# ATS Series Anti-Tampering Detect Switches





## **Specifications**

Function	Momentary action
Contact Type	SPST normally closed
Terminals	Gullwing type for SMT

# **Mechanical Specifications**

Switching Force	≤ 2 N
Travel to Break	0.7 mm
Total Travel	1.1 mm
Packaging	Switches are delivered on continuous tape, in reels of 2,000 pieces

#### **Electrical Specifications**

	Gold Silver		
Max. Power	0.2 VA	1 VA	
Min./Max. Voltage	20 mVDC - 32 VDC		
Min./Max. Current	1 μA - 10 mA	1 mA - 50 mA	
Contact Resistance	≤ 350 mΩ		
Insulation Resistance	> 1 G Ω		
Dielectric Strength	≥ 250 Vrms		

# **Description**

When designers of security and anti-tamper systems – as often seen in smart meters and similar products – need an anti-tampering switch, they turn to C&K's ATS series of anti-tampering switches. ATS switches are IP54 sealed to withstand harsh environments and feature vertical detect and a normally closed function.

# **Features & Benefits**

- Normally closed function
- Vertical detect
- Reliable long time compression
- IP54
- Tape & reel
- RoHS compliant and compatible

# **Applications**

- Smart meters
- Alarm systems
- Anti-tamper devices

## **Environmental Specifications**

	Gold	Silver
Operating Temperature	-40°C to 125°C	-40°C to 85°C
Storage Temperature	-55°C to 125°C	-40°C to 85°C

#### **Process**

Soldering	Compatible with lead free
	reflow process

#### Notes:

Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.



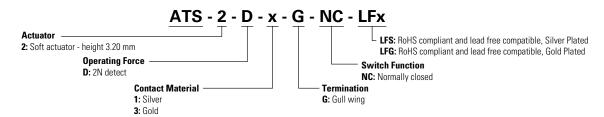
# **ATS Series**

# Anti-Tampering Detect Switches



## **Ordering Number**

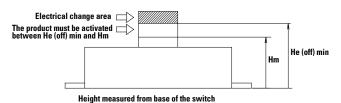
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box. For any part number different from those listed above, please consult your local representative.



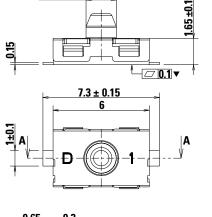
#### **Series**

Marking	Part Number
D-1	ATS 2D1G NC LFS
D-3	ATS 2D3G NC LFG

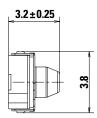
#### Characteristics

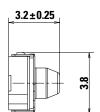


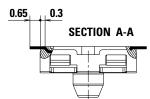
#### Dimensions (in mm)



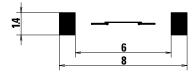
 $\emptyset 1.9 \pm 0.2$ 







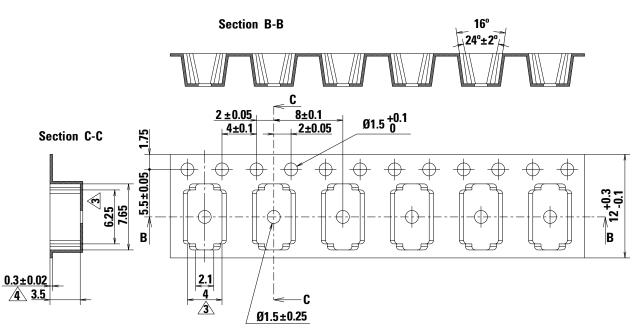
# **Recommended PCB layout**

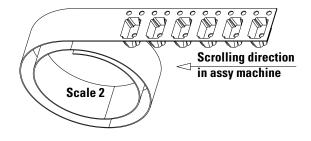


Min. Activation Height (Hm)	Max. Force at Hm = 6N Switch damage can occur if product is actuated below minimum actuation height (Hm)	2.1 mm
Min. Electrical Height (He (OFF) min)	Product height for contact opening Contact closing: the switch must be completely release	2.5 mm



Tape & Reel (in mm)





#### Notes:

- 1. 10 sprocket hole pitch cumulative tolerance ± 0.2mm
   2. Carrier camber not to exceed 1 mm in 1000 mm
- 3. Dimension 6.25 and 4 measured on a plane 0.3 mm above the bottom of the pocket
- 4. Dimension 3.5 measured from a plan on the inside bottom of the pocket to the top surface of the carrier
- 5. Angle is not marked: 3°



