

PRODUCT PROFILE

TLS-GD2 with Escape Release

Rockwell Automation offers a wide choice of safety products under the Allen-Bradley Guardmaster brand, including a comprehensive safety switch range. Within that range there are interlock switches, guard locking switches, non-contact switches, hinge switches and cable pull switches, for a variety of applications and customer needs. As part of Rockwell Automation's commitment to providing solutions focused on customer requirements, Rockwell Automation has expanded its TLS GD2 guard locking switch range to include the Escape Release model.

Allen-Bradley Guardmaster safety switches provide a number of ways to protect personnel from machinery. The switches operate in such a way that the machine is stopped whenever a person enters the machine guard, and thus they are no danger. If a machine has a rundown time, then a guard locking switch should be installed; the switch is locked and will only open once the machine has come to a stop. But what happens in a situation where someone is trapped inside the machine guard, and there is no one in the vicinity to let them out?

Yet Another Flexible Solution for the Protection of Personnel and Equipment

The TLS-GD2 Escape Release guard locking switch, intended for machine guarding with full body access, allows the intentional unlocking of the TLS-GD2 from inside a hazardous area, providing a means of escape for a person who becomes trapped within the the guarded area. The switch meets all the same standards as the existing TLS range and and is the first product of its kind in our range. While there is no standard that mandates the use of such a switch, our product meets the requirements of GS-ET-19, a publication from BG, the German test house.

The escape release is operated by pressing the large 40mm metal push button mounted within the guarded area after the main switch is installed. Therefore the TLS-GD2 body can be outside the guarded area, while the escape release button is inside.

New TLS-GD2 Guard Locking Switch Prevents Personnel From Being Trapped in a Hazardous Situation While Allowing for Optimal Application Flexibility



Once attached to the switch, it is not possible to remove the push button, thereby ensuring that it is always available for use. The push button requires a maximum operating force of 50N, so it is easy to operate in an emergency. And with a mechanical life of 10,000 operations, the push button can protect persons becoming trapped at a rate of once a day for over 27 years. This product provides the reassurance that in the exceptional circumstance of a person becoming trapped inside a machine guard, they will have a reliable means of escape.

Features

- Escape release button on rear of switch
- TLS1 DG2 and TLS3 GD2 available
- Power to release
- Safety/auxiliary contacts: 2NC 1NO
- Solenoid contacts: TLS1 1NC 1NO, TLS3 2NC
- M20 or NPT
- 24V or 110V
- 2000N max retention force

Benefits

- Escape release button attached on installation - must be inside machine guard
- Switch can be outside machine guard for application flexibility
- 40mm Escape release button
- Push button tested to 10,000 operations for optimal reliability
- Provides reassurance that trapped person can escape from inside a guard



Product Selection

These new switches are available in both TLS1-GD2 and TLS3-GD2 Power to Release versions, as shown in the selection chart below. Suitable actuators for these switches:

- 440G-A27163 sliding bolt actuator
- 440K-A11112 flat actuator
- 440G-A27143 fully flexible actuator

Catalog Number	Product Description	Safety Contacts	Aux. Contacts	Solenoid Contacts		
440G-T21BNPM-1B	TLS1 GD2 POWER TO RELEASE ESCAPE RELEASE; 24V AC/DC; M20 CONDUIT ENTRY; WITHOUT ACTUATOR	2 NC	1 NO	1 NC, 1 NO		
440G-T21BNPT-1B	TLS1 GD2 POWER TO RELEASE ESCAPE RELEASE; 24V AC/DC; NPT CONDUIT ENTRY; WITHOUT ACTUATOR					
440G-T21BGPT-1B	TLS1 GD2 POWER TO RELEASE ESCAPE RELEASE; 24V AC/DC; NPT CONDUIT ENTRY; STANDARD ACTUATOR					
440G-T21BNPM-4B	TLS1 GD2 POWER TO RELEASE ESCAPE RELEASE; 110V AC/DC; M20 CONDUIT ENTRY; WITHOUT ACTUATOR					
440G-T21BNPT-4B	TLS1 GD2 POWER TO RELEASE ESCAPE RELEASE; 110V AC/DC; NPT CONDUIT ENTRY; WITHOUT ACTUATOR					
440G-T21BGPT-4B	TLS1 GD2 POWER TO RELEASE ESCAPE RELEASE; 110V AC/DC; NPT CONDUIT ENTRY; STANDARD ACTUATOR					
440G-T21BNPM-2B	TLS3 GD2 POWER TO RELEASE ESCAPE RELEASE; 24V AC/DC; M20 CONDUIT ENTRY; WITHOUT ACTUATOR			2 NC	1 NO	2 NC
440G-T21BNPT-2B	TLS3 GD2 POWER TO RELEASE ESCAPE RELEASE; 24V AC/DC; NPT CONDUIT ENTRY; WITHOUT ACTUATOR					
440G-T21BGPT-2B	TLS3 GD2 POWER TO RELEASE ESCAPE RELEASE; 24V AC/DC; NPT CONDUIT ENTRY; STANDARD ACTUATOR					
440G-T21BNPM-5B	TLS3 GD2 POWER TO RELEASE ESCAPE RELEASE; 110V AC/DC; M20 CONDUIT ENTRY; WITHOUT ACTUATOR					
440G-T21BNPT-5B	TLS3 GD2 POWER TO RELEASE ESCAPE RELEASE; 110V AC/DC; NPT CONDUIT ENTRY; WITHOUT ACTUATOR					
440G-T21BGPT-5B	TLS3 GD2 POWER TO RELEASE ESCAPE RELEASE; 110V AC/DC; NPT CONDUIT ENTRY; STANDARD ACTUATOR					

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