

W23/W31 series

Toggle or Push/Pull Actuator Thermal P&B Circuit Breaker

AĽ (£.

Features

- 0.5 amp to 50 amp ratings may be used as on/off switch.
- · Cannot be reset against overload.
- W23 has visible trip indicator band.
- Screw termination.
- Trip-free operation.

Agency Approvals

W23 and W31 are UL 1077 Recognized as Supplementary Protectors. File E69543, and CSA Accepted as Supplementary Protectors (Appliance Component Protectors), File LR15734.

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Electrical Data @ +25°C

Calibration: Will continuously carry 100% of rating, may trip between 101% and 134% of rating at 25°C. Must trip at 135% in one hour.

Maximum Operating Voltages: 50VDC or 240VAC (to 400 Hz). Interrupting Capacity:

With 4X Max. Series Fuse Protection

0.5-50 amp models - 1000 amps at 240VAC. 30-50 amp models — 1000 amps at 50VDC.

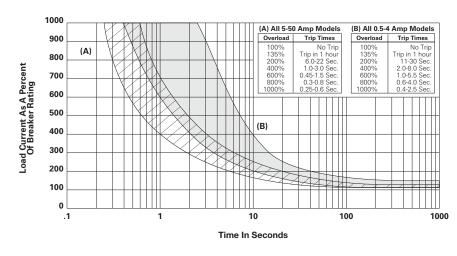
Without 4X Max. Series Fuse Protection

0.5-25 amp models - 2000 amps at 50VDC.

10-20 amp models — 2000 amps at 120VAC Resettable Overload Capacity: Ten times rated current.

Dielectric Strength: Over 1,500 volts RMS.

Time Vs. Current Trip Curve @ +25°C



Current Rating in Amps	Maximum Resistance in Ohms ± 30%				
1	.61				
5	.03				
10	.01				
15	.006				
20	.004				
30	.003				
40	.002				
50	.002				

Maximum Resistance vs. Current Rating @ +25°C

Mechanical/Environmental Data

Endurance Cycling: More than 6,000 cycles at 100% of rating, or 10,000 mechanical cycles.

Humidity: Will meet requirements of MIL-STD-202, Method 106 Salt Spray: Will meet requirements of MIL-STD-202, Method 101, Test Condition B

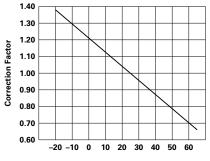
Termination: Two #8-32 screw terminals.

Mounting: W23 — Threaded bushing, 3/8" (9.53mm) diameter.

W31 - Threaded bushing, 15/32" (11.91mm) diameter, with or without anti-rotation flats.

Weight: Less than 2 oz. (57g).

Ambient Compensation Chart



Ambient Temperature In Degrees Centigrade (°C)

To use this chart: Read up from the ambient temperature to the curve, and across to find a correction factor. Multiply the breaker rating by the correction factor to determine the compensated rating. Calculate the overloads in terms of the compensated rating to use the published trip curve.

Dimensions are shown for 116 reference purposes only.

Specifications and availability subject to change.

₹ Tyco Electronics Ordering Information

					Typical Part No.	► W	23	-X	1	Α	1	G	-5
	Desigr W = Ci	nator: Sircuit bre	aker										
		Numbe Single pol	r: e, push/pull										
		t Functic eries trip	on:										
	Buttor 1 = Bla		white amp i	ate marking	g and white trip band.								
-	Manua									-			
		ting Bus 8"-24 thr		ing .375" (S	9.53mm) long, silver o	olor							
6.	A = 3/8 Termin 1 = Sci	8"-24 thr nals (Sec rew term	eaded bush e drawings ninals situate	for relativ ed 90° to ea	9.53mm) long, silver o e terminal positions ach other with #8-32 s to each other pointing): screws and wash			ers installed	I.			
6. 7.	A = 3/8 Termin $1 = Sci$ $3 = Sci$ Mount $A = Kn$ $G = Tw$	8"-24 thr nals (Sea crew term ting Hara nurled nur vo hex nu	eaded bush e drawings ninals situate ninals situta	for relatived 90° to eated parallel	e terminal positions ach other with #8-32 s to each other pointing): screws and wash			rs installed	I]		
6. 7. 8.	A = 3/8 Termin $1 = Sci 3 = Sci Mount A = Kn G = Tw Z = No Amp F$	8"-24 thr nals (Sec rew term rew term ting Hard nurled nur vo hex nu o mountir Rating:	eaded bush e drawings inals situate inals situate dware: t/hex nut in: ts/lockwasi ng hardware	for relativ ed 90° to e ed parallel stalled her installed supplied	e terminal positions ach other with #8-32 s to each other pointing): screws and wash			rs installed	I.			
6. 7. 8.	A = 3/8 Termin $1 = Sci$ $3 = Sci$ Mount $A = Kn$ $G = Tw$ $Z = No$	8"-24 thr nals (Sec erew term terew term ting Hard nurled nur vo hex nu o mountir	eaded bush e drawings hinals situate hinals situta dware: t/hex nut ins uts/lockwas	for relatived 90° to eated parallel	e terminal positions ach other with #8-32 s to each other pointing): screws and wash			rs installed	I.			

Ordering Information

				Туріса	al Part No.	►	W	31	-X	ζ.	2	Μ	1	G	-5
	gnator: Circuit brea	aker					1								
	es Numbe Single pole	r: e, toggle ac	tuator												
	uit Functio Series trip	on:													
1 = 1		hreaded bu	shing .320" shing .320"					or							
5. Togg		r motal tog	ale round w	with amo	rate marki	na on er	nd					L			
M =	Silver color	metal togg	gie, round, v	with amp		ng on oi	iu								
6. Term 1 = S	ninals (See Screw term	e drawing f	for relative ed 90° to ea ed parallel to	termina ach other	with #8-32	s): 2 screws	s and wasł			washe	rs instal	led.			
6. Tern 1 = S 5 = S 7. Mou A = H G = T	ninals (See Screw term Screw term Inting Hard Knurled nut Two hex nu	e drawing f inals situate inals situate dware: t/hex nut inf	for relative ed 90° to ea ed parallel to called ner installec	termina ach other o each ot	with #8-32	s): 2 screws	s and wasł			washe	rs install	led.			
 6. Term 1 = S 5 = S 7. Mou A = k G = 7 Z = N 8. Amp	ninals (See Screw term Screw term Inting Hard Knurled nut Two hex nu No mountin D Rating:	e drawing f inals situate inals situate dware: t/hex nut int its/lockwash g hardware	for relative ed 90° to ea ed parallel to talled her installec supplied	termina ach other o each of	with #8-32	s): 2 screws	s and wasł			washe	rs instal	led.			
6. Term 1 = 5 5 = 5 7. Mou A = k G = ⁻¹ Z = N	ninals (See Screw term Screw term Inting Hard Knurled nut Two hex nu No mountin	e drawing f inals situate inals situate dware: t/hex nut int its/lockwasl	for relative ed 90° to ea ed parallel to called ner installec	termina ach other o each ot	with #8-32	s): 2 screws	s and wasł			washe	rs instal	led.			

Stock Items – Authorized distributors are more likely to stock the following items. W31-X2M1G-35 W31-X2M1G-40

W31-X2M1G-50

W31-X2M1G-1	W31-X2M1G-10
W31-X2M1G-2	W31-X2M1G-15
W31-X2M1G-3	W31-X2M1G-20
W31-X2M1G-5	W31-X2M1G-25
W31-X2M1G-7.50	W31-X2M1G-30

≣ _{Tyco} Electronics W23 Outline Dimensions

Catalog 1308242 Issued 3-03 (PDF Rev. 12-08)

Terminal Style 1

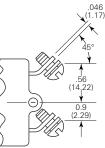
1.384

_.690 __ (17.53)

์5

#8-32 SCREWS WITH WASHERS RESET BUTTON IN "ON" POSITION WHITE INDICATOR NOT VISIBLE 3/8-24 THREADED BUSHING AMP RATING .250 45 (6.35) Ο .56 (14.2) ¥ .315 Dia. ¥ (8.00) .46 (11.7) ٨ .03 MAX. 388 (.76) (9.86) Ο 570 1.600 → (14.48) (40.64) 1.890 046 (48.01) (1.17) 2.035 (51.69)

Terminal Style 3



All dimensions are given as inches (mm)

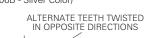
Mounting Hardware

Hex Nut (55-001D - Silver Color)



SULVE SULVE

220



.018

(.46)

.562 (14.27)



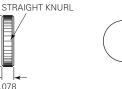
.562 (14.27)

.078 (1.98)

Suggested Mounting Holes

.375-.386

(9.53-9.80)

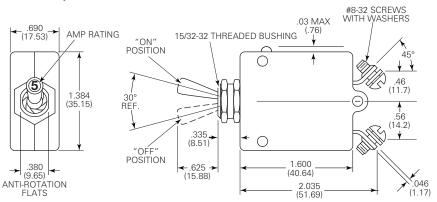


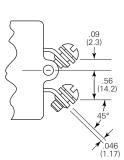
Terminal Style 5

085 545 .567 (2.16) (13.84 - 14.40)

W31 Outline Dimensions

Terminal Style 1

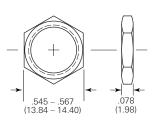




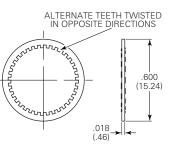
Suggested Mounting Holes

Mounting Hardware

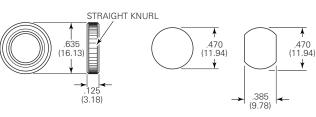
Hex Nut (55-001B - Silver Color)



Lockwasher (88-002B - Silver Color)



Knurled Nut (55-010B - Silver Color)



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