

# 3500 series

High performance toggle switches •  
environmentally sealed



## DISTINCTIVE FEATURES

- Completely sealed switches withstanding 0.1 bar pressure
- Approved to European standards CECC 96000
- Three types of terminals
- Many lever styles available



## ENVIRONMENTAL SPECIFICATIONS

- Front sealing to IP67 or IP69K by a silicone membrane (for sealed panel mounting, add washer U60).
- Rear sealing to IP64 provided by moulded-in terminal inserts
- Operating temperature : -40 °C to + 85°C (-40 °F to +185 °F)
- Moisture resistance : 56 days



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load and electrical life at full load: see table below
- Initial contact resistance : 10 mΩ max. at 1 A 2 VDC
- Insulation resistance : 1,000 MΩ
- Dielectric strength : 2,500 Vrms 50 Hz min. between terminals  
3,000 Vrms 50 Hz min. between terminals and frame

FUNCTIONS	GENERAL PERFORMANCES
ON-OFF and ON-ON	10,000 cycles, T20 °C 15 A 28 VDC resistive 15 A 28 VDC inductive 5 A 28 VDC lamp
ON OFF ON	10,000 cycles, T20 °C 15 A 28 VDC resistive 15 A 28 VDC inductive 5 A 28 VDC lamp
OTHER FUNCTIONS	10,000 cycles, T20 °C 15 A 28 VDC resistive 10 A 28 VDC inductive 3 A 28 VDC lamp

The company reserves the right to change specifications without notice.



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## GENERAL SPECIFICATIONS

- Mechanical life : 40,000 cycles
- Torque : 2 Nm (1.47 Ft.lb) max. applied to nut
- Panel thickness :  
 For NON-SEALED mounting (panel cut-out fig. 1, 2 or 3) :  
 5 mm (.196) max.  
 For SEALED mounting (panel cut-out fig. 2) :  
 4 mm (.157) max.



## MATERIALS

- Case : mineral filled polyester UL94-V0
- Bushing and cover : zamac
- Actuator : brass, nickel or chrome plated, or anodized aluminum
- Contacts : silver alloy

## AGENCY APPROVAL



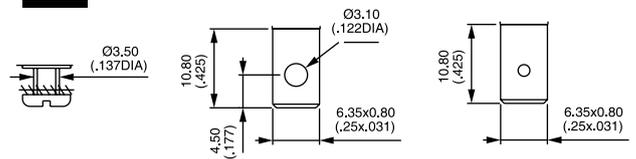
CECC 96201-004

**Availability** : consult factory for details of approved models.

**Marking** : to order switches marked CECC, complete appropriate box of ordering format.

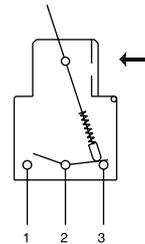


## TERMINALS



## ELECTRICAL FUNCTIONS

→ KEYWAY



## PANEL CUT-OUT

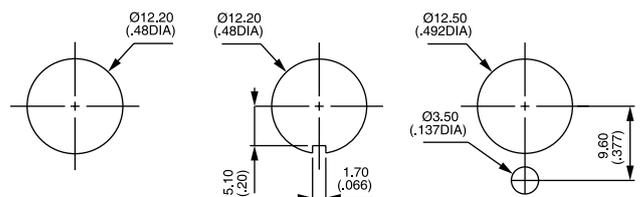


Figure 1

Figure 2

Figure 3

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## BUILD YOUR PART NUMBER

### BASIC PART NUMBER

SERIES	NUMBER OF POLES	ELECTRICAL FUNCTIONS	TERMINALS
35			
3	Single pole	1-0 ON - OFF	0 Screw
4	Double pole	2-0 ON - m.OFF	2 Solder lug/quick-connect
		3-0 OFF - MOM	3 Normalized quick-connect
		4-1 ON <sup>3</sup> ON <sup>4</sup> ON ▲	4 Screw + clamp
		4-2 ON <sup>3</sup> ON <sup>4</sup> MOM ▲	
		4-3 MOM <sup>3</sup> ON <sup>4</sup> MOM ▲	
		4-4 ON <sup>1</sup> ON <sup>6</sup> ON ▲	
		4-5 ON <sup>1</sup> ON <sup>6</sup> MOM ▲	
		4-6 MOM <sup>1</sup> ON <sup>6</sup> MOM ▲	
		5-0 ON - MOM	
		6-0 ON - ON	
		7-0 MOM OFF MOM	
		8-0 ON OFF MOM	
		9-0 ON OFF ON	

▲ Function 4 : double pole only

### OPTIONS

LEVER FINISH	AGENCY APPROVAL	LOCKING LEVER SPECIAL FINISH
N Bright nickel	0 None	(blank) None
B Satin chrome	1 CECC	P5 Painted yellow
G* Black		A6 Anodized red
F* Black with fluorescent tip (lever type 1 only)		Order with lever finish type C. Other colors : on request.
C Painted or anodized		

\*Black finish on bushing too.

LEVER STYLES	LEVER LOCKING STYLES	ACCESSORIES
1 Standard, length 17.5 mm (.688) or locking, length 20 mm (.787)	0 No locking	0 2 hex nuts, 1 locking ring and 1 lockwasher (non-sealed mounting)
2 Length 30 mm (1.181)	A Locked in 3 positions	2 2 hex nuts and 1 sealing washer (sealed mounting)
3 Flatted, length 24 mm (.944)	D Locked out of center position	
4 Length 40 mm (1.574)	G Locked in keyway side	
5 Length 50 mm (1.968)	See drawings on the following pages.	
6 Locking, length 25.4 mm (1.000)		



## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- ⚠ **Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- 🛡 **Switch guards** are available to prevent inadvertent lever operation. See "Switch Guards" section of website.
- 🔧 **Mounting accessories** : see above and on the following pages.

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## SCREW TERMINALS SINGLE POLE



	Angle of throw (A)	III A2-A3	II	I
3531-00	22°	ON	-	OFF
3532-00	22°	ON	-	m.OFF
3533-00	22°	OFF	-	MOM
3535-00	22°	ON	-	MOM
3536-00	22°	ON	-	ON
3537-00	22°	MOM	OFF	MOM
3538-00	30°	ON	OFF	MOM
3539-00	30°	ON	OFF	ON

## SCREW TERMINALS DOUBLE POLE



	Angle of throw (A)	III A2-A3 B5-B6	II *A3-B5 **A1-B5	I A1-A2 B5-B4
3541-00	22°	ON	-	OFF
3544-10	22°	ON	ON*	ON
3544-20	22°	ON	ON*	MOM
3544-30	22°	MOM	ON*	MOM
3545-00	22°	ON	-	MOM
3546-00	22°	ON	-	ON
3547-00	22°	MOM	OFF	MOM
3548-00	30°	ON	OFF	MOM
3549-00	30°	ON	OFF	ON

## SOLDER LUG/QUICK-CONNECT TERMINALS SINGLE POLE



	Angle of throw (A)	III A2-A3	II	I
3531-02	22°	ON	-	OFF
3532-02	22°	ON	-	m.OFF
3533-02	22°	OFF	-	MOM
3535-02	22°	ON	-	MOM
3536-02	22°	ON	-	ON
3537-02	22°	MOM	OFF	MOM
3538-02	30°	ON	OFF	MOM
3539-02	30°	ON	OFF	ON

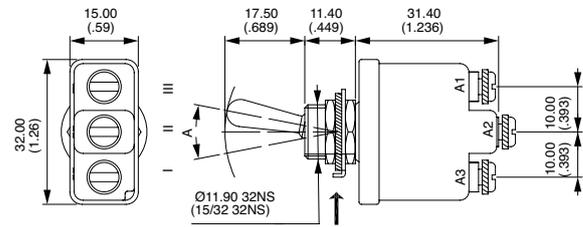
## SOLDER LUG/QUICK-CONNECT TERMINALS DOUBLE POLE



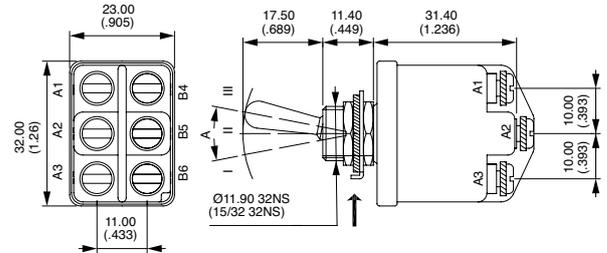
	Angle of throw (A)	III A2-A3 B5-B6	II *A3-B5 **A1-B5	I A1-A2 B5-B4
3541-02	22°	ON	-	OFF
3544-12	22°	ON	ON*	ON
3544-22	22°	ON	ON*	MOM
3544-32	22°	MOM	ON*	MOM
3545-02	22°	ON	-	MOM
3546-02	22°	ON	-	ON
3547-02	22°	MOM	OFF	MOM
3548-02	30°	ON	OFF	MOM
3549-02	30°	ON	OFF	ON

→ KEYWAY

Shown with standard lever

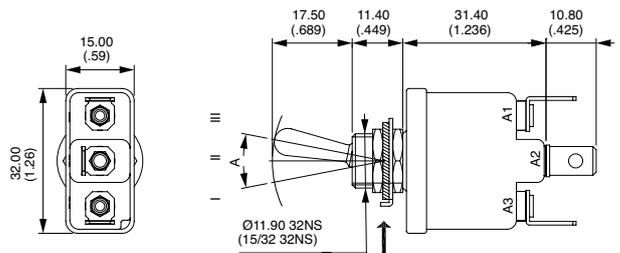


→ KEYWAY

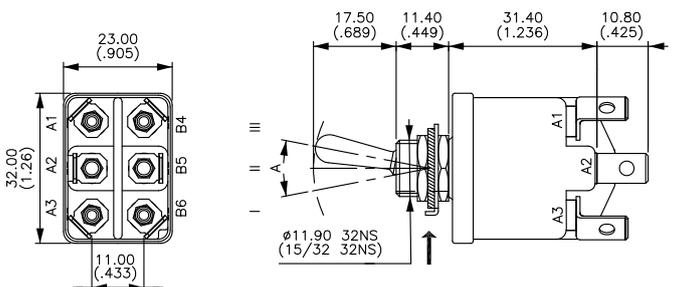


Also available in functions ON-m.OFF and OFF-MOM.

→ KEYWAY



→ KEYWAY



Also available in functions ON-m.OFF and OFF-MOM.

\*and\*\* : A2-B4 and A2-B6 = jumper to be wired by the user.

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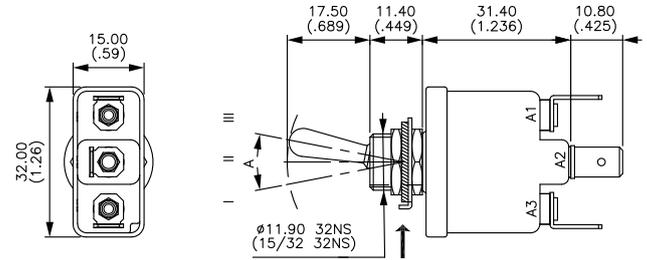
## NORMALIZED QUICK-CONNECT TERMINALS SINGLE POLE



	Angle of throw (A)	III A2-A3	II	I A1-A2
3531-03	22°	ON	-	OFF
3532-03	22°	ON	-	m.OFF
3533-03	22°	OFF	-	MOM
3535-03	22°	ON	-	MOM
3536-03	22°	ON	-	ON
3537-03	22°	MOM	OFF	MOM
3538-03	30°	ON	OFF	MOM
3539-03	30°	ON	OFF	ON

→ KEYWAY

Shown with standard lever

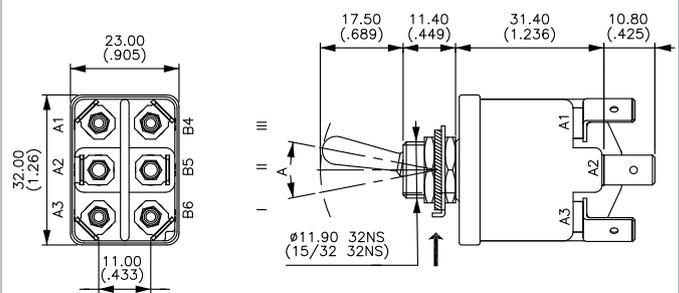


## NORMALIZED QUICK-CONNECT TERMINALS DOUBLE POLE



	Angle of throw (A)	III A2-A3 B5-B6	II *A3-B5 **A1-B5	I A1-A2 B5-B4
3541-03	22°	ON	-	OFF
3544-13	22°	ON	ON*	ON
3544-23	22°	ON	ON*	MOM
3544-33	22°	MOM	ON*	MOM
3545-03	22°	ON	-	MOM
3546-03	22°	ON	-	ON
3547-03	22°	MOM	OFF	MOM
3548-03	30°	ON	OFF	MOM
3549-03	30°	ON	OFF	ON

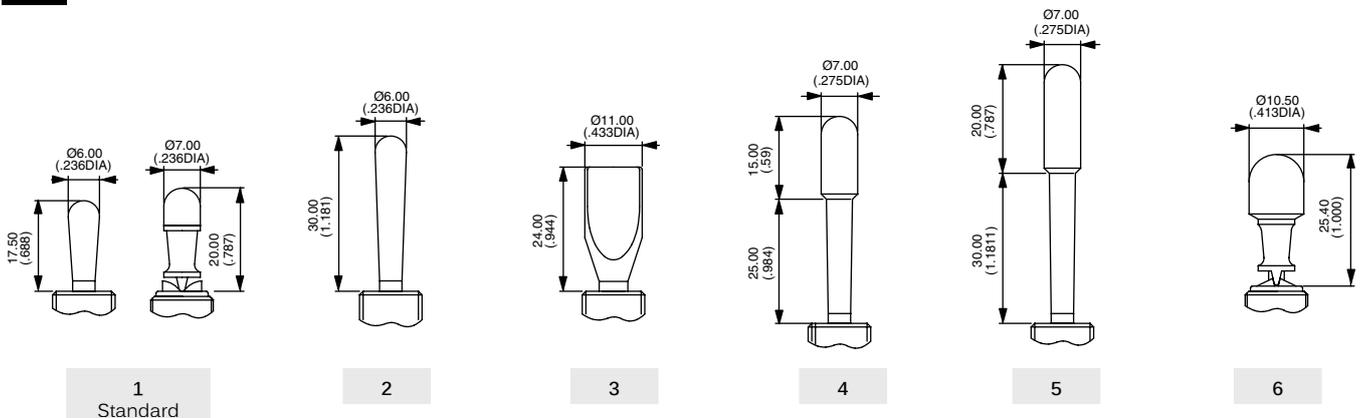
→ KEYWAY



Also available in functions ON-m.OFF and OFF-MOM.

\*and\*\*: A2-B4 and A2-B6 = jumper to be wired by the user.

## LEVER STYLES



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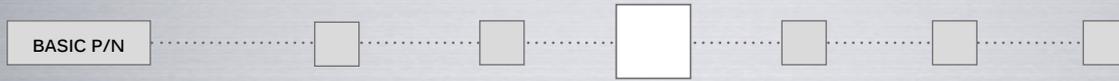
## LEVER FINISH



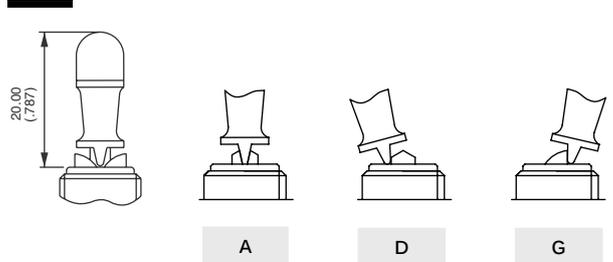
- N Bright nickel
- B Satin chrome
- G\* Black
- F\* Black with fluorescent tip (available with lever type 1 only)
- C Painted or anodized (for locking lever only)

\* Black finish on bushing too.

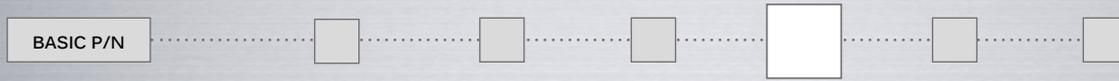
## LOCKING LEVER STYLES



- 0 No locking
- A Locked in 3 positions. For functions 4-1, 4-4 and 9-0.
- D Locked out of center position. For functions 1-0 and 6-0.
- G Locked in keyway. For functions 1-0 and 6-0.

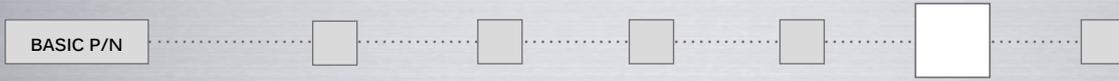


## AGENCY APPROVAL



- 0 None
- 1 CECC

## MOUNTING ACCESSORIES



- 0 For NON-SEALED mounting (panel cut-out fig. 1, 2 or 3)  
2 hex nuts 14 mm (.551) across flats, 1 locking ring U121 or U12, 1 lockwasher U13  
Panel thickness : 5 mm (.196) max.
- 2 For SEALED mounting (panel cut-out fig. 2)  
2 hex nuts 14 mm (.551) across flats and 1 sealing washer U60  
Panel thickness : 4 mm (.157) max.

**Special hardware** : black cap nut U129. Order separately. See "Hardware" section of website.

## LOCKING LEVER SPECIAL FINISH



- (blank) None
  - P5 Painted yellow
  - A6 Anodized red
- Order with lever finish type C.  
Other colors on request.

# Mouser Electronics

Authorized Distributor

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## Apem:

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[3537021N000](#) [3538001N000](#) [3538021N000](#) [3539001N000](#) [3539021N000](#) [3541001N000](#) [3541021N000](#)  
[3546001N000](#) [3547001N000](#) [3547021N000](#) [3548001N000](#) [3549001N000](#) [3531001G000](#) [3531001GD00](#)  
[3531001ND00](#) [3531003N000](#) [3531033G000](#) [3533001N000](#) [3533001N010](#) [3533003N000](#) [3533003N012](#)  
[3535001N000](#) [3536001ND00](#) [3537001N012](#) [3537003N000](#) [3539003N000](#) [3539005N000](#) [3541001N002](#)  
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[3536004G000](#) [3549001GA12](#) [3544603N002](#) [3531001GD02](#) [3531041ND00](#) [3531003B012](#) [3541031G012](#)  
[3541021GD02](#) [3545001G012](#) [3545003N002](#) [3536003N002](#) [3537-001G002 X2309](#) [3531001G002](#) [3541001G012](#)  
[3541001G002](#) [3531023N002](#) [3531031N002](#) [3541001GD02](#) [3533001G002](#) [3544221N000](#) [3546021G002](#)  
[3539022G00](#) [3549001BA00](#) [3549021NA02](#) [3544121N000](#) [3539022B00](#) [3546021N000](#) [3548021N000](#) [3549021N000](#)  
[3531003G002](#) [3531001N012](#) [3531001BD10](#) [3531001FG00](#) [3531006BD02](#) [3531021G002](#) [3531021N002](#)  
[3531021ND02](#)