

440G-EZ Electromagnetic Safety Switch Product Profile



Features and Benefits

- Increased productivity and efficiency: Bring application and machine to a safe stop without interrupting the process
- Ease of installation: Non-contact technology simplifies sensor and actuator alignment
- Process and machine protection per ISO EN 14119
- Non-contact interlocking device with a "Power to Lock" (PTL) locking function
- PLe, Cat 4, SIL 3 Safety Ratings
- Switches can be connected in series
- 500 N Holding force and ± 5 mm alignment tolerance
- IP67 Enclosure: Anodized Aluminum Sensor Housing; Fiberglass/PVC Actuator Housing
- LED diagnostics for switch status (ON/OFF) and lock status (ON/OFF)
- 5-pin and 8-pin M12 Micro QD connection options



Allen-Bradley® Guardmaster® safety switches from Rockwell Automation® help protect personnel, processes and equipment by providing physical interlocking of guard doors, allowing access to potentially hazardous areas only when the area is safe. Our new 440G-EZ electromagnetic interlocking safety switch is designed to protect a working process from unplanned downtime to improve productivity and increase efficiency while providing personnel safety.

The 440G-EZ electromagnetic safety switch is a cost-effective interlock solution that combines a Power to Lock (PTL) magnetic locking function featuring a 500N holding force and with ± 5 mm misalignment tolerance. Intended for use on all types of guard doors, 440G-EZ electromagnetic safety switches are TÜV-certified up to Cat 4, SIL3, PLe — the highest level of safety for guard position — and can be connected in series with other Cat 4, SIL 3 or PLe rated safety devices. The 440G-EZ also features a low-profile housing design with multiple mounting (surface or flush mount) and connection options including 5-pin or 8-pin M12 micro quick disconnect pigtailed for optimal installation flexibility. The magnetic locking feature further aids in door stability and reduces misalignment and nuisance tripping. To simplify installation, troubleshooting and maintenance, the switch offers on-board LED diagnostics indicating switch status as well as when the state of the output signal-switching devices (OSSD's) are locked or unlocked.

Built to global standards for high reliability, stability and quality, Allen-Bradley® Guardmaster® safety switches are ideally suited for applications where safety is a priority. Our innovative products help protect your people, machinery and environment while maximizing uptime.

Product Selection

Description	Catalog No.
5-pin Micro QD version (for point-to-point wiring)	440G-EZS21STL05J
8-pin Micro QD version (for series wiring)	440G-EZS21STL05H
Replacement actuator	440G-EMAS

Product supplied with Safety Switch, Actuator, 4 screw hole caps, installation instructions

Connection Systems

Description	Catalog No.
8-pin Cordset	889D-F8AB ²
8-pin Patchcord	889D-F8ABDM ¹
5-pin Cordset	889D-F5AC ²
5-pin Patchcord	889D-F5ACDM ¹

¹(2 m), 5 (5 m), or 10 (10 m) for standard cable lengths.

²(1 m), 2 (2 m), 3 (3 m), 5 (5 m), or 10 (10 m) for standard cable lengths.

Operating Characteristics

Locking Force	500 N
Magnetic Retaining force without power	25 N
Alignment Tolerance	±5 mm
Assured ON Distance	4 mm
Assured OFF Distance	45 mm
Response Time	<50 ms*
Enable Time	<100 ms [^]
Operating Voltage	24V DC

* Response time for moving the OSSDs into the OFF state when the actuator is removed from the response area or when the OSSD input signals go into the OFF state.

[^] Response time for moving the OSSDs into the ON state when the actuator is detected by the sensor and the OSSD input signals are in the ON state.

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	PLe category 4 per EN ISO 13849-1, SIL 3 per IEC 61508 and IEC 62061
Certifications	CE Marked for all applicable EU directives, c-UL-us (UL 508), TÜV, C-Tick

Outputs

Safe state	De-energized (2 x PNP, 0V), AUX energized (1 x PNP, 24V)
Run state	Energized (2 x PNP, 24V), AUX de-energized (1 x PNP, 0V)

Environmental

Operating Temperature	-20...+55°C
Storage Temperature	-25...+70°C
Enclosure Ingress Rating	IP67 (IEC 60529)
Relative Humidity	50% at 70°C (IEC 60947-5-2)
Shock and Vibration	IEC 60068-2-27 30 g, 11 ms/ IEC 60068-2-6 10...55 Hz
EMC	IEC 61326-3-1, IEC 60947-5-2, IEC 60947-5-3, and EN 300330 V2.1.1

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