel, M3.5

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

12mm [.472"]

Wire Strip Length—7mm [.28"]

Min. Wire Pull-Out Force—125 lbs.

Recommended Tightening

Torque—10 in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—40A

Operating Voltage—250V

Wire Range—10-24 AWG

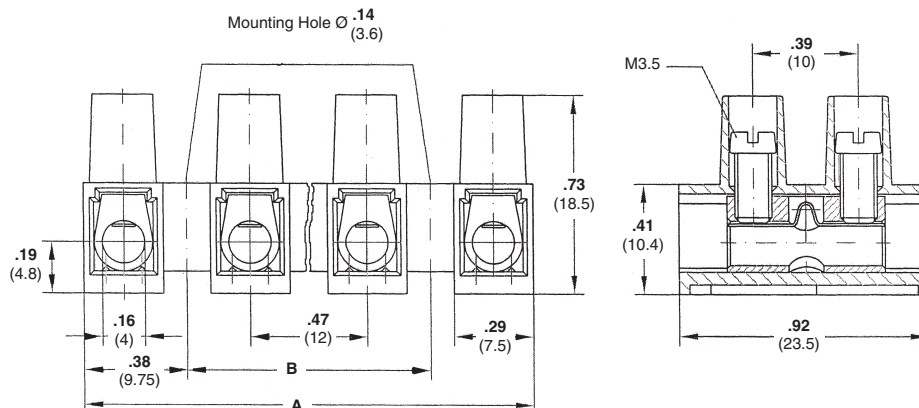
Dielectric Withstand—4500V

Environmental Properties

Continuous Working

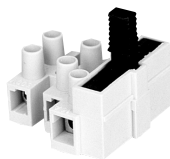
Temperature—

-50°C to +160°C [-58°F to +320°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	7.5 (.30)	—	—	TSB1000 01DS HT
2	19.5 (.77)	—	1776304-2	TSB1000 02DS HT
3	31.5 (1.24)	12 (.47)	1776304-3	TSB1000 03DS HT
4	43.5 (1.71)	24 (.95)	1776304-4	TSB1000 04DS HT
5	55.5 (2.19)	36 (1.42)	1776304-5	TSB1000 05DS HT
6	67.5 (2.66)	48 (1.89)	1776304-6	TSB1000 06DS HT
7	79.5 (3.13)	60 (2.36)	1776304-7	TSB1000 07DS HT
8	91.5 (3.60)	72 (2.84)	1776304-8	TSB1000 08DS HT
9	103.5 (4.07)	84 (3.31)	1776304-9	TSB1000 09DS HT
10	115.5 (4.55)	96 (3.78)	1-1776304-0	TSB1000 10DS HT
11	127.5 (5.02)	108 (4.25)	1-1776304-1	TSB1000 11DS HT
12	139.5 (5.49)	120 (4.72)	1-1776304-2	TSB1000 12DS HT

12mm [.472] Pitch, Fused Terminal Blocks—Series 1003Si



Material & Finish

Housing Material—Polyamide 6/6

Color—Gray, handle is black

Tubular Contact—Brass, tin plated

Screw—Steel

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Contacts for Fuses—Stainless steel screw

Tunnel Connection—Without wire protector

Mechanical Properties

Pitch (terminal spacing)—
12mm [.472"]

Wire Strip Length—7.5mm [.295"]

Electrical Properties

Maximum Current—

To VDE 0820—Fuse Holder 16A

To VDE 0100—Terminal Blocks 34A

To VDE 0700/0711—Terminal
Blocks 16A

Operating Voltage—

Fuse Holder—250V

Terminal Blocks—400V

Wire Range—

Wire Protector—up to
10mm² (10-24 AWG)

Tunnel Connection—up to
4mm² (8-22 AWG)

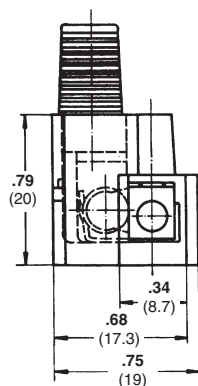
Environmental Properties

Continuous Working

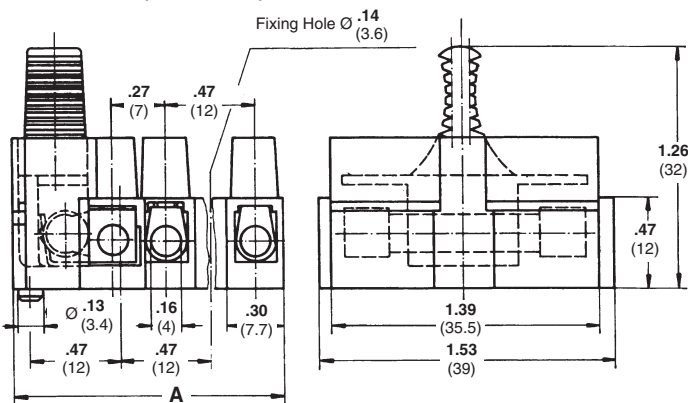
Temperature—

-35°C to +100°C [-31°F to +212°F]

1003Si/1 (1 Circuit)



1003Si (2-5 Circuits)



Series 1003Si & 1003Si...DS version of TSB1000 Series with an integrated fuse holder for 1/4" x 1" (6.3 x 25mm) or 1/4" x 1 1/4" (6.3mm x 32mm). Protection against unintended touch of live parts to VBG4.

Series 1003Si...E & 1003Si...EDS include a ground connection.

No. of Positions	Dim. A	Tunnel Connection		Wire Protector		Tunnel Connection Grounded		Wire Protector Grounded	
		Part Number	Catalog Number	Part Number	Catalog Number	Part Number	Catalog Number	Part Number	Catalog Number
1	18.7 (.74)	1-1776309-1	1003Si 1	1776309-1	1003Si 1DS	—	—	—	—
2	24 (0.95)	1-1776309-2	1003Si 2	1776309-2	1003Si 2DS	—	—	—	—
3	36 (1.42)	1-1776309-3	1003Si 3	—	1003Si 3DS	1776309-3	1003Si 3E	1776309-4	1003Si 3EDS
4	48 (1.89)	1-1776309-4	1003Si 4	—	1003Si 4DS	—	1003Si 4E	—	1003Si 4EDS
5	60 (2.36)	1-1776309-5	1003Si 5	—	1003Si 5DS	—	1003Si 5E	—	1003Si 5EDS

13.5mm [.531] Pitch, 40A—Series TSB1500



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Tunnel Connection—Without wire protector

Mechanical Properties

Pitch (terminal spacing)—
13.5mm [.531"]

Wire Strip Length—8mm [.315"]

Recommended Tightening

Torque—10 in.-lbs.

Recommended Screwdrivers—

Stanley 1016, Sears Craftsman 41429,
Xcelite R184

Electrical Properties

Maximum Current—40A (UR);
55A (CSA)

Operating Voltage—300V

Wire Range—

Wire Protector—8-18 AWG

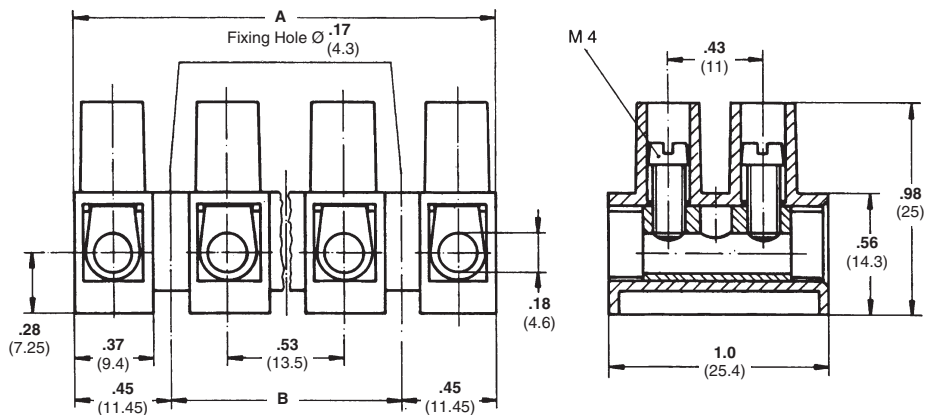
Tunnel Connection—8-16 AWG

Environmental Properties

Continuous Working

Temperature—

-35°C to +100°C [-31°F to +212°F]



Tunnel Connection Version shown

No. of Positions	Dimensions		Tunnel Connection		Wire Protector	
	A	B	Part Number	Catalog Number	Part Number	Catalog Number
1	9.4 (.37)	—	1776310-1	TSB1500 01	1776311-1	TSB1500 01DS
2	22.9 (.90)	—	1776310-2	TSB1500 02	1776311-2	TSB1500 02DS
3	36.4 (1.43)	13.5 (.53)	1776310-3	TSB1500 03	1776311-3	TSB1500 03DS
4	49.9 (1.96)	27.0 (1.06)	1776310-4	TSB1500 04	1776311-4	TSB1500 04DS
5	63.4 (2.49)	40.5 (1.59)	1776310-5	TSB1500 05	1776311-5	TSB1500 05DS
6	76.9 (3.03)	54.0 (2.12)	1776310-6	TSB1500 06	1776311-6	TSB1500 06DS
7	90.4 (3.55)	67.5 (2.65)	1776310-7	TSB1500 07	1776311-7	TSB1500 07DS
8	103.9 (4.09)	81.0 (3.19)	1776310-8	TSB1500 08	1776311-8	TSB1500 08DS
9	117.4 (4.62)	94.5 (3.72)	1776310-9	TSB1500 09	1776311-9	TSB1500 09DS
10	130.9 (5.15)	108.0 (4.25)	1-1776310-0	TSB1500 10	1-1776311-0	TSB1500 10DS
11	144.4 (5.68)	121.5 (4.78)	1-1776310-1	TSB1500 11	1-1776311-1	TSB1500 11DS
12	157.9 (6.21)	135.0 (5.31)	1-1776310-2	TSB1500 12	1-1776311-2	TSB1500 12DS

14.5mm [.571] Pitch, 65A—Series TSB2000



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3.5

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Tunnel Connection—Without wire protector

Mechanical Properties

Pitch (terminal spacing)—
14.5mm [.571"]

Wire Strip Length—9mm [.35"]

Min. Wire Pull-Out Force—150lbs.

Recommended Tightening
Torque—12 in.-lbs.

Recommended Screwdrivers—

Stanley 1008, Sears Craftsman 41436,

Xcelite R3164

Electrical Properties

Maximum Current—65A (UR),
70A (CSA)

Operating Voltage—300V

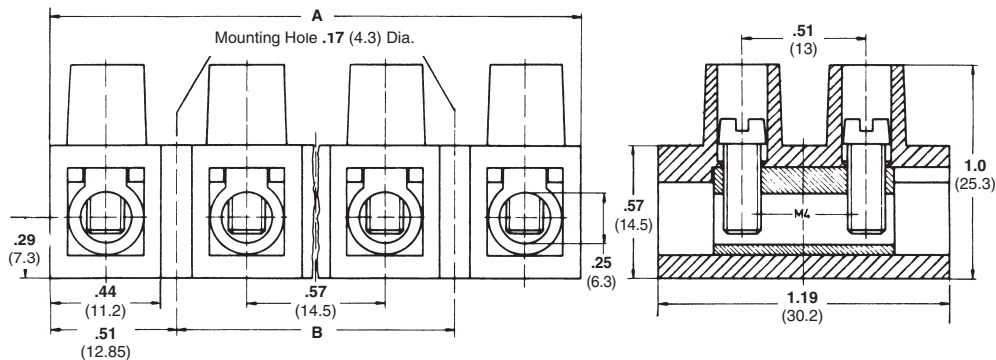
Wire Range—6-14 AWG (UR),
6-22 AWG (CSA)

Dielectric Withstand—6000V

Environmental Properties

Continuous Working
Temperature—

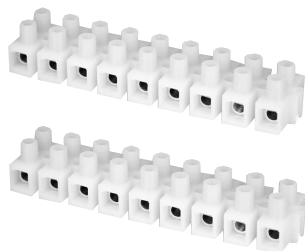
-35°C to +100°C [-31°F to +212°F]



Tunnel Connection Version shown

No. of Positions	Dimensions		Tunnel Connection		Wire Protector	
	A	B	Part Number	Catalog Number	Part Number	Catalog Number
1	11.2 (.44)	—	1776312-1	TSB2000 01	1776313-1	TSB2000 01DS
2	25.7 (1.01)	—	1776312-2	TSB2000 02	1776313-2	TSB2000 02DS
3	40.2 (1.58)	14.5 (.57)	1776312-3	TSB2000 03	1776313-3	TSB2000 03DS
4	54.7 (2.15)	29.0 (1.14)	1776312-4	TSB2000 04	1776313-4	TSB2000 04DS
5	69.2 (2.72)	43.5 (1.71)	1776312-5	TSB2000 05	1776313-5	TSB2000 05DS
6	83.7 (3.30)	58.0 (2.28)	1776312-6	TSB2000 06	1776313-6	TSB2000 06DS
7	98.2 (3.87)	72.5 (2.85)	1776312-7	TSB2000 07	1776313-7	TSB2000 07DS
8	112.7 (4.44)	87.0 (3.43)	1776312-8	TSB2000 08	1776313-8	TSB2000 08DS
9	127.2 (5.01)	101.5 (4.00)	1776312-9	TSB2000 09	1776313-9	TSB2000 09DS
10	141.7 (5.58)	116.0 (4.57)	1-1776312-0	TSB2000 10	1-1776313-0	TSB2000 10DS
11	156.2 (6.15)	130.5 (5.14)	1-1776312-1	TSB2000 11	1-1776313-1	TSB2000 11DS
12	170.7 (6.72)	145.0 (5.71)	1-1776312-2	TSB2000 12	1-1776313-2	TSB2000 12DS

14.5mm [.571] Pitch, 65A High Temperature—Series TSB2000...HT



Material & Finish

Housing Material—Polyamide 6/6

Flammability—UL94V-0

Housing Color—Brown

Tubular Contact—Brass, tin plated

Screw—Steel, M3.5

Screw Plating—Zinc with chromate

Wire Protector—Stainless steel

Mechanical Properties

Pitch (terminal spacing)—

14.5mm [.571"]

Wire Strip Length—9mm [.35"]

Min. Wire Pull-Out Force—150 lbs.

Recommended Tightening

Torque—12 in.-lbs.

Recommended Screwdrivers—

Stanley 1008, Sears Craftsman 41436,
Xcelite R3164

Electrical Properties

Maximum Current—65A (UR),
70A (CSA)

Operating Voltage—300V

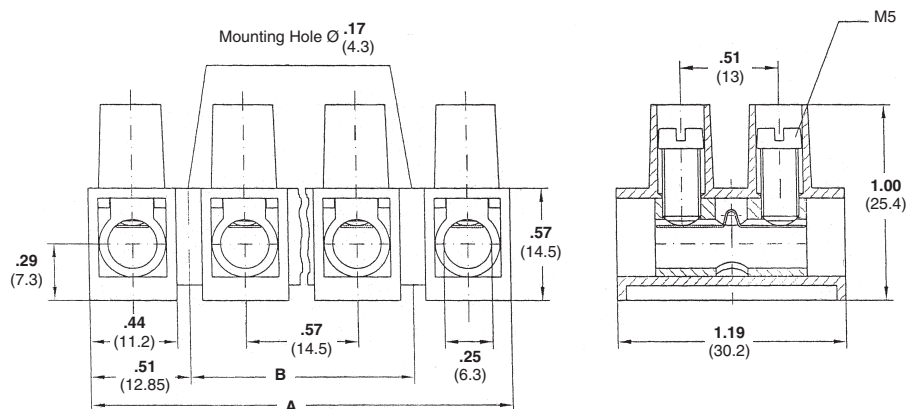
Wire Range—6-14 AWG (UR),
6-22 AWG (CSA)

Dielectric Withstand—6000V

Environmental Properties

**Continuous Working
Temperature**—

-35°C to +150°C [-31°F to +302°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	11.2 (.44)	—	1776314-1	TSB2000 01 DSHT
2	25.7 (1.01)	—	1776314-2	TSB2000 02 DSHT
3	40.2 (1.58)	14.5 (.57)	1776314-3	TSB2000 03 DSHT
4	54.7 (2.15)	29.0 (1.14)	1776314-4	TSB2000 04 DSHT
5	69.2 (2.72)	43.5 (1.71)	1776314-5	TSB2000 05 DSHT
6	83.7 (3.30)	58.0 (2.28)	1776314-6	TSB2000 06 DSHT
7	98.2 (3.87)	72.5 (2.85)	1776314-7	TSB2000 07 DSHT
8	112.7 (4.44)	87.0 (3.43)	1776314-8	TSB2000 08 DSHT
9	127.2 (5.01)	101.5 (4.00)	1776314-9	TSB2000 09 DSHT
10	141.7 (5.58)	116.0 (4.57)	1-1776314-0	TSB2000 10 DSHT
11	156.2 (6.15)	130.5 (5.14)	1-1776314-1	TSB2000 11 DSHT
12	170.7 (6.72)	145.0 (5.71)	1-1776314-2	TSB2000 12 DSHT

Note: Minimum order quantities may apply.

14.5mm [.571] Pitch, 65A High Voltage Version—Series TSB2000...US



Material & Finish

Housing Material—Polyamide 6

Flammability—UL94V-2

Color—Natural (off white)

Tubular Contact—Brass, tin plated

Screw—Steel, M3.5

Screw Plating—Zinc with chromate

Wire Protector—Stainless Steel

Mechanical Properties

Pitch (terminal spacing)—

14.5mm [.571"]

Wire Strip Length—9mm [.35"]

Min. Wire Pull-Out Force—150 lbs.

Recommended Tightening

Torque—12 in.-lbs.

Recommended Screwdrivers—

Stanley 1008, Sears Craftsman 41436,
Xcelite R3164

Electrical Properties

Maximum Current—65A (UR),
70A (CSA)

Operating Voltage—600V

Wire Range—6-14 AWG (UR),
6-22 AWG (CSA)

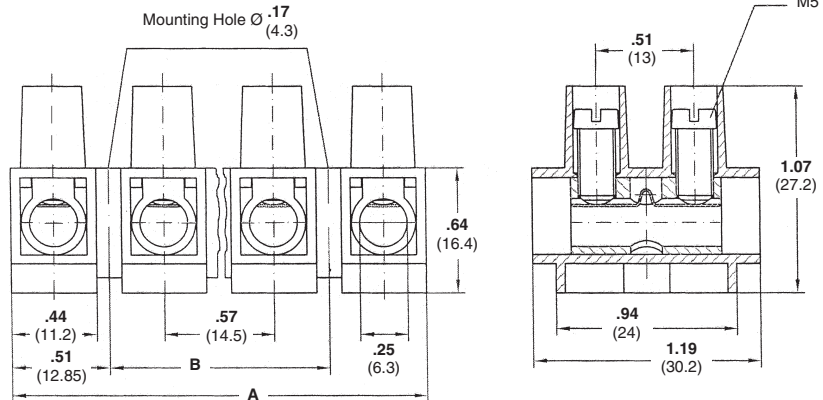
Dielectric Withstand—6000V

Environmental Properties

Continuous Working

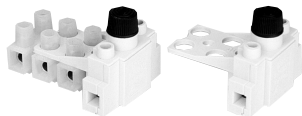
Temperature—

-35°C to +100°C [-31°F to +212°F]



No. of Positions	Dimensions		Wire Protector	
	A	B	Part Number	Catalog Number
1	11.2 (.44)	—	—	TSB2000 01KDS
2	25.7 (1.01)	—	1776315-2	TSB2000 02KDS
3	40.2 (1.58)	14.5 (.57)	1776315-3	TSB2000 03KDS
4	54.7 (2.15)	29.0 (1.14)	1776315-4	TSB2000 04KDS
5	69.2 (2.72)	43.5 (1.71)	1776315-5	TSB2000 05KDS
6	83.7 (3.30)	58.0 (2.28)	1776315-6	TSB2000 06KDS
7	98.2 (3.87)	72.5 (2.85)	1776315-7	TSB2000 07KDS
8	112.7 (4.44)	87.0 (3.43)	1776315-8	TSB2000 08KDS
9	127.2 (5.01)	101.5 (4.00)	1776315-9	TSB2000 09KDS
10	141.7 (5.58)	116.0 (4.57)	1-1776315-0	TSB2000 10KDS
11	156.2 (6.15)	130.5 (5.14)	1-1776315-1	TSB2000 11KDS
12	170.7 (6.72)	145.0 (5.71)	1-1776315-2	TSB2000 12KDS

Fuse Holder (for Series TSB500, TSB1000)—Series 500Si



Material & Finish

Housing Material—Polyamide 6/6

Color—Gray

Tubular Contact—Brass, tin plated

Screw—Steel

Screw Plating—Zinc with chromate

Mechanical Properties

Pitch (terminal spacing)—

10mm [.394] and 12mm [.472]

Wire Strip Length—6.5mm [.256]

Electrical Properties

Maximum Current—

To VDE 0820—10A

To VDE 0700/0711—10A

Operating Voltage—250V

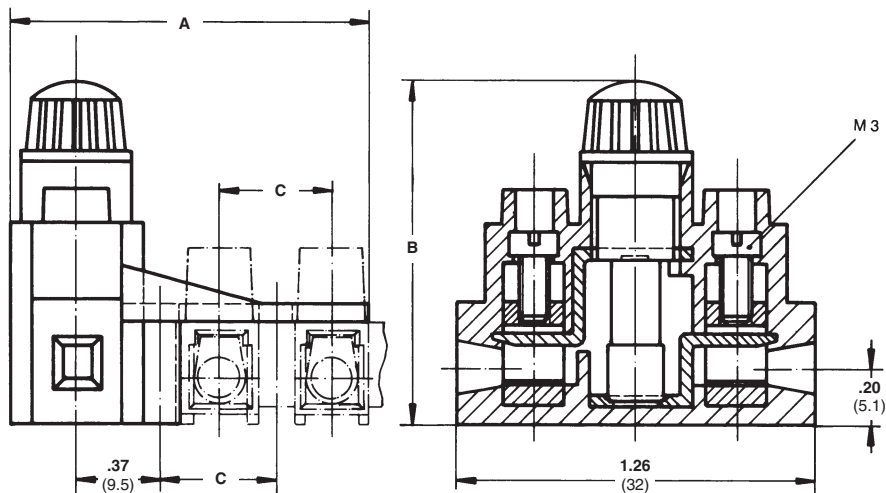
Wire Range—12-22 AWG

Environmental Properties

Continuous Working

Temperature—

-35°C to +100°C [-31°F to +212°F]



Series 500Si:

Two versions mate with TSB500 and TSB1000 to provide a fuse holder for 5 x 20mm [.197 x .787] or 5mm x 25mm [.197 x .984] fuses. These connectors comply with VDE 0820, part 2.

Series 500Si...K:

Same as the standard series but provides a raised, transparent "bayonet catch" which serves as a Fuse Link Carrier for fuses 5 x 25mm [.197 x .984] (with indicator).

Description	Dimensions			Catalog Number
	A	B	C	
For TSB500 Series	35 (1.378)	29 (1.142)	10 (.394)	500Si 5
For TSB1000 Series	37 (1.457)	30 (1.181)	12 (.472)	500Si 10
w/ Fuse Link Carrier for TSB500 Series	35 (1.378)	34 (1.339)	10 (.394)	500Si 5K
w/ Fuse Link Carrier for TSB1000 Series	37 (1.457)	35 (1.378)	12 (.472)	500Si 10K

Covers—Series ABK



Material & Finish

Housing Material—Polyamide 6/6

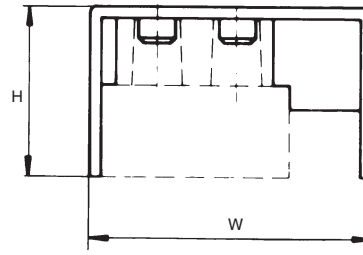
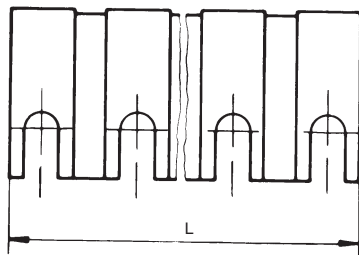
Color—Gray

Continuous Working

Temperature—100°C [212°F]

Series ABK 405, 406, & 415 Covers

These covers mate with Series TSB500, TSB1000 and TSB1500. They do not mate with TSB500 SK.



Cover for TSB500 Series

Dimensions L x W x H	Catalog Number
18 x 29 x 18.8 (.709 x 1.142 x .740)	ABK 405 02
28 x 29 x 18.8 (1.102 x 1.142 x .740)	ABK 405 03
38 x 29 x 18.8 (1.496 x 1.142 x .740)	ABK 405 04
58 x 29 x 18.8 (2.283 x 1.142 x .740)	ABK 405 06
118 x 29 x 18.8 (4.646 x 1.142 x .740)	ABK 405 12

Cover for TSB1000 Series

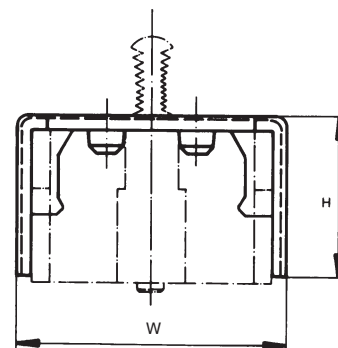
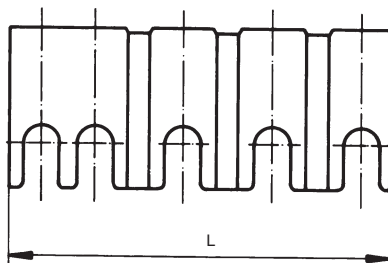
Dimensions L x W x H	Catalog Number
21 x 35.5 x 20.7 (.827 x 1.398 x .815)	ABK 406 02
33 x 35.5 x 20.7 (1.299 x 1.398 x .815)	ABK 406 03
45 x 35.5 x 20.7 (1.772 x 1.398 x .815)	ABK 406 04
69 x 35.5 x 20.7 (2.717 x 1.398 x .815)	ABK 406 06
141 x 35.5 x 20.7 (5.551 x 1.398 x .815)	ABK 406 12

Cover for TSB1500 Series

Dimensions L x W x H	Catalog Number
24 x 37.5 x 25.5 (.945 x 1.476 x 1.004)	ABK 415 02
37.5 x 37.5 x 25.5 (1.476 x 1.476 x 1.004)	ABK 415 03
51 x 37.5 x 25.5 (2.008 x 1.476 x 1.004)	ABK 415 04
78 x 37.5 x 25.5 (3.071 x 1.476 x 1.004)	ABK 415 06
158 x 37.5 x 25.5 (6.220 x 1.476 x 1.004)	ABK 415 12

Series ABK 503 Covers

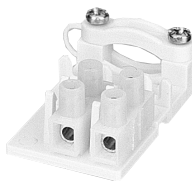
These covers mate with Series 503Si.



Cover for 503Si Series

Dimensions L x W x H	Catalog Number
13.5 x 30.5 x 18.5 (.531 x 1.201 x .728)	ABK 503 02
24 x 30.5 x 18.5 (.945 x 1.201 x .728)	ABK 503 03
33.5 x 30.5 x 18.5 (1.319 x 1.201 x .728)	ABK 503 04
43 x 30.5 x 18.5 (1.693 x 1.201 x .728)	ABK 503 05

Strain Relief (for Series TSB500)—Series 500...ZEL



Material & Finish

Housing Material—Polyamide 6/6

Color—White

Tracking Resistance—CTI 600

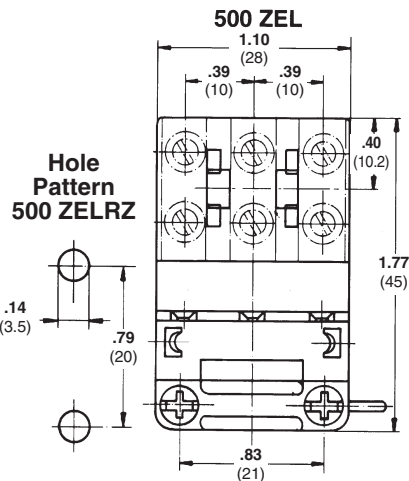
Screw—Steel

Screw Plating—Zinc with yellow
chromate C 2.9 x 13mm [.114 x .512]

Environmental Properties

Continuous Working

Temperature—
-35°C to +100°C [-31°F to +212°F]

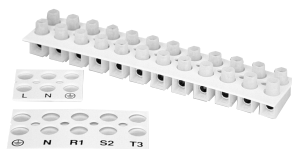


Description	Part Number	Catalog Number
For Series TSB500	1546182-1	500 3ZEL
With Catch Pin for Series TSB500	1546182-2	500 3ZELRZ

Strain reliefs are provided with a captive clamping mechanism that can be rotated by 180° accommodating variable sizes of conductors. Two Phillips screws are enclosed.

A cable guide comb for TSB500 of 3 or more circuits fixes the Europa block to the strain relief. A screw mounts the Europa block to the 500 3ZEL; a catch pin mounts the block to the 500 3ZELRZ

Blank Marking Labels—Series...BZ (2-12 Circuits)

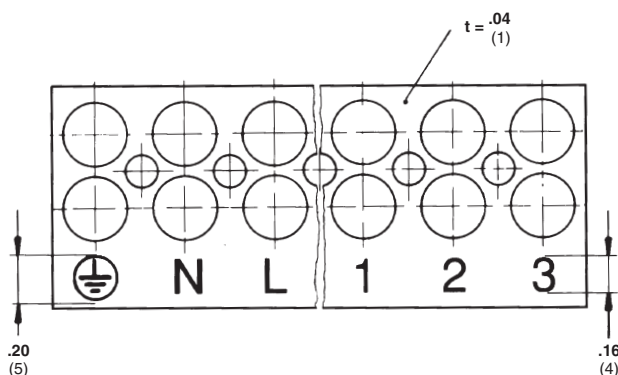


Material & Finish

Material—Roughened synthetic

Color—White

Thickness—1mm



Catalog Number				
TSB230 Series	TSB500 Series	TSB1000 Series	TSB1500 Series	TSB2000 Series
230 BZM	500 BZM	1000 BZM	1500 BZM	2000 BZM

Standard Package: 100 pieces per catalog number, 2-meter [6.56 ft] length

Each pole is provided with 2 holes allowing the marking labels to be slipped on the “chimney” tops, and with a mounting hole corresponding to the mounting hole of the connectors.

Marking Strips:

Series TSB Marking Strips are available in both Standard and Custom-cut lengths. Standard Marking Strips are supplied blank, 2 meters [6.56 ft] in length which the customer may

cut to suit individual length requirement. Custom Marking Strips are supplied pre-cut, and may be ordered blank or with printing. Marking Strips protrude from the barrier strip approximately 5mm [.197] on one side, and can be affixed to either the bottom or the top of the barrier strip.

TSB230 Series		TSB500 Series		TSB1000 Series		TSB1500 Series	TSB2000 Series
Part Number	Catalog Number	Part Number	Catalog Number	Part Number	Catalog Number	Catalog Number	Catalog Number
—	M230 BZ 02	—	M500 BZ 02	—	M1000 BZ 02	M1500 BZ 02	M2000 BZ 02
1-1437387-5	M230 BZ 03	—	M500 BZ 03	—	M1000 BZ 03	M1500 BZ 03	M2000 BZ 03
1-1437387-6	M230 BZ 04	—	M500 BZ 04	—	M1000 BZ 04	M1500 BZ 04	M2000 BZ 04
—	M230 BZ 05	—	M500 BZ 05	—	M1000 BZ 05	M1500 BZ 05	M2000 BZ 05
—	M230 BZ 06	2-1437387-3	M500 BZ 06	—	M1000 BZ 06	M1500 BZ 06	M2000 BZ 06
—	M230 BZ 07	—	M500 BZ 07	—	M1000 BZ 07	M1500 BZ 07	M2000 BZ 07
—	M230 BZ 08	—	M500 BZ 08	1546830-8	M1000 BZ 08	M1500 BZ 08	M2000 BZ 08
1-1437387-7	M230 BZ 09	—	M500 BZ 09	—	M1000 BZ 09	M1500 BZ 09	M2000 BZ 09
1-1437387-8	M230 BZ 10	—	M500 BZ 10	—	M1000 BZ 10	M1500 BZ 10	M2000 BZ 10
—	M230 BZ 11	—	M500 BZ 11	—	M1000 BZ 11	M1500 BZ 11	M2000 BZ 11
1-1437387-9	M230 BZ 12	2-1437387-4	M500 BZ 12	1437387-6	M1000 BZ 12	M1500 BZ 12	M2000 BZ 12

Standard Package: 250 pieces per catalog number

Engineering Notes

