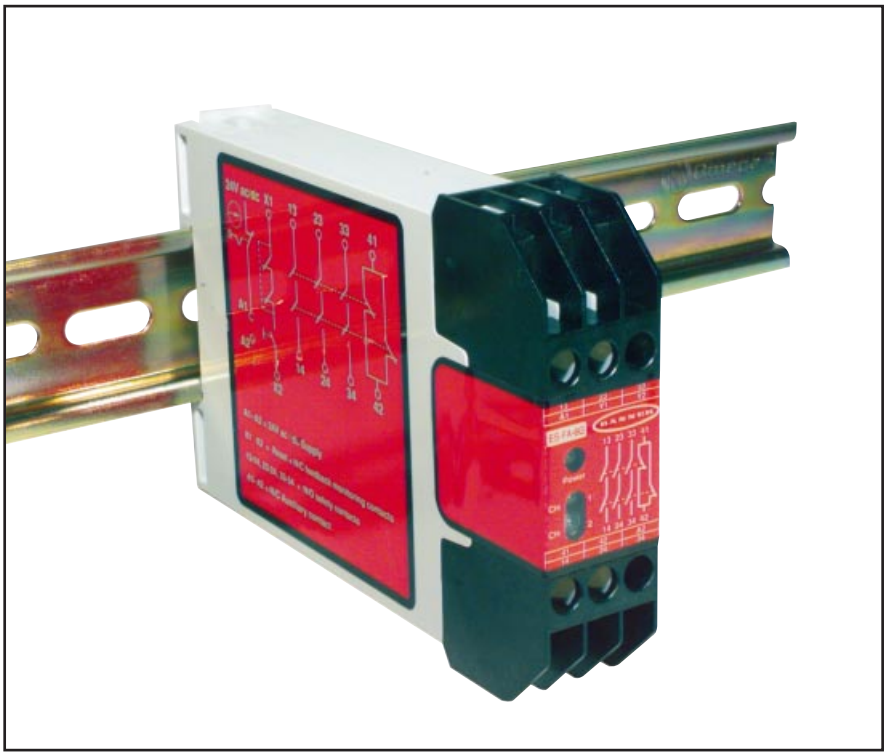
BANNER®

the machine safety specialist

ES-FA-6G 1-Channel Emergency Stop Safety Module

24V ac/dc operation



E-Stop Safety Module Features

- Monitors one single-channel normally closed Emergency Stop switch circuit for a contact failure or wiring fault
- Three output switching channels for connection to control-reliable power interrupt circuits
- Auto reset or manual reset
- One auxiliary non-safety N/C output contact for status monitoring by process controller
- Design complies with standards UL991, EN418, and EN954-1 (Safety Category 2)
- For use in functional stop category 0 applications per NFPA 79 and EN418
- 6 amp safety output contacts

WARNING . . . This Emergency Stop Safety Module is not a point-of-operation guarding device, as defined by OSHA regulations. It is necessary to install point-of-operation guarding devices, such as safety light curtains and/or hard guards, to protect personnel from hazardous machinery. **Failure to install point-of-operation guards on hazardous machinery can result in a dangerous condition which could lead to serious injury or death.**

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Important … read this page before proceeding!

Banner Engineering Corp. has made every effort to provide complete application, installation, operation, and maintenance instructions. In addition, any questions regarding the use or installation of this Banner Emergency Stop Safety Module should be directed to the factory applications department at the telephone numbers or address shown on back cover.

The user shall ensure that all machine operators, maintenance personnel, electricians, and supervisors are thoroughly familiar with and understand all instructions regarding the installation, maintenance, and use of this Emergency Stop Safety Module, and with the machinery it controls.

The user and any personnel involved with the installation and use of this model Emergency Stop Safety Module must be thoroughly familiar with all applicable ANSI/NFPA standards. The standards, listed below, directly address the use of emergency stop systems. Banner Engineering Corp. makes no claim regarding a specific recommendation of any organization, the accuracy or effectiveness of any information provided, or the appropriateness of the provided information for a specific application.

The user has the responsibility to ensure that all local, state, and national laws, rules, codes, and regulations relating to the use of this Emergency Stop Safety Module in any particular application are satisfied. Extreme care is urged that all legal requirements have been met and that all installation and maintenance instructions contained in this manual are followed.

U. S. Standards Applicable to Use of Emergency Stop Safety Modules

ANSI B11 — Standards for Machine Tools "Safety Requirements for the Construction, Care and Use"
Available from: Safety Director
AMT – The Association for Manufacturing Technology
7901 Westpark Drive
McLean, VA 22101-4269
Tel.: 703-827-5266

NFPA79 — "Electrical Standard for Industrial Machinery (1997)"
Available from: National Fire Protection Association
1 Batterymarch Park, P.O. Box 9101
Quincy, MA 02269-9101
Tel.: 800-344-3555

ANSI/RIA R15.06 — "Safety Requirements for Industrial Robots and Robot Systems"
Available from: Robotic Industries Association
900 Victors Way, P.O. Box 3724
Ann Arbor, MI 48106
Tel.: 734-994-6088

European Standards Applicable to Use of Emergency Stop Safety Modules

EN292-1 — "Safety of Machinery – Basic Concepts, General Principals for Design
Part 1: Basic Terminology, Methodology"

EN292-2 — "Safety of Machinery – Basic Concepts, General Principals for Design
Part 2: Technical Principals and Specifications"

EN60204-1 — "Electrical Equipment of Machines: Part 1: General Requirements"
Also, request a type "C" standard for your specific machinery.

EN418 — "Safety of Machinery – Emergency Stop Equipment Functional Aspects, Principles for Design"
Available from: Global Engineering Documents
15 Inverness Way East
Englewood, CO 80112-5704
Tel.: 800-854-7179