440G-LZ Guard Locking Switch

Allen-Bradley

TÜV certified PLe Cat. 4 while using up to 60% less power

Features and Benefits

- TÜV certified to PLe, Cat. 4 (EN/ISO 13849-1), the highest level of safety for both door position and lock monitoring
- An energy-efficient 'green' solution – uses up to 60 percent less power than competitive products
- RFID standard(low) or uniquely(high) coded actuators provide application flexibility
- High holding force of 1300N (Fzh tested to EN/ISO 14119) – suitable for a wide range of guarding applications.
- Available in two models – Power-to-Release (safety of people) and Power-to-Lock (protection of machine production)
- Two solid state OSSD outputs – connect in a series with other devices such as light curtains and SensaGuard Switches while maintaining PLe, Cat. 4 safety rating
- Rugged IP69K-rated housing – ideal for food packaging and processing machines washdown requirements
- Highly-visible 270° wrap-around LEDs provide status and diagnostics
- Compact 45 mm housing with four actuator positions for flexibility of mounting
- QR code on product links directly to on-line user manual

The Allen-Bradley® Guardmaster® 440G-LZ from Rockwell Automation is a guard locking switch designed for partial body access guard doors. Combining microprocessor technology with an RFID coded actuator, the 440G-LZ features a locking bolt drive mechanism that will only lock when the correct actuator is detected. The locking bolt is continuously monitored for correct insertion within the actuator. This extra functionality allows the 440G-LZ to be certified PLe, Cat. 4 – the highest level of safety for guard door position and lock monitoring – and can be connected directly or in series with other PLe, Cat 4 rated safety devices.

While the 440G-LZ provides this high safety performance level it consumes 60% less energy when compared to other guard locking switches, making it a truly "green" safety solution. It achieves this level of energy efficiency thanks to advanced algorithms and a bi-stable solenoid design that consumes little power for switching, regardless of whether in the locked or unlocked state.

A great choice for global machine suppliers and end users, the 440G-LZ provides optimal application flexibility. The high 1300N holding force allows the switch to be used in a wide range of applications. Available in Power-to-Release and Power-to-Lock models, this switch can be used for personnel safety or the protection of machine production. RFID actuators can be ordered as standard- or uniquely-coded for flexible levels of tamper proofing. Plus, the hygienic and rugged IP69K-rated housing makes the 440G-LZ ideal for use in harsh washdown environments, such as those encountered in food processing and packaging applications.

Easy to install, the 440G-LZ is designed in a compact 45 mm housing – sized for the most common guards – with four possible actuator orientations to allow for flexibility of mounting. Bright, 270° wrap-around LEDs provide status and diagnostic information for easy alignment and troubleshooting. For further ease of installation and troubleshooting, a QR code on the body of the product links directly to the on-line user manual.

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Ordering Information

Configuration Ordering

Complete Switch

*(Example: 440G-LZS21**UPRH**)*

440G-LZ S21_ _ _			
	Coding	**Power-to-Release or Lock**	**Cable**
	S = Standard (low)	**PR** = Power-to-Release	**A** = 3 m lead
	U = Unique (high)	**PL** = Power-to-Lock	**B** = 10 m lead
			H = Pigtail with M12 8-pin QD

Spare Actuator

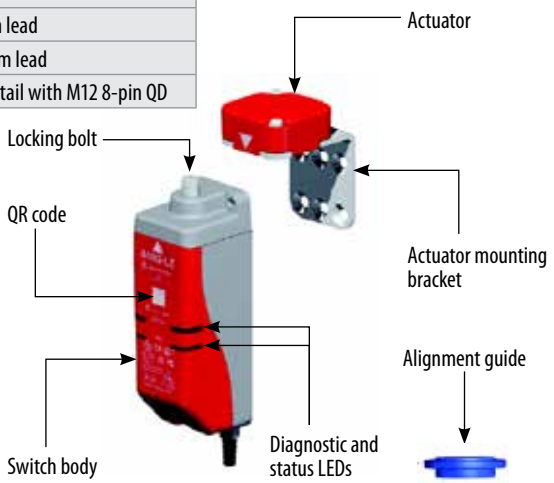
*(Example: 440G-LZA**UPR**)*

440G-LZ A_ _		
	Coding	**Power-to-Release or Lock**
	S = Standard (low)	**PR** = Power-to-Release
	U = Unique (high)	**PL** = Power-to-Lock

Mounting Brackets

440G-LZ AM_	
	Switch or Actuator
	1 = Actuator Mounting Bracket
	2 = Switch Mounting Bracket

Included with a complete switch



Specifications

Standards	IEC 60947-5-3, IEC 60947-5-1, IEC 61508, EN ISO 13849-1, IEC 62061, ISO 14119, UL 508
Safety Classification: Guard position sensing and lock monitoring	PLe Category 4 per EN ISO 13849-1, SIL 3 per IEC 61508 and IEC 62061
Certifications	CE Marked for all applicable EU directives, cULus (UL 508), TÜV, C-tick
Operating Characteristics	
Locking bolt alignment tolerance X, Y, Z	Max. of ±2.5 mm (0.09 in.)
Holding Force Fmax (EN/ISO 14119)	1,690 N
Holding Force Fzh (EN/ISO 14119)	1,300 N
Maximum output current (each outputs)	200 mA
Quiescent power consumption, locked or unlocked	2.5 W
Operating voltage Ue	24V DC +10% / -15% Class 2 SELV
Maximum frequency of operating cycles	0.2 Hz
Dwell time between subsequent locking/unlocking	2.5 s
Start up time (availability)	5 s
Manual (auxiliary) release	Built in
Mechanical life	500,000 cycles

Outputs (Guard closed and locked)	**Description/ Status**
Safety	2 x PNP, 0.2 A max / ON (+24V DC)
Auxiliary	1 x PNP, 0.2 A max / OFF (0V DC)
Environmental	
Operating temperature [C (F)]	0…+55° (+14…+131°)
Storage temperature [C (F)]	-25…+75° (-13…+167°)
Operating humidity	5…95% relative
Enclosure ingress rating	NEMA: 3, 4X, 12, 13 & IP: 66, 67, 69K
Shock and vibration	IEC 60068-2-27 30 g, 11 ms/IEC 60068-2-6 10…55 Hz
Hygienic	ISO 14159:2004 and EN 1672-2005, (for that part of the machine defined as "food splash area")
Washdown	Sodium Hydroxide based washdown fluids
Radio frequency / EMC	IEC 60947-5-3, FCC-1(Parts 18&15), R&TTE
General	
Materials	ABS, locking bolt and mounting bracket 304 stainless steel

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