MATERIAL SPECIFICATIONS:

Contacts ..... Gold over nickel or silver plate
Case Material ..... Polyamide, black matte finish
Actuator Material ..... Polyamide
Terminals/Fixed Contacts ..... Copper alloy with gold or silver plate
Terminal Seal ..... Epoxy

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature ..... -4°F to +176°F (-20°C to +80°C)
Storage Temperature ..... -49°F to +199°F (-45°C to +93°C)

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating ..... 0.4 VA Max. @ 20 VDC or peak AC
3 A @ 125 VAC or 28 VDC (2 pos.) 2A
Initial Contact Resistance ..... 20 Milliohms max.
Contact Timing ..... Break-before-make
Insulation Resistance ..... 1,000 Megohms min.
Dielectric Strength ..... 500 Volts RMS @ sea level
Actuator Travel ..... 23°
Life Expectancy ..... 2 Pos. - 100,000 actuations
3 Pos. - 50,000 actuations
UL recognized under the Component Program of Underwriters Laboratories Inc. File #E46765

NOTE: Part numbering sequence page E4

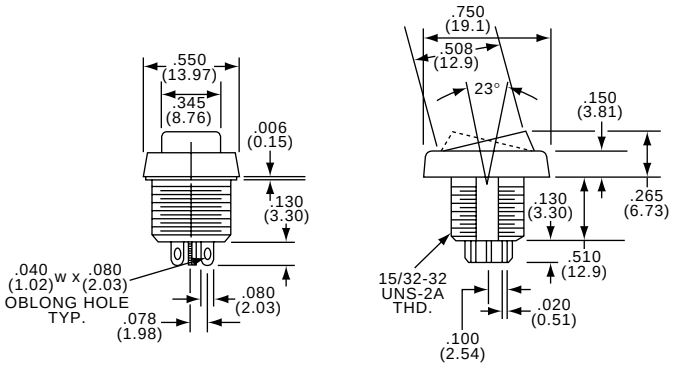
NOTE: When hand soldering, solder with switch in closed position. Solder temperature 550-600°F less than 5 seconds.

DPDT



TRD21N10WL

Standard Body Color - (Black)



Model	Type	Function	Act. Code Pg. M8	Contact	Terminal	Model	Type	Function	Act. Code Pg. M8	Contact	Terminal
TRD11D1(*)WL	SPDT	On None On	1	Gold	Wire Lug	TRD13D1(*)WL	SPDT	On None On	1	Silver	Wire Lug
TRD11E1(*)WL	SPDT	On Off On	5	Gold	Wire Lug	TRD13E1(*)WL	SPDT	On Off On	5	Silver	Wire Lug
TRD11F1(*)WL	SPDT	On None (On)	1	Gold	Wire Lug	TRD13F1(*)WL	SPDT	On None (On)	1	Silver	Wire Lug
TRD21N1(*)WL	DPDT	On None On	2	Gold	Wire Lug	TRD23N1(*)WL	DPDT	On None On	2	Silver	Wire Lug
TRD21P1(*)WL	DP3T	On Off On	6	Gold	Wire Lug	TRD23P1(*)WL	DP3T	On Off On	6	Silver	Wire Lug
TRD21R1(*)WL	DPDT	On None (On)	2	Gold	Wire Lug	TRD23R1(*)WL	DPDT	On None (On)	2	Silver	Wire Lug

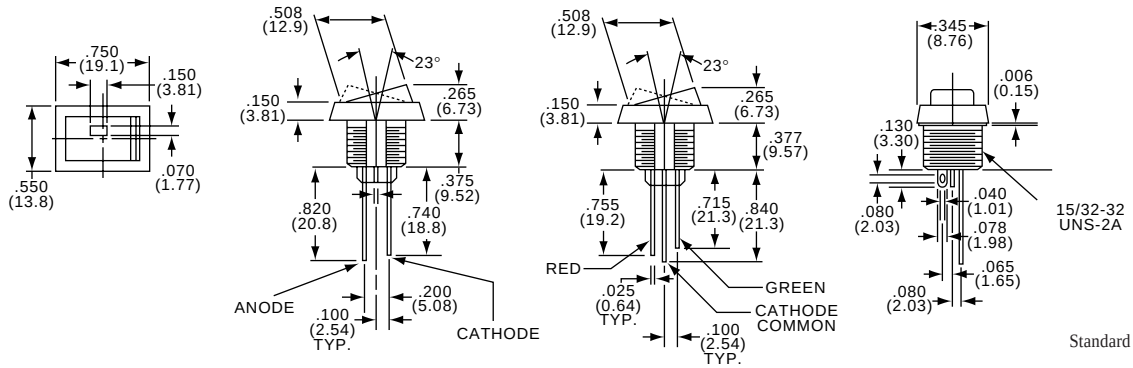
(*) Specify rocker color by adding suffix number: (0) Black (2) Red, (6) Blue (9) Yellow, (On) indicates momentary position.

SPDT



TRD11D10WLLR

Standard Body and Rocker Color - (Black)



Model	Type	Function	Act. Code Pg. M8	Contact	Terminal	Model	Type	Function	Act. Code Pg. M8	Contact	Terminal
TRD11D10WLLR(*)	SPDT	On None On	1	Gold	Wire Lug	TRD13D10WLLR(*)	SPDT	On None On	1	Gold	Wire Lug
TRD11E10WLLR(*)	SP3T	On Off On	5	Gold	Wire Lug	TRD13E10WLLR(*)	SP3T	On Off On	5	Gold	Wire Lug
TRD11F10WLLR(*)	SPDT	On None (On)	1	Gold	Wire Lug	TRD13F10WLLR(*)	SPDT	On None (On)	1	Gold	Wire Lug

(*) Specify LED color by adding suffix number: (2) Red, (4) Yellow, (5) Green, (25) Red/Green - Bi-color (On) indicates momentary position.

Need more technical information?

Consult your local Augat sales office listed on the back cover

AUGAT Inc.
452 John L. Dietsch Blvd.
Attleboro Falls, MA 02763 USA
(508) 699-9800 FAX (800) 533-2526

TRD Series *Rocker/Paddle • How To Order*

MATERIAL SPECIFICATIONS:

Movable Contacts ..... Copper alloy w/silver inlay contact or gold plate
Terminals/Fixed Contacts ..... Copper alloy w/silver inlay contact or gold plate
Terminal Seal ..... Epoxy
Housing/Beveled Frame ..... Polyamide, black matte finish

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature ..... -4°F to +176°F (-20°C to +80°C)
Storage Temperature ..... -49°F to +199°F (-45°C to +93°C)
Solder Heat Resistance ..... Meets MIL-STD-202, method 210

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating ..... Silver: 3A max. @ 125 VAC, option 3
Gold: 0.4VA max. @ 20 VDC, option 1
Initial Contact Resistance ..... 20 Milliohms max.
Static Withstanding ..... 15KV, per IEC 801-2
Insulation Resistance ..... 1,000 Megohms min. @ 500 VDC
Dielectric Strength ..... 500 Volts RMS @ sea level
Electrical Life 2 Pos. 20K cycles @ full rated 3A load, 80K @ 0.4VA, 3 pos. 10K cycles @ full rated 3A load, 60K @ 0.4VA

***NOTICE: Caution should be used when hand-soldering. Solder heat Resistance -550°-600°F for less than 5 seconds. Solder with the switch in the closed position.**

UL recognized under the Component Program of Underwriters Laboratories Inc. File #E46765

E

HOW TO ORDER

See pages M2-M4 for application specific indexing.

Model
- TRD1 — Single Pole
- TRD2 — Double Pole

Contact Rating
- 1 — Gold 0.4VA
- 3 — Silver 3A

Function
- Single Pole: D on-on; E on-off-on; F on-(on); G (on)-off-(on); H on-off-(on)
- Double Pole: N on-on; P on-off-on; R on-(on); S (on)-off-(on); T on-off-(on)

Actuator
- 1 — Rocker
- 2 — Paddle

Actuator Color
- 0 — black
- 2 — red
- 6 — blue
- 9 — yellow

Terminal
- WL — Wire Lug
- WW — Wire Wrap
- QC — Quick Connect
- PC — Printed Circuit

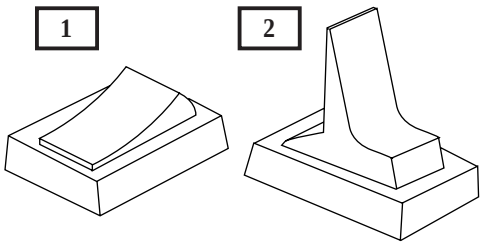
Mount
- (blank) — 15/32" round hole
- 5 — 1/2" square hole

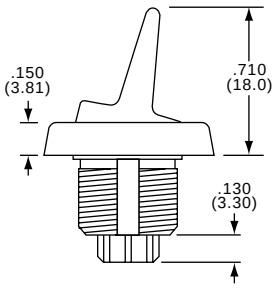
L.E.D. Illumin.
- L — Beveled frame adaptor
- LR — Integral w/rocker (TRD 1 only)

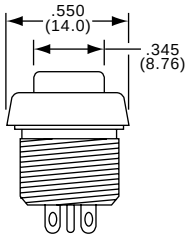
L.E.D. Color
- (blank) None
- Option L
- 2 — red
- 4 — yellow
- 5 — green
- 25 — bi-color red/green

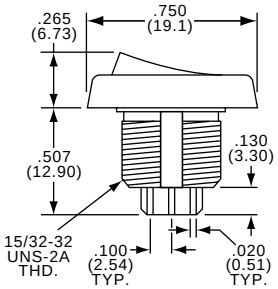
***UL**
- Functions: Silver only D, F, N, & R
- Terminations Functions only WL, WW or QC only

ACTUATORS





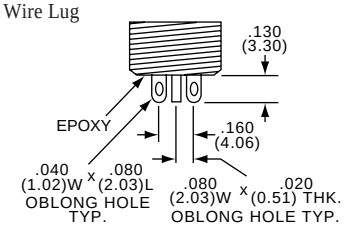




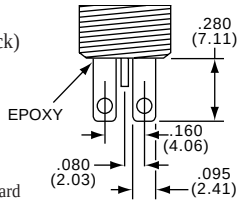
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(508) 699-9800 FAX (800) 533-2526

TERMINATIONS
(Epoxy seal standard)

WL
Wire Lug

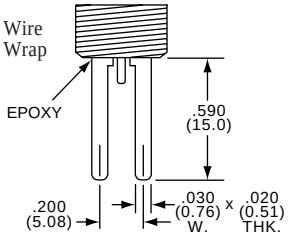


QC
Quick Connect
.110" (.020 thick)

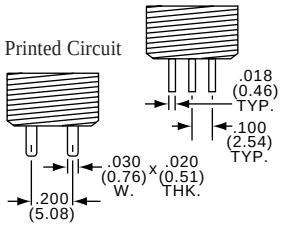


Mates with standard
.110" female connectors

WW
Wire
Wrap

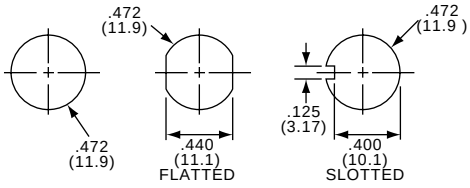


PC
Printed Circuit



15/32" HOLE STANDARD
Standard TRD bushing will mount in any hole shown below.

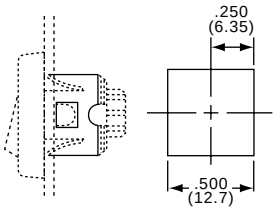
Recommended panel thickness:
.030" to .250"
One hex nut, one internal tooth lock-washer supplied.



5 1/2" SQUARE CUTOUT SNAP-IN ADAPTOR

Recommended panel thickness:
.030" to .125"

Material: bright stainless steel
To specify adaptor separately, use P/N **TRD10793**



E

CONTACTS/RATING/UL RECOGNITION

1 0.4VA Max. @ 20 VDC

Movable Contact:	Copper alloy, gold plate
Fixed Contact/Terminal:	Copper alloy, gold plate

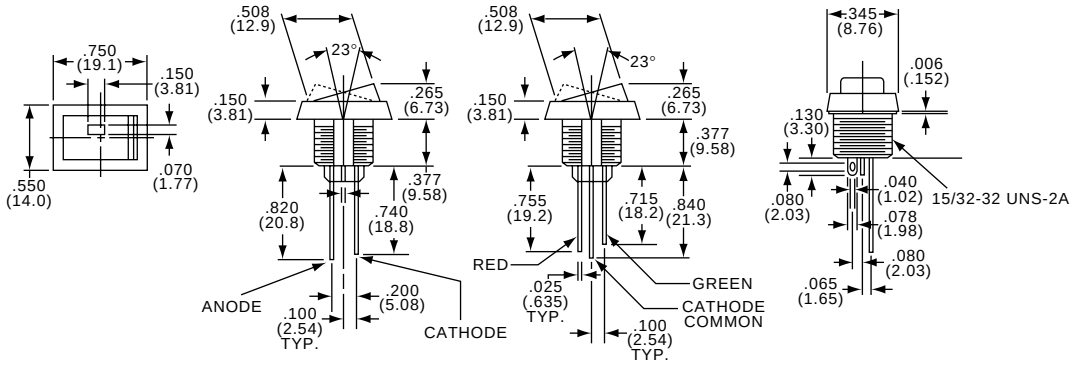
3 3A Max. @ 125 VAC

Movable Contact:	Copper alloy, silver inlay
Fixed Contact/Terminal:	Copper alloy, silver inlay

UL For contact option 3
Rating: 3A, 120 VAC(Resistive)
File: E46765
Underwriters Laboratories, Inc. marking stamped under beveled frame.

L.E.D. ILLUMINATION - SINGLE AND BI-COLOR

LR **L.E.D. Integral (Rocker Actuator) All SPDT functions**



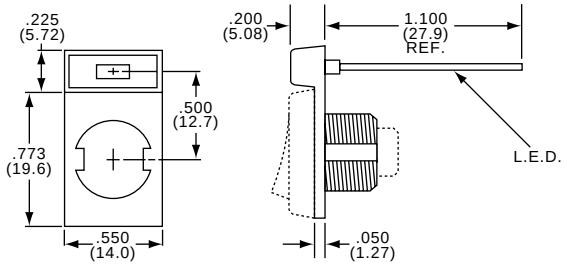
Standard mounting dimensions apply, L.E.D. supplied in **2** red, **4** yellow, **5** green, or **25** red/green.
L.E.D. Specifications: Max Voltage: 2.8 VDC
Max. Forward Current: red-20mA, Yellow-25 mA, green-25 mA, red/green-40 mA.

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L L.E.D. BEVELE FRAME ADAPTOR

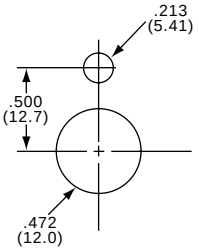
(Accepts rectangular L.E.D.)



Material: Nylon 6/6
Color/Finish: Black, matte

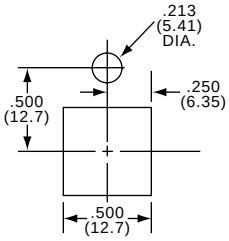
MOUNTING

15/32" HOLE STANDARD



Recommended Panel Thickness: .030 to .220:

1/2" SQUARE CUTOUT



Recommended Panel Thickness: .030 to .095"

E

FUNCTIONS



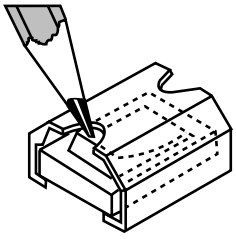
Single Pole	Double Pole	123 456	123 456	123 456
D	N	On	None	On
E	P	On	Off	On
F	R	On	None	(On)
G	S	(On)	Off	(On)
H	T	On	Off	(On)
SPDT Terminals Connected		2-3	---	1-2
DPDT Terminals Connected		2-3 5-6	--- ---	1-2 4-5

None No mechanical position

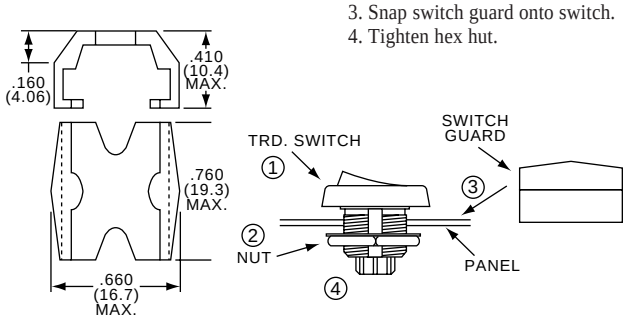
Off Mechanical position, no electrical connection

(On) Momentary mechanical position, electrical connection

SWITCH GUARD

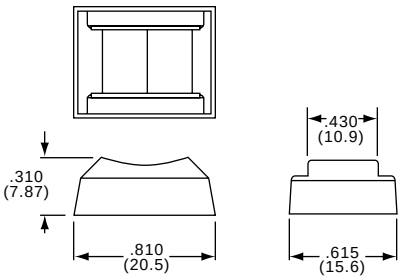


1. Insert switch in panel.
2. Attach lockwasher and hexnut.
3. Snap switch guard onto switch.
4. Tighten hex hut.



Recommended Panel Thickness:
15/32" hole standard - .030 to .220
15/32" square cutout - .030 to .095
Material: Nylon 6/6 **Color/Finish:** Black matte, Specify separately, P/N **TRD10979**

ROCKER BOOT SEAL



To specify boot seal use P/N **TRD11494**

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