



### Description

The T.C 235/236 Series are designed for use with hinged movable machine guards which must be closed for operator safety. Their tamper-resistant design and positive-opening NC contacts provide a significantly higher level of safety than conventional, spring-driven limit switches often used to monitor hinged-guard position. Their IP67 rating make them ideal for interlocking safety guards in hostile environments.

### Operation

The T.C 235/236 is a single-piece, electromechanical safety interlock switch which is designed to mount to a hinged machine guard. After opening the guard only 4.5°, the unit's positive-break, normally-closed contacts are forced to open by a direct (non-resilient) actuating mechanism. These positive-break contacts ensure circuit interruption (and machine stoppage).

### Typical Applications



The T.C 235/236 is intended for use as a safety interlock switch on hinged, movable machine guards which, when open, expose operator/maintenance personnel to machine hazards. Their sealed design (IP67) and oil-tolerant seals make them ideal for use in hostile environments.

### Features & Benefits

- **Tamper-resistant** ... integral actuator arm prevents bypassing by operator.
- **“Positive-break” NC contacts** ... ensure circuit interruption upon only 4.5° of guard displacement.
- **Watertight design** ... meets IP67 washdown and immersion requirements.
- **Rugged, corrosion-resistant housing** ... tolerates the most hostile environments.
- **Meets rigid safety agency standards** ... IEC, BG, UL and CSA.
- **Four 90° actuator head positions** ... provide installation flexibility.

### AVAILABLE STANDARD MODELS

Part Number	Contacts (Guard Closed)	Description*
T3C235-11Z T3C236-11Z	1 NO & 1 NC	Hinged safety interlock switch with actuating lever to right in rest position
T3C235-02Z T3C236-02Z	2 NC	
T3C235-01Z T3C236-01Z	1 NC	
T4C235-11Z T4C236-11Z	1 NO & 1 NC	Hinged safety interlock switch with actuating lever vertical to switch body in rest position
T4C235-02Z T4C236-02Z	2 NC	
T4C235-01Z T4C236-01Z	1 NC	
T5C235-11Z T5C236-11Z	1 NO & 1 NC	Hinged safety interlock switch with actuating lever to left in rest position
T5C235-02Z T5C236-02Z	2 NC	
T5C235-01Z T5C236-01Z	1 NC	

\*The actuator head may be rotated into any one of four 90° positions.

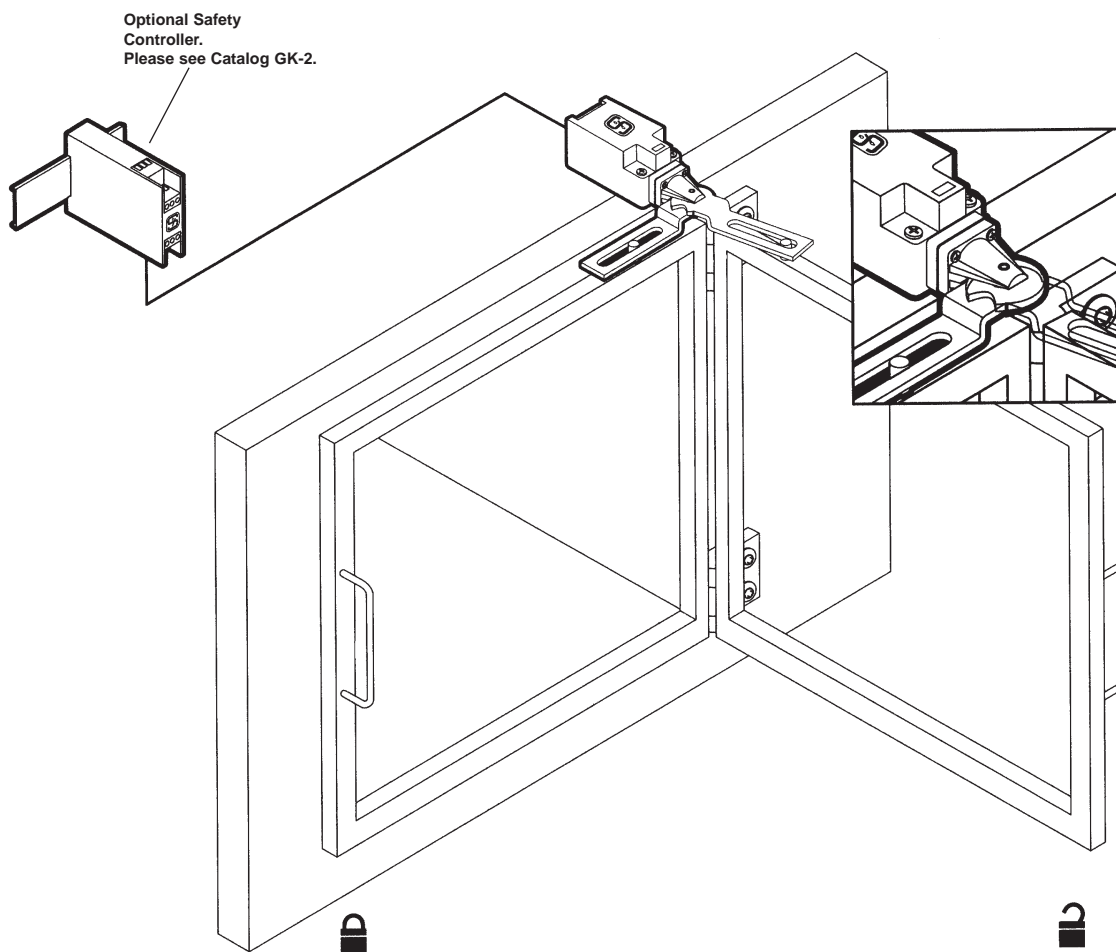
# T.C 235/236 TECHNICAL DATA

## MECHANICAL SPECIFICATIONS

<b>Housing</b>	(Series 235): Diecast zinc, enamel finish (Series 236): Glass-fiber, reinforced, self-extinguishing thermoplastic
<b>Displacement Angle for Contact Opening</b>	4.5°
<b>Degree of Protection</b>	IP67
<b>Operating Temperature</b>	-22°F to +175°F
<b>Mechanical Life</b>	>106 operations
<b>Operating Rate</b>	5,000 operations/hour (maximum)
<b>Conformity to Standards</b>	IEC 947-5-1 EN 60947-5-1 DIN VDE 0660-200 BG-GS-ET15 DIN-EN50047 UL CSA

## ELECTRICAL SPECIFICATIONS

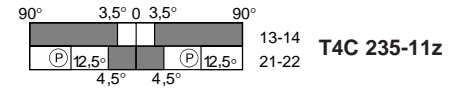
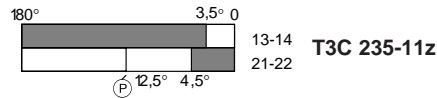
<b>Contacts</b>	Fine silver
<b>Contact Configuration</b>	Double-pole, double-break with electrically-separated contact bridges
<b>Contact Rating</b>	4A (230VAC) 2.5A (400VDC) 1A (500VAC)
<b>Switching Action</b>	Slow-action, positive-break NC contacts
<b>Short Circuit Protection</b>	Fuse 6A (time-delay) as a positive-break switch
<b>Rated Insulation Voltage</b>	500VAC
<b>Rated Impulse Withstand Voltage</b>	6kV
<b>Electrical Connections</b>	Screw terminals with self-lifting clamps for 13AWG (2.5mm <sup>2</sup> ) maximum wire size



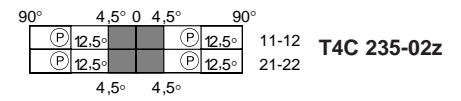
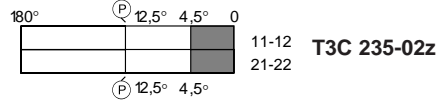
# T.C 235 TECHNICAL DATA

## Contact function diagrams

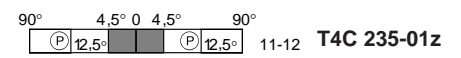
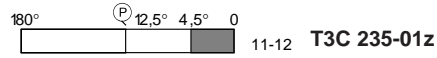
Slow action  
1 NO + 1 NC



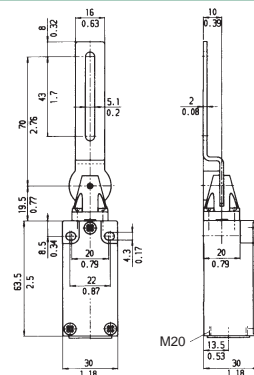
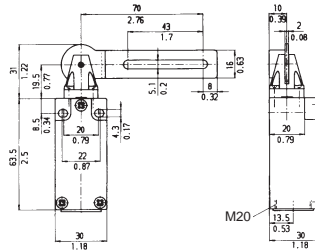
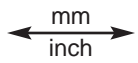
Slow action  
2 NC



Slow action  
1 NC



## Dimensions



## Types of Actuator Levers

### Lever 3 C

### Lever 4 C

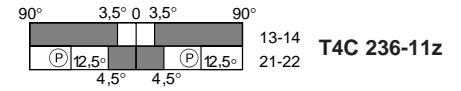
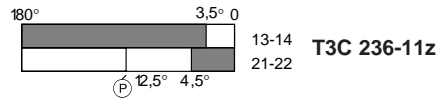
Part No.	Configuration	Action	T3C 235-11z	T4C 235-11z
13-14 21-22		Slow action	<b>T3C 235-11z</b>	<b>T4C 235-11z</b>
11-12 21-22		Slow action	<b>T3C 235-02z</b>	<b>T4C 235-02z</b>
11-12		Slow action	<b>T3C 235-01z</b>	<b>T4C 235-01z</b>



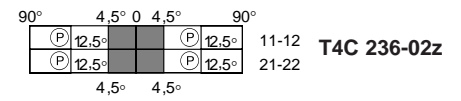
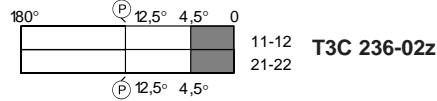
# T.C 236 TECHNICAL DATA

## Contact function diagrams

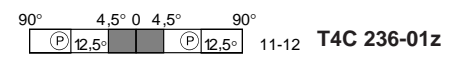
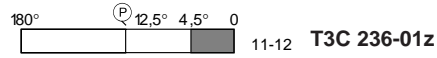
Slow action  
1 NO + 1 NC



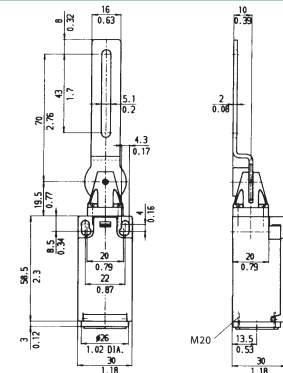
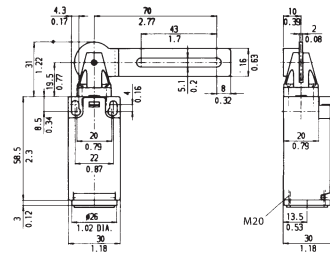
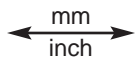
Slow action  
2 NC



Slow action  
1 NC



## Dimensions



## Types of Actuator Levers

		Lever 3 C	Lever 4 C
Part No.		<b>T3C 236-11z</b>	<b>T4C 236-11z</b>
		<b>T3C 236-02z</b>	<b>T4C 236-02z</b>
		<b>T3C 236-01z</b>	<b>T4C 236-01z</b>

