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 m $\Omega$  max. at 1 A 2 VDC
- Insulation resistance : 1,000  $M\Omega$
- 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	
OTHER FUNCTIONS	15 A 28 VDC resistive 10 A 28 VDC inductive	

The company reserves the right to change specifications without notice.





High performance toggle switches • environmentally sealed



#### **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

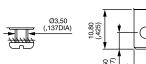


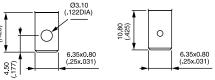
CECC 96201-004

Availability: consult factory for details of approved models. Marking: to order switches marked CECC, complete appropriate box of ordering format.



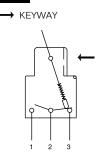
### **TERMINALS**





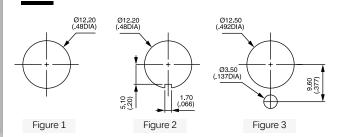


#### **ELECTRICAL FUNCTIONS**





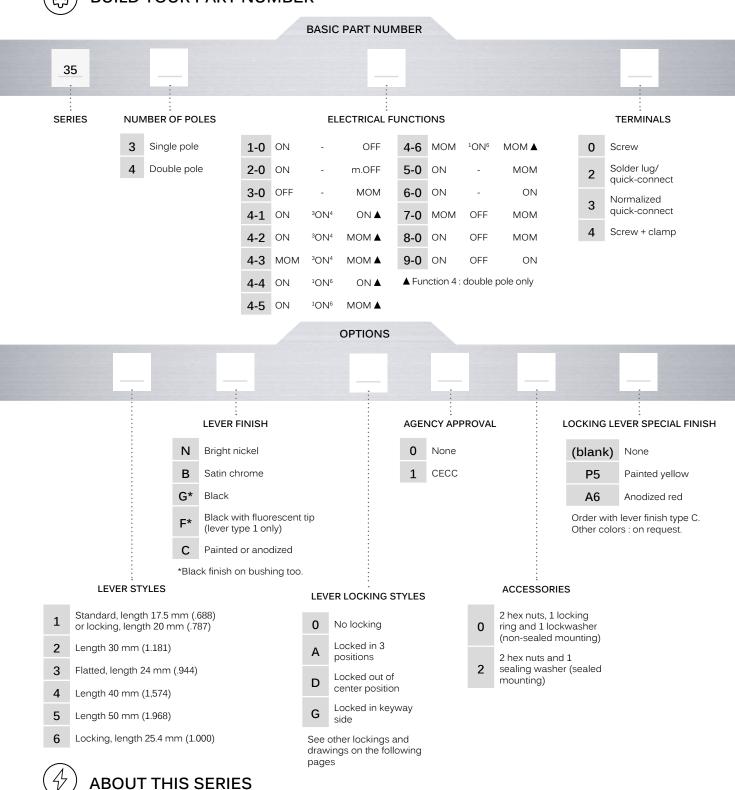
## PANEL CUT-OUT



High performance toggle switches • environmentally sealed



### **BUILD YOUR PART NUMBER**



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.
- $(\Diamond)$ Switch guards are available to prevent inadvertent lever operation. See "Switch Guards" section of website
- Mounting accessories: see above and on the following pages.

High performance toggle switches • environmentally sealed

## SCREW TERMINALS SINGLE POLE



	Angle of throw (A)	III A2-A3	II	A1-A2
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)	111 A2-A3 B5-B6	*A3-B5 **A1-B5	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	A1-A2
22°	ON	-	OFF
22°	ON	-	m.OFF
22°	OFF	-	MOM
22°	ON	-	MOM
22°	ON	-	ON
22°	MOM	OFF	MOM
30°	ON	OFF	MOM
30°	ON	OFF	ON
	throw (A) 22° 22° 22° 22° 22° 30°	throw (A) A2-A3 22° ON 22° ON 22° OFF 22° ON 22° ON 22° ON 30° ON	throw (A)

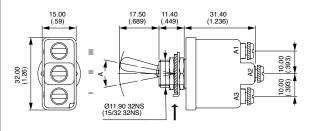
## SOLDER LUG/QUICK-CONNECT TERMINALS DOUBLE POLE



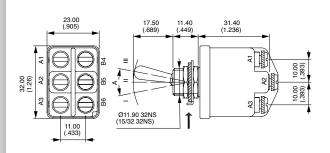
-	<b>E</b>	Angle of throw (A)	III A2-A3 B5-B6	II *A3-B5 **A1-B5	A1-A2 B5-B4
	3541-02	22°	ON	-	OFF
	3544-12	22°	ON	$ON^*$	ON
	3544-22	22°	ON	ON*	MOM
ì	3544-32	22°	MOM	ON*	MOM
	3545-02	22°	ON	-	MOM
	3546-02	22°	ON	-	ON
	3547-02	22°	MOM	OFF	MOM
	3548-02	30°	ON	OFF	MOM
	3549-02	30°	ON	OFF	ON

#### - KEYWAY

#### Shown with standard lever

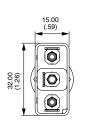


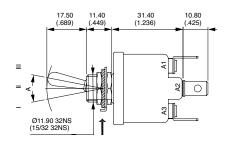
#### → KEYWAY



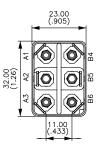
Also available in functions ON-m.OFF and OFF-MOM.

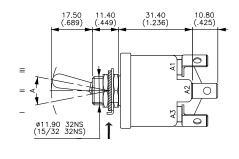
#### → KEYWAY





#### → KEYWAY





Also available in functions ON-m.OFF and OFF-MOM. \*and\*\* : A2-B4 and A2-B6 = jumper to be wired by the user.

High performance toggle switches • environmentally sealed

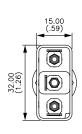
#### NORMALIZED QUICK-CONNECT TERMINALS SINGLE POLE

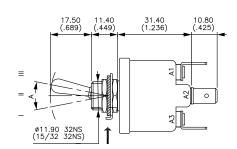


	Angle of throw (A)	III A2-A3	II	I A1-A2
3531-03	22°	ON	-	OFF
3532-03	22°	ON	-	m.OFF
3533-03	22°	OFF	-	MOM
3535-03	22°	ON	-	MOM
3536-03	22°	ON	-	ON
3537-03	22°	MOM	OFF	MOM
3538-03	30°	ON	OFF	MOM
3539-03	30°	ON	OFF	ON

#### → KEYWAY

#### Shown with standard lever



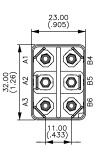


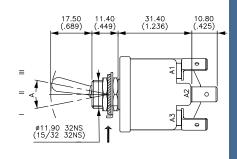
## NORMALIZED QUICK-CONNECT TERMINALS



.E		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



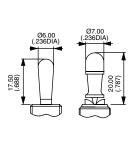




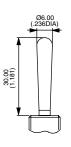
Also available in functions ON-m.OFF and OFF-MOM. \*and\*\*: A2-B4 and A2-B6 = jumper to be wired by the user.

#### LEVER STYLES

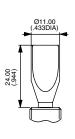
BASIC P/N

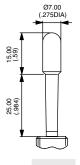


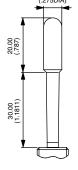




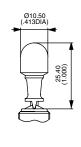
2







5



6

High performance toggle switches • environmentally sealed

#### LEVER FINISH

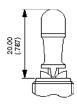
BASIC P/N

- 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)

#### LOCKING LEVER STYLES

BASIC P/N

- 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.



\* Black finish on bushing too.



4-1 / 4-4 / 9-0 Locked in 3 positions



D 1-0 / 6-0 Locked out of center position



E 4-1 / 4-4 / 9-0 Locked in center position



4-3 / 4-6 / 7-0 Locked in center position



E 4-2 / 4-5 / 8-0 Locked in center position



2-0 / 3-0 / 5-0 Locked in side opposite keyway



1-0 / 6-0 Locked in side opposite keyway



1-0 / 6-0 Locked in keyway side



9-0 Locked out of center and keyway side



K
4-2 / 4-5 / 8-0
Locked in center and side opposite keyway



M 4-1 / 4-4 / 9-0 Locked out of and into side opposite keyway



M 4-2 / 4-5 / 8-0 Locked out of and into side opposite keyway

High performance toggle switches • environmentally sealed



N 4-3 / 4-6 / 7-0 Locked out of side opposite



P
4-1 / 4-4 / 9-0
Locked out of and into keyway side



R 8-0 Locked in side opposite keyway



4-1 / 4-4 / 9-0 Locked in keyway side



U 4-1 / 4-4 / 9-0 Locked in side opposite keyway

# AGENCY APPROVAL

0 None1 CECC

BASIC P/N

#### MOUNTING ACCESSORIES

BASIC P/N

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.
 For SEALED mounting (panel cut-out fig. 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 BASIC P/N Order with lever finish type C

(blank) NoneP5 Painted yellowA6 Anodized red

Order with lever finish type C. Other colors on request.