

TFS Series

Splash Proof Mid Size Snap-acting Switches



Agency Approvals

Agency	Agency File Number
	E42363
	ENEC-03368

Specifications

Contact Rating/ Electrical Life	0.1A @ 125/250 V AC	10,000 operations
	3A @ 125/250 VAC	10,000 operations
	6A @ 125/250 VAC	10,000 operations
	10A @ 125/250 VAC	10,000 operations
Electrical Operating Frequency	10-30 operations per min.	
Mechanical Life	1,000,000 operations	
Mechanical Operating Frequency	120 operations per min.	
Insulation Resistance	(at 500 VDC/minute) 100 M ohm min.	
Dielectric Strength	1500 VAC (50-60 Hz)	
Operating Temperature	-40°C to 85°C (with no icing)	
Operating Force	200 grams	

Description

The TFS series are perfect for alarm devices, home security systems, air conditioners and food processors because of their reliability in the face of repeated use and difficult conditions. With a reliable snap action mechanism, TFS series splash proof mid size snap-acting switch offers designers the low cost/high-performance mix they need to be successful.

Features & Benefits

- Reliable snap action mechanism
- Low cost - high performance
- RoHS compatible
- IP40

Applications

- Alarm devices / Home security
- Air conditioner
- Food processor
- Water heaters
- Industrial
- Forklifts

Materials

Case	Nylon
Cover/Actuator	PBT
Movable Contacts	Silver alloy
Terminals	Brass
Lever	Stainless steel
Wire	PVC+CU

Notes:

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

Ordering Number

TFS - xx - x - xxx - 40 - x - x

Electrical Rating:
See Table Below

Actuating Force
 0 grams
 50 grams
 100 grams
 150 grams
 200 grams

Actuator Lever
Fixed
P00: Pin plunger
T10: Lever, high force
T20: Lever, low force
A05: Lever roller - high force, short lever
A10: Lever roller - high force
A20: Lever roller - low force
A25: Lever roller - low force, short lever

Mounting Hole Size
None: 3.1 mm (3 mm screw clearance hole)
S: 2.9 mm (4-40 screw clearance hole)

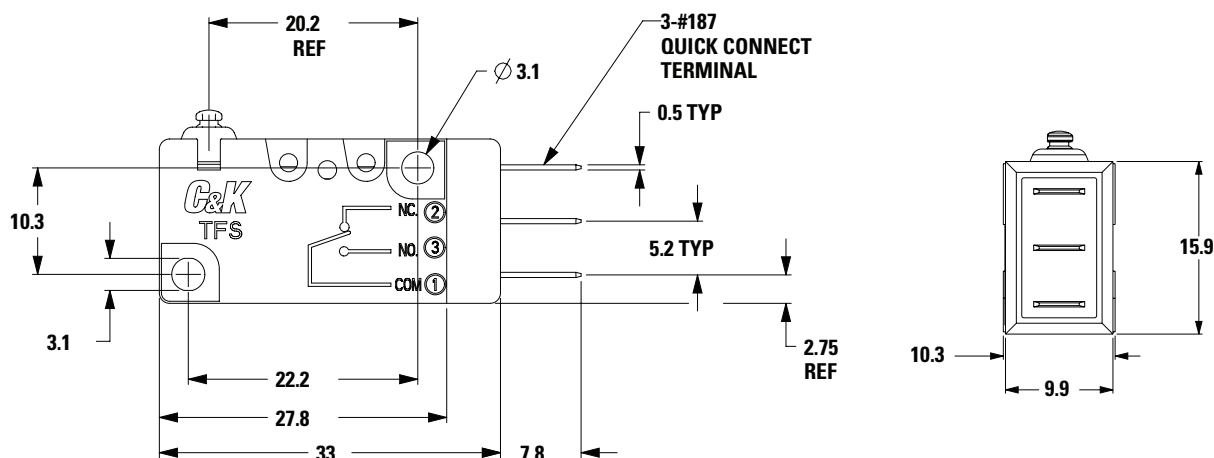
Circuit Arrangement
C: SPDT
W: SPST N.C.
Y: SPST N.O.

Terminal Type
40: 0.187" quick connect

Electrical Rating	AMPS (grams)	Operating Force				
		S (200)	D (50)	J (100)	L (150)	H (300)
01	0.1	●	●	●	●	●
03	3	●	●	●	●	●
06	6	●	●	●	●	●
10	10	●	X	X	X	●

TFS Series

Mid Size Snap-Acting Switches



TFS Series

Splash Proof Mid Size Snap-acting Switches



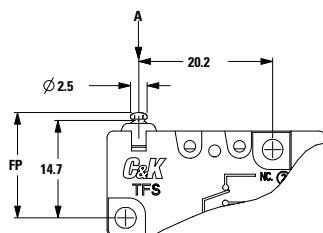
Electrical Rating

Option Code	RoHS Compliant	RoHS Compatible	Electrical Rating
10	Yes		10A @ 125/250 V AC / 10,000 operations
06	Yes		6A @ 125/250 VAC / 10,000 operations
03	Yes		3A @ 125/250 VAC / 10,000 operations
01	Yes		0.1A @ 125/250 VAC / 10,000 operations

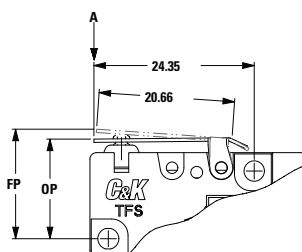
Operating Force

Option Code	Basic Switch Operating Force (grams)
S	200 grams
D	50 grams
J	100 grams
L	150 grams
H	300 grams

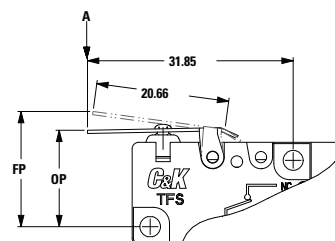
P00 Push Button



Actuator T10 Lever, High Force



T20 Lever, Low Force



Note: Measure at Point "A"

Max. Operating Force	200 grams
Min. Release Force	30 grams
Operating pos. OP	14.7 ± 0.4 mm
Max. movement diff.	0.4 mm
Min. over travel OT	1.0 mm
Max. pre-travel PT	1.2 mm

Max. Operating Force	160 grams
Min. Release Force	25 grams
Operating pos. OP	15.1 ± 0.6 mm
Max. movement diff.	0.6 mm
Min. over travel OT	1.1 mm
Max. pre-travel PT	2.6 mm

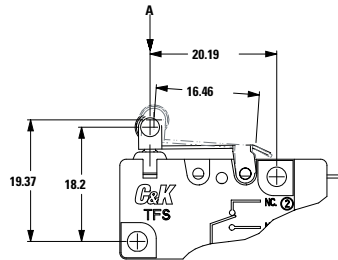
Max. Operating Force	90 grams
Min. Release Force	10 grams
Operating pos. OP	15 ± 1.1 mm
Max. movement diff.	1.1 mm
Min. over travel OT	1.2 mm
Max. pre-travel PT	5.1 mm

TFS Series

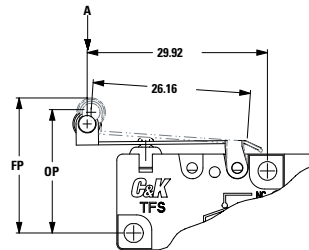
Splash Proof Mid Size Snap-acting Switches



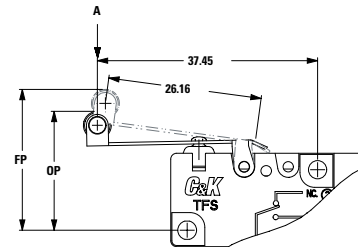
A05 Lever Roller, High Force, Short Lever



A10 Lever Roller, High Force



A20 Lever Roller, Low Force



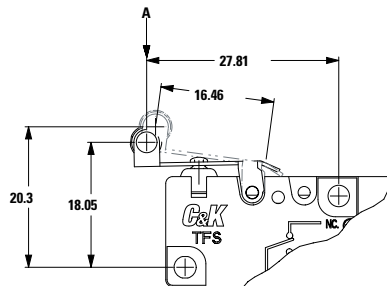
Note: Measure at Point "A"

Max. Operating Force	200 grams
Min. Release Force	30 grams
Operating pos. OP	20.6 ± 0.5 mm
Max. movement diff.	0.5 mm
Min. over travel OT	1.0 mm
Max. pre-travel PT	2.1 mm

Max. Operating Force	130 grams
Min. Release Force	20 grams
Operating pos. OP	20.4 ± 0.7 mm
Max. movement diff.	0.7 mm
Min. over travel OT	1.3 mm
Max. pre-travel PT	3.3 mm

Max. Operating Force	70 grams
Min. Release Force	10 grams
Operating pos. OP	20.2 ± 1.2 mm
Max. movement diff.	1.4 mm
Min. over travel OT	1.5 mm
Max. pre-travel PT	6.5 mm

A25 Lever Roller, Low Force, Short Lever



Note: Measure at Point "A"

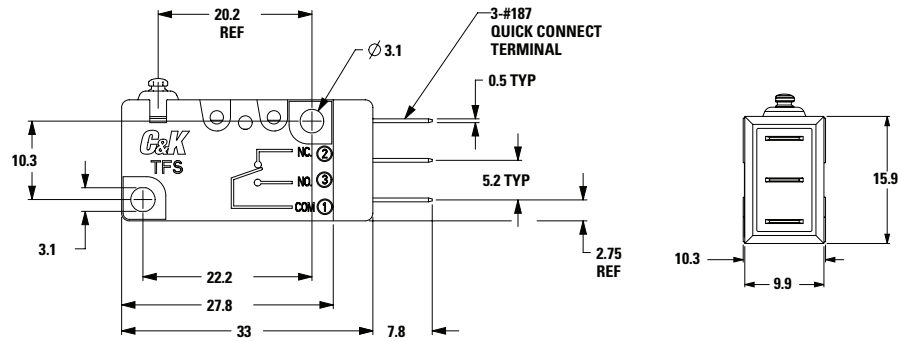
Max. Operating Force	200 grams
Min. Release Force	30 grams
Operating pos. OP	20.6 ± 0.5 mm
Max. movement diff.	0.5 mm
Min. pre-travel PT	2.1 mm
Max. over travel OT	1.0 mm

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Terminal Type 40 0.187" Quick Connect

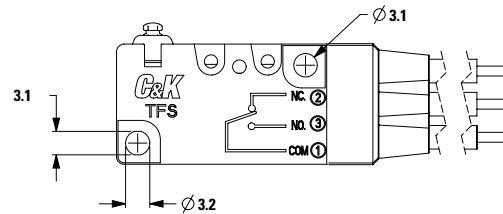


Circuitry

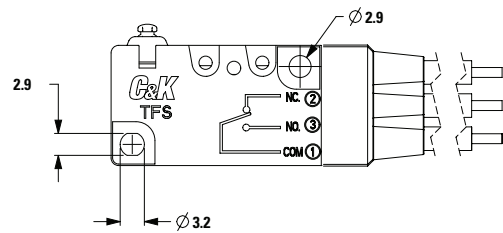
- C** SPDT (Single Pole, Double Throw)
- W** SPST N.C. (Single Pole, Single Throw Normally Closed)
- Y** SPST N.O. (Single Pole, Single Throw Normally Open)

Mounting Hole Size

None 3.1 mm (3mm Screw Clearance Hole)



S 2.9 mm (4-40 Screw Clearance Hole)



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