

DESCRIPTION/APPLICATION

The Tri-Barrier product is an original Thomas & Betts design and we set new terminal block standards with its introduction. In recent years, some of our competition has copied this design.

It's easy to see why we're copied. Our Tri-Barrier blocks help contain stray or frayed wire ends. This prevents electrical shorts — not only between positions on the same block, but also between other components immediately adjacent to the block. With today's high-density PCB designs, this has become an increasingly important feature.

APPLICATIONS

- Industrial controls and automation
- Machine tools
- HVAC/R
- Power supplies
- Security/Irrigation
- Transformers

DESIGN ADVANTAGES

- Back barriers to safeguard field wiring
- Fast wiring – backed-out wire-ready screws
- Interrupted thread prevents screws from falling out
- Standoffs allow flux and solvents to drain during cleaning
- Molded-to-length or cut-to-length versions available
- Slotted or phil-slot screws available

TRI-BARRIER STRIPS



CONNECTOR INDEX

0.250"	Pitch, Series #3.....	56-59
0.250"	Pitch, Series RSB2.....	60, 61
0.325"	Pitch, Series #4.....	62-65
0.325"	Pitch, Series RSB3.....	66-69
0.375"	Pitch, Series #6.....	70-73
0.375"	Pitch, Series RSB6.....	74-77
0.375"	Pitch, Series BC6, Panel Mount.....	78-79
0.375"	Pitch, Series MB6, Double Level.....	80, 81
0.4375"	Pitch, Series #8.....	82, 83

0.375" PITCH
SERIES #6
TRI-BARRIER

PHYSICAL PROPERTIES

HOUSING MATERIAL: Polyamide
FLAMMABILITY: UL94V-0
COLOR: Black

TERMINAL

TERMINALS: Bright acid tin over copper alloy
SCREWS: #6-32 steel, zinc plating with clear chromate coating. Wire clamping screws standard. Binding head screw with undercut optional.

MECHANICAL

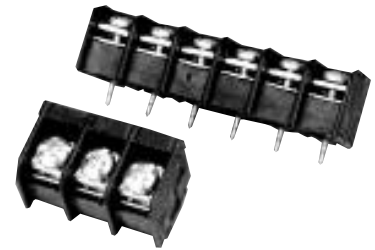
PITCH (TERMINAL SPACING): 0.375"
RECOMMENDED PCB HOLE DIA.: 1.8mm (.073")

ELECTRICAL PROPERTIES

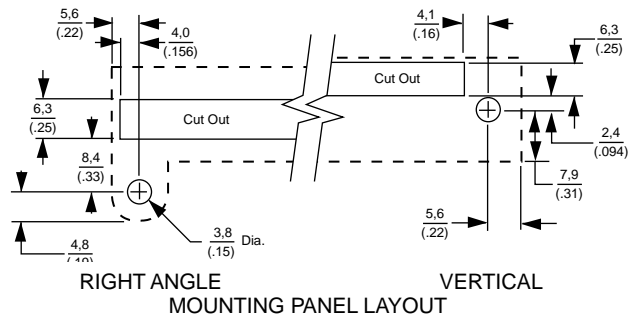
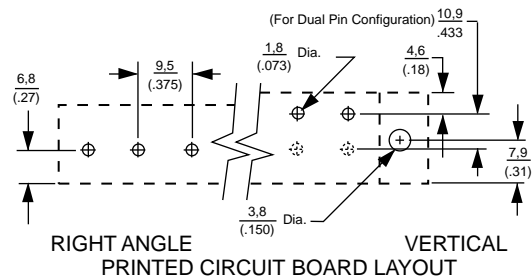
MAXIMUM CURRENT: 25A
OPERATING VOLTAGE: 300V
WIRE RANGE: 12-22 AWG

ENVIRONMENTAL PROPERTIES

OPERATING TEMPERATURE RANGE: 105°C max.



6PCV-03 & 6PCV-06



0.375" PITCH
SERIES #6
TRI-BARRIER

6 PCV-04-004

A **B** **C** **D**

ORDERING INFORMATION

A Screw Size Spacing
6 = #6-32 on .375" Centers

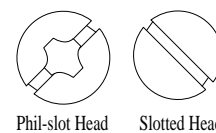
C No. of Circuits (Not positions)
02 through 30

B Terminal Style

- DBL = Double Printed Circuit Pin
- PCR = Printed Circuit, Right Angle
- PCV = Printed Circuit Pin, Vertical
- STR = Solder Turret, Right Angle
- STV = Solder Turret, Vertical
- TBV = Non Feed Thru (bottom covers required for all powered positions)
- WWR = Solderless Wire Wrap, Right Angle
- WWV = Solderless Wire Wrap, Vertical

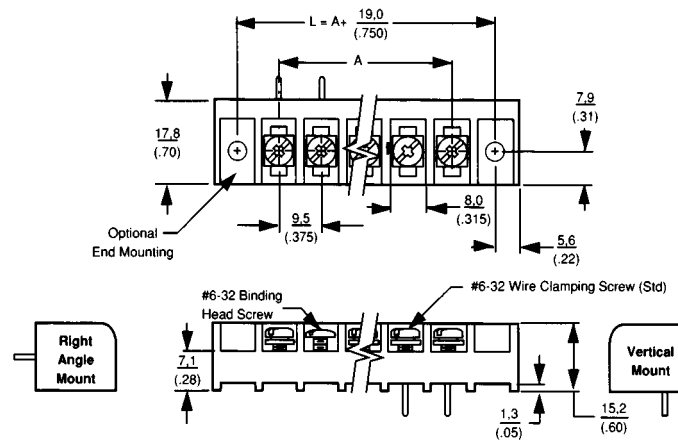
D Modifiers

Use table below.
Note: If modifier is -000
it may be omitted. (6PCV-06)



Model	Modifier		Screw Style	Mounting Construction
	Slotted Head	Phil-slot Head		
DBL	000	006	Wire Clamp	No Mounting
	001	007	Binding Head	
PCV	000	006	Wire Clamp	No Mounting
	001	007	Binding Head	
	004	008	Wire Clamp	
	005	009	Binding Head	
PCR	000	006	Wire Clamp	No Mounting
	001	007	Binding Head	
	004	008	Wire Clamp	
	005	009	Binding Head	
STV WWV	000	006	Wire Clamp	
	004	008	Wire Clamp	
STR WWR	000	006	Wire Clamp	
	004	008	Wire Clamp	
TBV	000	006	Wire Clamp	

0.375" PITCH
SERIES #6
TRI-BARRIER

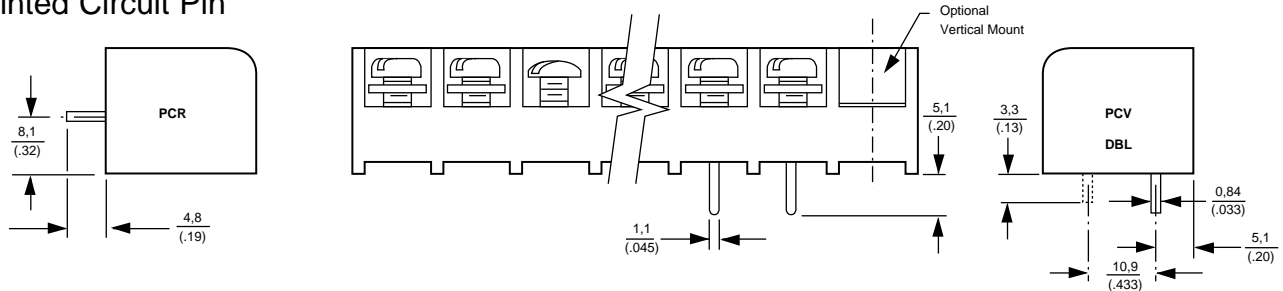


Dimensions

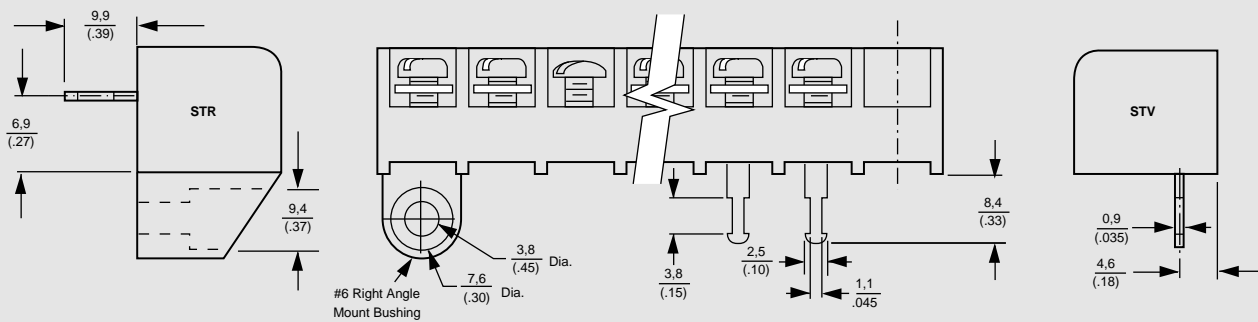
TERMINALS	A	TERMINALS	A
2	(.375) 9,5	17	(6.00) 152,4
3	(0.75) 19,1	18	(6.37) 161,9
4	(1.12) 28,6	19	(6.75) 171,4
5	(1.50) 38,1	20	(7.12) 181,9
6	(1.87) 47,6	21	(7.50) 190,5
7	(2.25) 57,1	22	(7.87) 200,0
8	(2.62) 66,7	23	(8.25) 209,5
9	(3.00) 76,2	24	(8.62) 219,1
10	(3.37) 85,7	25	(9.00) 228,6
11	(3.75) 95,2	26	(9.38) 238,1
12	(4.12) 104,8	27	(9.75) 247,7
13	(4.50) 114,3	28	(10.13) 257,2
14	(4.87) 123,8	29	(10.50) 266,7
15	(5.25) 133,3	30	(10.88) 276,2
16	(5.62) 142,9		

0.375" PITCH
SERIES #6
TRI-BARRIER

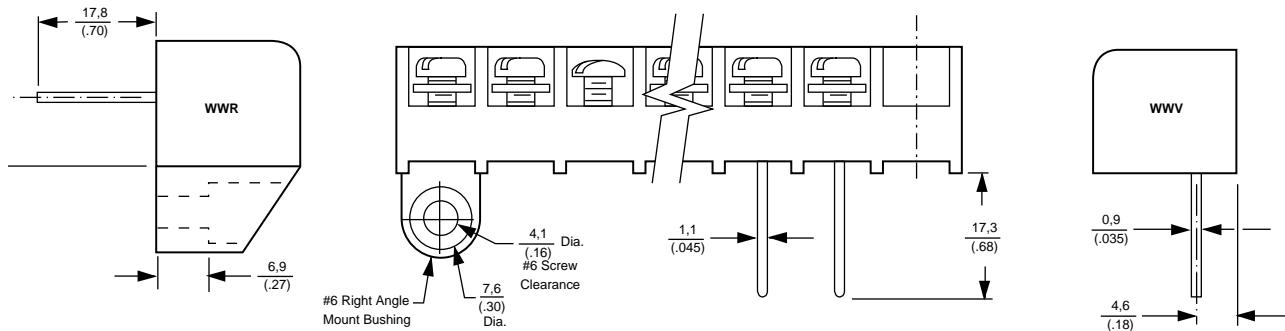
Printed Circuit Pin



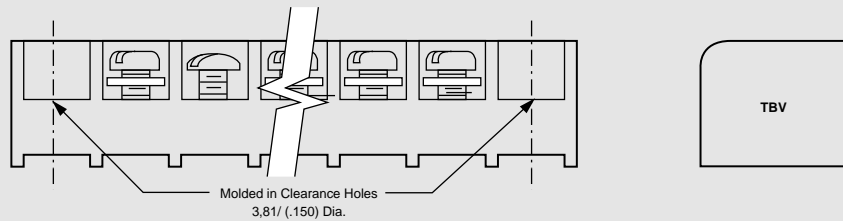
Solder Turret



Wire Wrap



Non-Feed Thru



0.375" PITCH SERIES RSB6

PHYSICAL PROPERTIES

HOUSING MATERIAL: Polypropylene
FLAMMABILITY: UL94V-2
COLOR: Black

TERMINAL

TERMINALS: Brass, bright acid tin over copper plating
SCREW: Steel w/Zinc + Chromate plating
CLAMP: Steel w/Zinc + Chromate plating

MECHANICAL

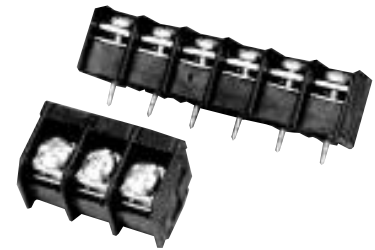
PITCH (TERMINAL SPACING): .375"
SCREW SIZE: 6-32
RECOMMENDED PCB HOLE DIA.: .062"
WIRE STRIP LENGTH: .38"
RECOMMENDED TIGHTENING TORQUE: 9 in lbs.
RECOMMENDED SCREWDRIVERS: Stanley 1006-4,
Sears Craftsman 41581, Any #2 Phillips-Head
WIRE LUG WIDTH (MAX.): 8,1mm (.320")

ELECTRICAL PROPERTIES

MAXIMUM CURRENT: 20A
OPERATING VOLTAGE: 300V
WIRE RANGE: (Clamp Screw) #12 max AWG
(Binding Head Screw) #14 max AWG
DIELECTRIC WITHSTAND: 3500V

ENVIRONMENTAL PROPERTIES

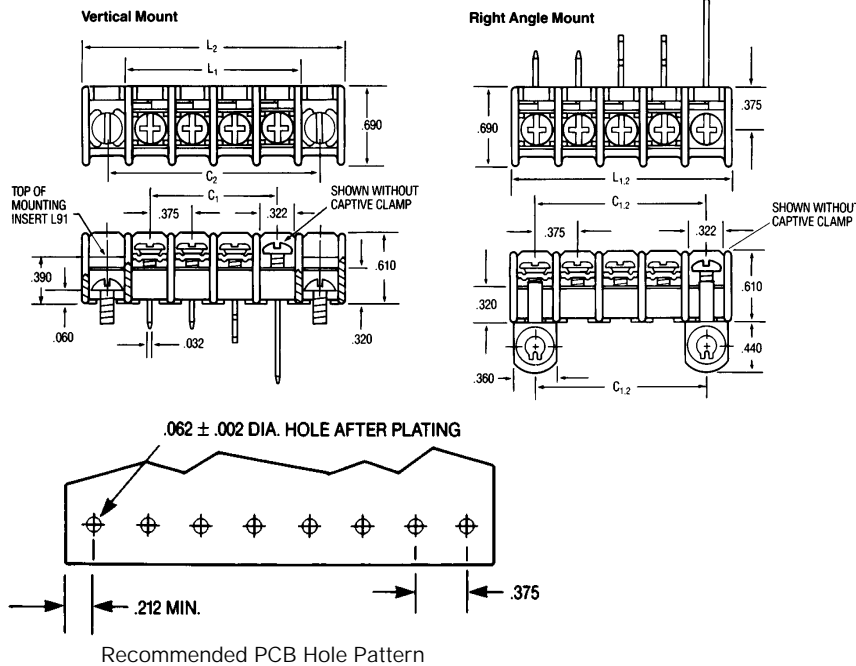
OPERATING TEMPERATURE RANGE: -60°C to +105°C
(-76°F to +221°F)



RSB6RP##1102

Dimensions

CIRCUITS (NOT POSITIONS)	C1 IN.	L1* IN.	C2 IN.	L2* IN.
01			.75	1.22
02	.37	.84	1.13	1.59
03	.75	1.22	1.50	1.97
04	1.13	1.59	1.88	2.34
05	1.50	1.97	2.25	2.72
06	1.88	2.34	2.63	3.09
07	2.25	2.72	3.00	3.47
08	2.63	3.09	3.37	3.84
09	3.00	3.47	3.75	3.84
10	3.37	3.84	4.13	4.59
11	3.75	4.22	4.50	4.97
12	4.13	4.59	4.88	5.34
13	4.50	4.97	5.25	5.72
14	4.88	5.34	5.63	6.09
15	5.25	5.72	6.00	6.47
16	5.63	6.09	6.38	6.84
17	6.00	6.47	6.75	7.22
18	6.38	6.84	7.13	7.59
19	6.75	7.22	7.50	7.97
20	7.13	7.59	7.88	8.34
21	7.50	7.97	8.25	8.72
22	7.88	8.34	8.63	9.09
23	8.25	8.72	9.00	9.47
24	8.63	9.09	9.75	9.84
25	9.00	9.47	9.75	10.22
26	9.38	9.84	10.13	10.59
27	9.75	10.22	10.50	10.97
28	10.13	10.59	10.88	11.34
29	10.50	10.97	11.25	11.72
30	10.88	11.34	11.63	12.09
31	11.25	11.72	12.00	12.47
32	11.63	12.09	12.38	12.84
33	12.00	12.47	12.75	13.22
34	12.38	12.84	13.13	13.59
35	12.75	13.22	13.50	13.97
36	13.13	13.59	13.88	14.34



COMPUTING RSB BLOCK LENGTHS.

DIRECT MOUNTING – Use C1 & L1 for VP, SP, RP, HP mounting options

END POSITION MOUNTING – Use L2 & C2 for VM, SM, RM, VE, SE, RE mounting options

BUCHANAN

LR49571 E60980

0.375" PITCH
SERIES RSB6

ORDERING INFORMATION

RSB 6 R P 07 11 02 NN N N
A B C D E F G H I J

A Single Screw Tri-Barrier Strips RSB

B Contact Spacing
6=.375 in. (6/16)

C Mounting Position Options
 H= High Rise (Use only with #17 or #18 terminal option)
 R= Right-angle mounting, w/out bracket
 S= Right-angle mounting, with bracket
 V= Vertical Mounting

D End Contact Options
 E= Open end pos. with mounting inserts
 M= Open end positions
 P= All positions filled with contacts

E No. of Circuits (Not Positions)
 02 through 34 for M Option
 02 through 36 for P Option

F Terminal Style
 11=Solder Tail, V Mounting
 12=Circuit Board, V Mounting (select this option when block is to be used with RSB plug-in socket)
 13=Non-Feedthrough, R, S or V Mounting
 14=Solder Tail, R or S Mounting
 15=Circuit Board, R or S Mounting
 16=Machine Wrap, R or S Mounting
 17=Machine Wrap, V Mounting
 18=Circuit Board (for High Rise Mounting Position only)
 19=Extended Circuit Board, V Mounting
 20=Extended Circuit Board, R or S Mounting

G Top Hardware Options
 01=Bright zinc and chromate plated steel binding-head screw
 02=Bright zinc and chromate steel screw and captive clamp – Do not order in combination with other top hardware
 03=Stainless steel binding-head screw
 04=Nickel plated brass binding-head screw
 09=Nickel plated brass screw and captive clamp – Do not order in combination with other top hardware

H Quick-Connect Blades (supplied with 01 screw)

		.110 wide	.187 wide
		x.032	x.020
		thick	thick
	22		42=
	23		43=
	24		44=
	25		45=
	29		49=
	30		50=
	31		51=
	33		53=
	35		55=
	36		56=

Circuit Identification Options
 Request drawing #7013624 for complete information
 NN=No circuit identification

Front	Top
11	21 = 12345...
12	22 = ...54321
13	23 =
14	24 =
15	25 =
16	26 =
17	27 =
18	28 =

I Material
N= Polypropylene

J Color
N= Black

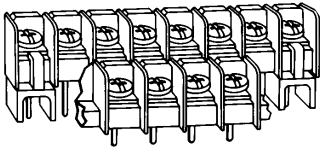


0.375" PITCH SERIES RSB6 FEATURES/OPTIONS

MOUNTING & CONTACT POSITION OPTIONS

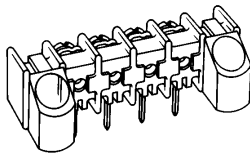
High-Rise, All Positions
Filled With Contacts

CATALOG CODE HP: Designed for high density; two rows deep when used in conjunction with a VP configuration.



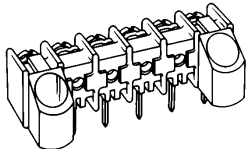
Right Angle, End Positions Blank

CATALOG CODES SM & RM: Used for right angle mounting when blank end sections are preferred.



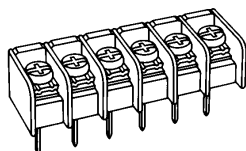
Right Angle, All Positions Filled
With Contacts

CATALOG CODES SP & RP: Can be used for right angle printed circuit board mounting without mounting brackets (RP); or panel mounting with brackets (SP).



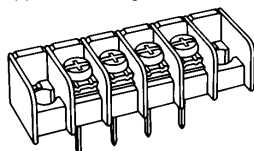
Vertical, Direct Mounting

CATALOG CODE VP: This configuration is frequently used on printed circuit boards where solder connections are used to fasten the block to the board.



Vertical, End Position Mounting

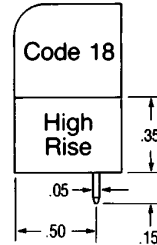
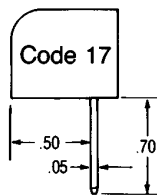
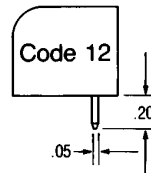
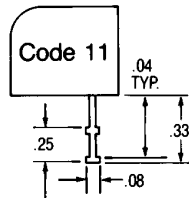
CATALOG CODE VM:
Used where end sections are needed for mounting. Thickness of base is sufficient to support mounting screws.



TERMINAL STYLE

Vertical Terminals

CATALOG NUMBER CODES 11, 12, 17 & 18:
Four terminal styles are available in the vertical mounting configuration. The Solder Tail (#11) for wrapped solder connections, the Circuit Board (#12, #18) for printed circuit boards, and the Machine Wrap (#17) for two level printed circuit boards or wrapped wire connections.



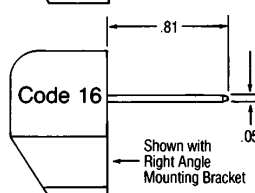
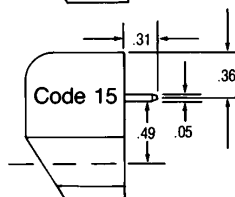
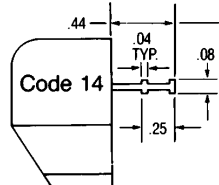
Non-Feed-Through

CATALOG NUMBER CODE 13:
Screw connection only. Used as panel mounted tie point.

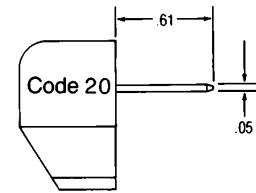
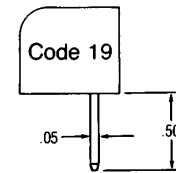


Right Angle Contacts


CATALOG NUMBER CODES 14, 15 & 16:
The Solder Tail (#14), Circuit Board (#15), and the Machine Wrap (#16) terminals are also available in the right-angle mounting configuration.




EXTENDED CIRCUIT BOARD



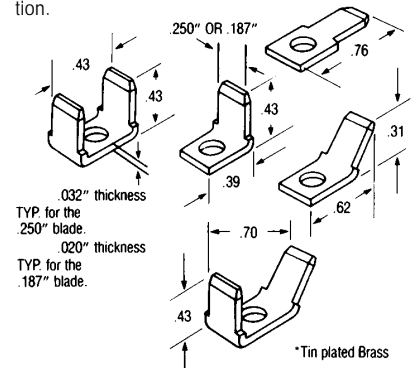
TOP HARDWARE OPTIONS:

Binding Head Screws 
Four Styles Available.

Captive Clamp
CATALOG NUMBER CODE: 02 & 09.
For applications requiring extra security, captive clamps under the screw heads augment the locking tabs on each contact. Screws have #8 pan head with a unique Phil-slot design accepting either Phillips-head or straight screwdriver. The body is #6 to allow use of larger wire. 

Quick Connects




CATALOG CODE BELOW: A selection of .187" and .250" quick connect blades with tin plated brass are available for connecting wire terminated with female quick-connects. They are available individually or in combination. See ordering information.

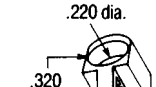


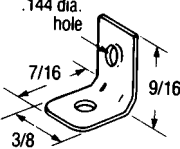
LR49571 E60980

BUCHANAN

0.375" PITCH SERIES RSB6 ACCESSORIES


DESCRIPTION	ORDER NUMBER
STEEL BINDING HEAD SCREWS Bright zinc and chromate plated	 L01
CAPTIVE CLAMP SCREW L02 is steel, bright zinc and chromate plated L09 is brass, nickel plated	 L02 L09
MOUNTING INSERTS for mounting RSBs with blank end sections, Nylon	 L91

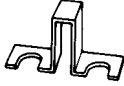
RIGHT ANGLE MOUNTING Nylon (accepts #6 or #8 round, phil-slot or pan-head screw)	 R94
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ANGLE BRACKET for mounting RSBs with right angle terminals, Copper alloy, tin plated	 L92
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Ordering Information

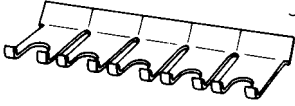
QUICK CONNECT BLADES	.250 WIDE	.187 WIDE
PACKAGES OF 100:	X .032 THICK	X .020 THICK
90°, Two-Sided	QC22	QC42
Flat, Single-Sided	QC23	QC42
45°, Single-Sided	QC24	QC44
90°, Single-Sided	QC25	QC45
90° -45°, Two-Sided	QC36	QC56

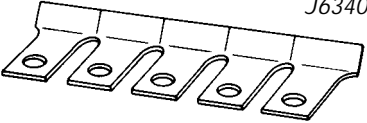
SOLDER TABS: For making top-side solder connections Single-Sided	 ST80
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JUMPERS, BRASS, TIN PLATED Two Circuit, Over the Barrier, Spade Type Jumper	 J74
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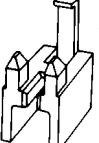
Two Circuit, Over the Barrier Ring Tongue Jumper	 J75
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Around the Barrier* Spade Jumper 40 circuits: snap apart to desired lengths	 J6140
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ORDER DESCRIPTION	ORDER NUMBER
Around the Barrier* Flanged Spade Jumper; 40 circuits: snap apart to desired lengths	 J6240

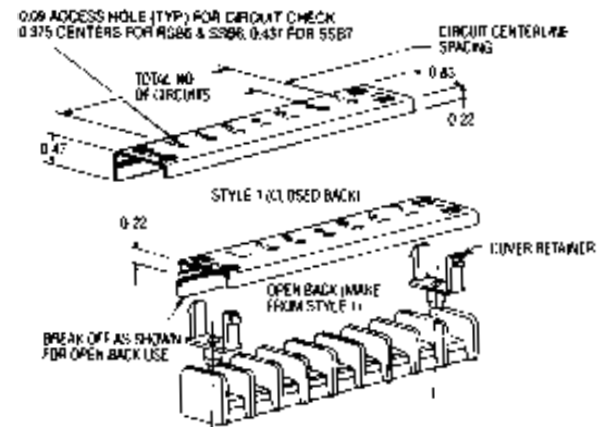
Around the Barrier* Ring Tongue Jumper 40 circuits: snap apart to desired lengths	 J6340
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*NOTE: Jumper extends 0.54 in. horizontally from center of screw.

HIGH RISE MOUNTING STANDOFFS Designed for high density; allows two rows of contracts on two levels when used with a VP mounting configuration	 HR95
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SAFETY COVERS (For RSB & SSB Barrier Strips)

Dead front protection prevents accidental contact with energized circuits. Access holes for test probes are provided over each terminal. Nylon clips are included with each cover. Covers meet UL94V-0, with 50°C temperature index. Black circuit identification is optional.



ORDERING INFORMATION

6	C	1	N	07
Centerline Dimensions 6=6/16 (3/8") 7=7/16	Cover Material C=Yellow PVC	Style 1=Closed Back	Circuit Identification N=No Markings F=Forward Sequence (as shown) R=Reverse Sequence	Number of Circuits (Use Two Digits) Max. for SSB6=30 Max. SSB7=25 Max. RSB6=34

BUCHANAN

0.375" PITCH SERIES BC6

PHYSICAL PROPERTIES

HOUSING MATERIAL: Polypropylene
FLAMMABILITY: UL94V-0
COLOR: Black

TERMINAL

TERMINALS: Bright acid tin over copper alloy
SCREWS: #6-32 steel, zinc plating with clear chromate coating. Wire clamping screw standard.

MECHANICAL

PITCH (TERMINAL SPACING): .375"
RECOMMENDED PCB HOLE DIA.: 1.8mm (.073")

ELECTRICAL PROPERTIES

MAXIMUM CURRENT: 20A
OPERATING VOLTAGE: 300V
WIRE RANGE: 12-22 AWG

ENVIRONMENTAL PROPERTIES

OPERATING TEMPERATURE RANGE: 105°C max.



BC6 SERIES

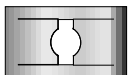
ORDERING INFORMATION

BC6 - P 1 08 - 08
A B C D

- A** Terminal Style
 P=Printed Circuit (available with 1,2,5 block style only)
 T=Solder Turret
 Q=Quick Connect
 W=Solderless Wrap
- B** Block Style
 1=Flat, all positions filled (standard)
 2=Flat, end mounting feet with holes (required for cover option)
 3=Insulating turret, end mounting feet with holes (required for cover option)
 4=Insulating turret, all positions filled
 5=Flat, end positions open with mounting bushings
- C** Screw Hardware
 07=Steel combo binder head screw
 08=Steel wire clamp combo head screw
- D** No. of Circuits (Not Positions)
 02 to 16 circuits

Retaining Clips

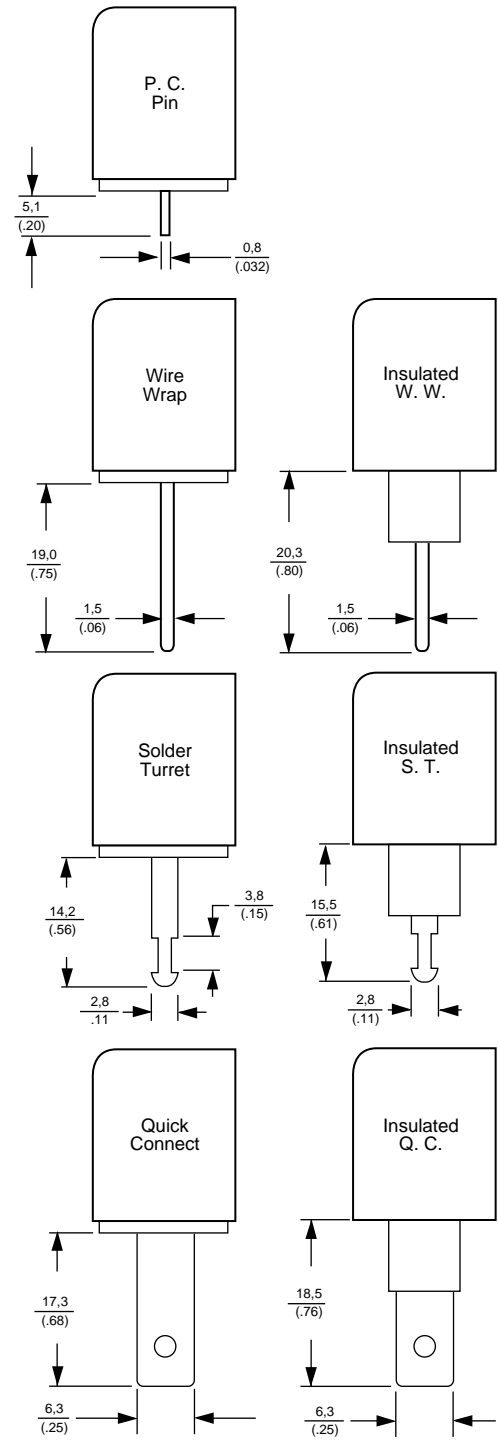
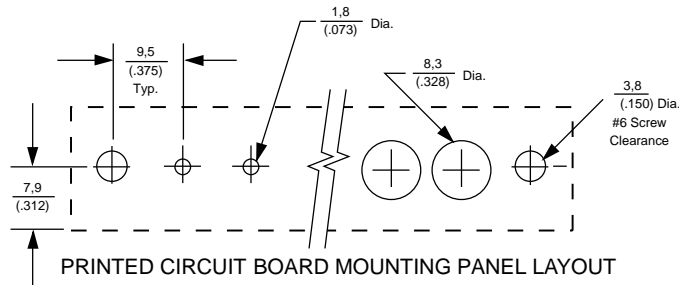
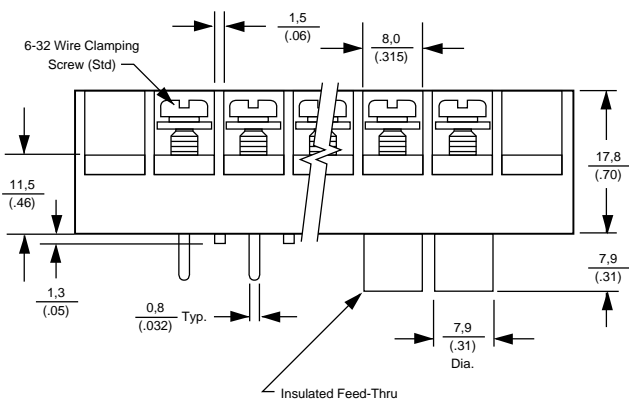
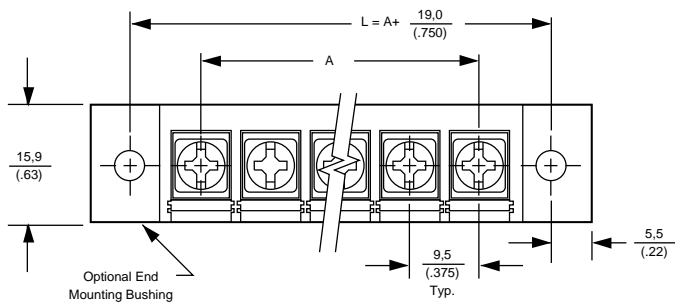
Spring metal retaining clips fit around insulating barrel to provide permanent mounting of blocks to panels without the need for mounting holes. Use two per block. Catalog # JC/BC-Retaining.



Bottom view

0.375" PITCH
BC6 SERIES

TERMINALS	A
2	(.375) 9,5
3	(.750) 19,1
4	(1.125) 28,6
5	(1.500) 38,1
6	(1.875) 47,6
7	(2.250) 57,1
8	(2.625) 66,7
9	(3.000) 76,2
10	(3.375) 85,7
11	(3.750) 95,2
12	(4.125) 104,8
13	(4.500) 114,3
14	(4.875) 123,8
15	(5.250) 133,3
16	(5.625) 142,9



0.375" PITCH
SERIES MB6
DOUBLE LEVEL

PHYSICAL PROPERTIES

HOUSING MATERIAL: Thermoplastic polyamide

FLAMMABILITY: UL94V-0

COLOR: Black

TERMINAL

TERMINALS: Bright acid tin over copper alloy
SCREWS: #6-32 steel, zinc plating with clear chromate coating. Wire clamping screw standard.

MECHANICAL

PITCH (TERMINAL SPACING): .375"

RECOMMENDED PCB HOLE DIA.: 1.8mm (.073")

ELECTRICAL PROPERTIES

MAXIMUM CURRENT: 25A

OPERATING VOLTAGE: 300V

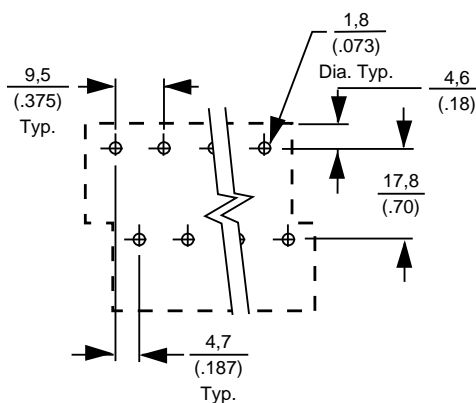
WIRE RANGE: 12-22 AWG

ENVIRONMENTAL PROPERTIES

OPERATING TEMPERATURE RANGE: 105°C max.



MB6-P108-##



Printed Circuit Board Layout

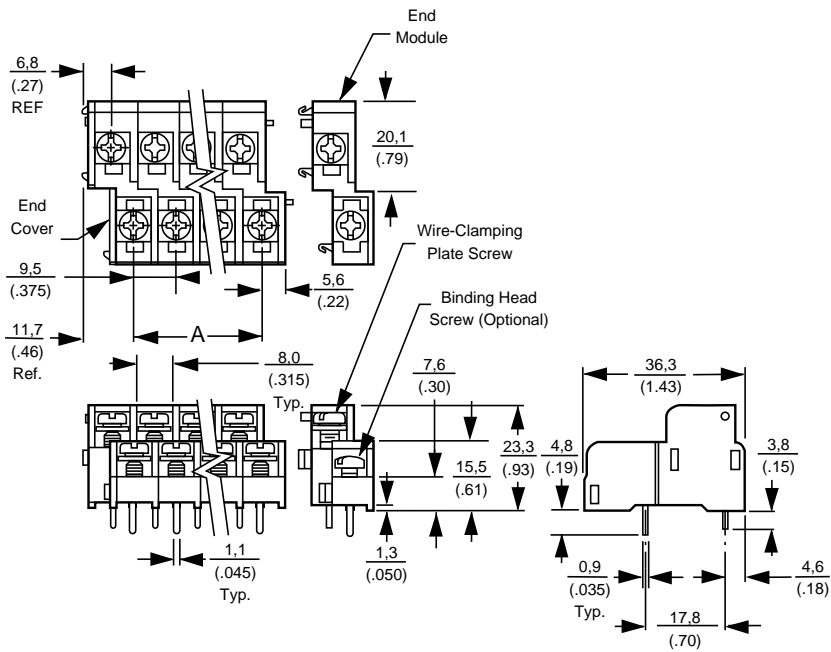
ORDERING INFORMATION

MB6 - P1 08 - 04
A B C D

- A Series
MB6=Double Level, 0.375" Centers
- B Terminal Style
P1=Printed Circuit Pin, Vertical
- C 07=Steel binding combo head screws
08=Steel clamp-plate combo head screws
- D 04 through 40 available in multiples of 2



0.375" PITCH
SERIES MB6
DOUBLE LEVEL



TERMINALS	A	TERMINALS	A
4	(.375) 9,5	24	(4.125) 104,8
6	(.750) 19,1	26	(4.500) 114,3
8	(1.125) 28,6	28	(4.875) 123,8
10	(1.500) 38,1	30	(5.250) 133,3
12	(1.875) 47,6	32	(5.625) 142,9
14	(2.250) 57,1	34	(6.000) 152,4
16	(2.625) 66,7	36	(6.375) 161,9
18	(3.000) 76,2	38	(6.750) 171,4
20	(3.375) 85,7	*40	(7.125) 181,0
22	(3.750) 95,2		

*Longer lengths available. Please consult factory.