

Rocker Switch **TRD Series**

For Additional Options Refer to Page E4-E6

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:

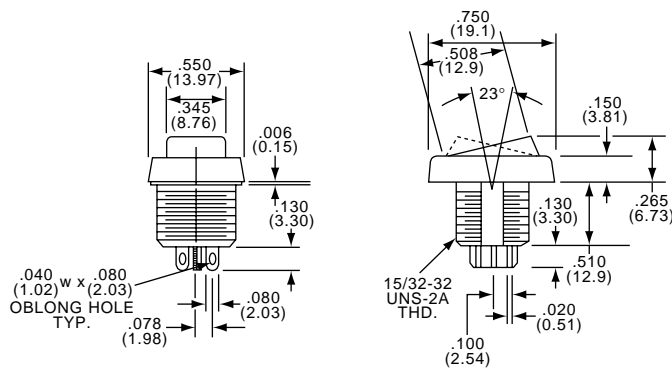
Operating Temperature -4°F to +176°F (-20°C to +80°C)
 Storage Temperature -49°F to +199°F (-45°C to +93°C)

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



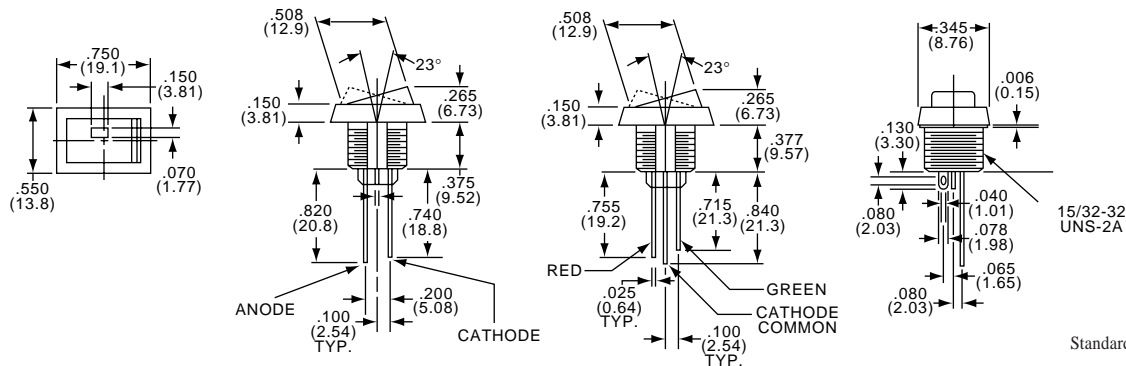
TRD21N10WL

Standard Body Color - (Black)

E

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

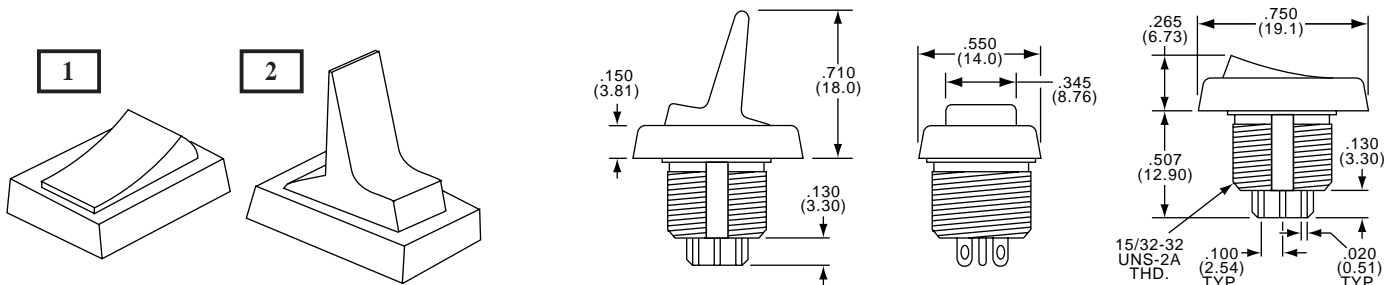
HOW TO ORDER

See pages M2-M4 for application specific indexing.

E

Model	Contact Rating	Function	Actuator	Actuator Color	Terminal	Mount	L.E.D. Illumin.	L.E.D. Color	*UL
TRD1 Single Pole	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)		1 Rocker 2 Paddle	WL Wire Lug WW Wire Wrap QC Quick Connect PC Printed Circuit		L Beveled frame adaptor LR Integral w/rocker (TRD 1 only)		L None 2 red 4 yellow 5 green 25 bi-color red/green	
TRD2 Double Pole									
1 Gold 0.4VA									
3 Silver 3A									
15/32" round hole									
5 1/2" square hole									

ACTUATORS

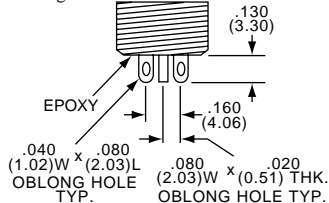


How To Order • Rocker/Paddle **TRD Series**

TERMINATIONS (Epoxy seal standard)

WL

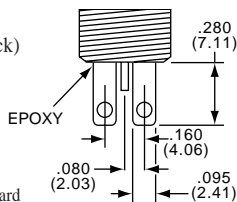
Wire Lug



QC

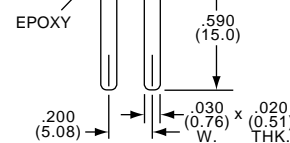
Quick Connect
.110" (.020 thick)

Mates with standard
.110" female connectors



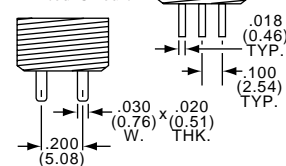
WW

Wire Wrap



PC

Printed Circuit

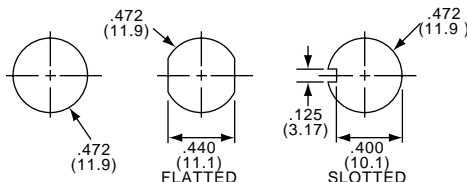


15/32" HOLE STANDARD

Standard TRD bushing will mount in any hole shown below.

Recommended panel thickness:
.030" to .250"

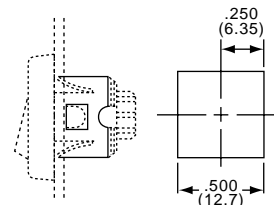
One hex nut, one internal tooth lock-washer supplied.



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



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

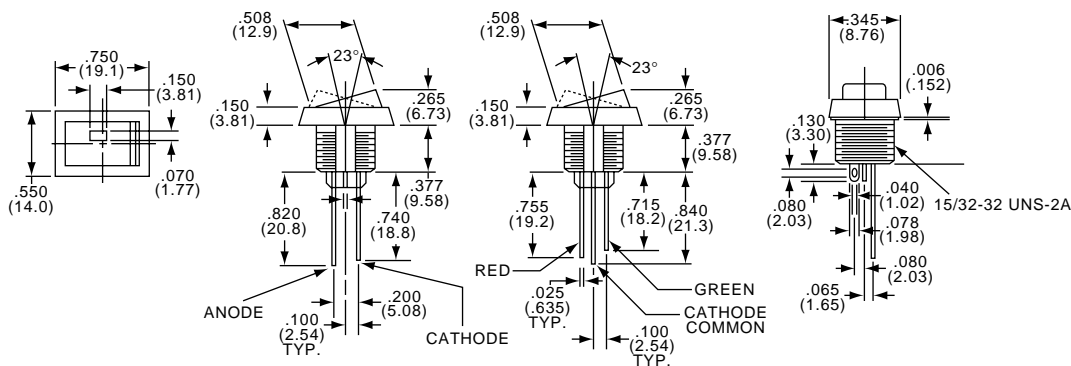
UL

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.

Need more technical information?

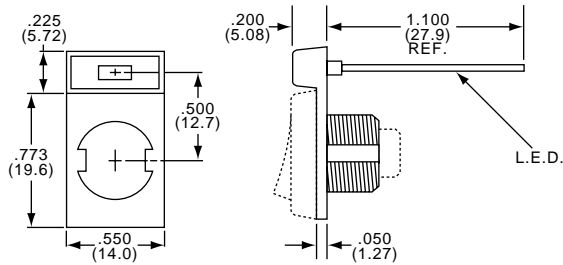
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E5

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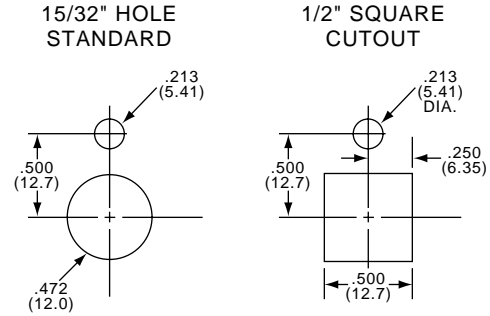
TRD Series *Rocker/Paddle • How To Order*

L L.E.D. BEVELE FRAME ADAPTOR (Accepts rectangular L.E.D.)



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

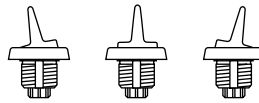
MOUNTING



Recommended Panel Thickness: .030 to .220:

Recommended Panel Thickness: .030 to .095"

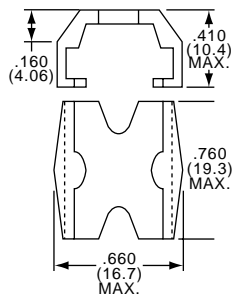
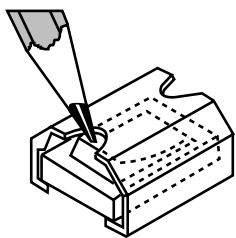
E FUNCTIONS



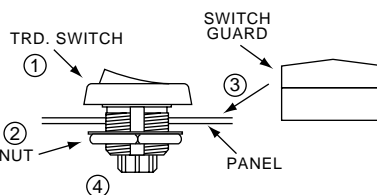
Single Pole	Double Pole	123 456	123 456	123 456
D	N	On	None	On
E	P	On	Off	On
F	R	On	None	(On)
G	S	(On)	Off	(On)
H	T	On	Off	(On)
SPDT Terminals Connected		2-3	---	1-2
DPDT Terminals Connected		2-3 5-6	---	1-2 4-5

- None** No mechanical position
- Off** Mechanical position, no electrical connection
- (On)** Momentary mechanical position, electrical connection

SWITCH GUARD



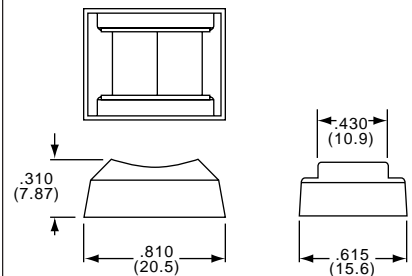
1. Insert switch in panel.
2. Attach lockwasher and hexnut.
3. Snap switch guard onto switch.
4. Tighten hex nut.



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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