



Description

The Safedge controllers are designed to operate with the Safedge profiles. The controller continuously monitors the profile for actuation and generates an output signal when the profile is depressed.

The Safedge controller provides a low voltage to the profile. When the profile is pressed, the controller detects a change in resistance and turns off its output relays. When pressure is released from the profile, the output relays of the controller return to an on state. The controller has redundant voltage free positively-guided output relays which can be used to interface with a machine control system.

The '251' controller comes capable of operating at 24V AC/DC, or 120/230V AC from separate terminals. An internal switch changes the operating voltage from 120V AC to 230V AC. The '252' controller operates at 24V AC/DC.

An auxiliary output relay is available to provide a signal about the controller's status. Three LEDs indicate whether the controller is in RUN, STOP or OPEN condition. The controller operates in manual or automatic reset mode.

Features

- 1 N.O. or 2 N.O. Safety Outputs
- 1 N.C. Auxiliary Output
- 24V AC/DC or 120/240V AC
- Output Monitoring
- LED Indicators for RUN, STOP and OPEN
- Automatic/Manual Reset




Specifications

Standards	EN1760-2, EN954-1, ISO 13849-1, AS4024.5, EN954-1, ANSI B11.19
Safety Category	Cat. 3 per EN954-1
Approvals	CE marked for all applicable directives, cULus, TuV
Power Supply 251 252	24V AC/DC or 110/230V AC 50/60Hz 24V AC/DC 50/60Hz
Power Consumption 251 252	<6VA <4VA
Fuses, Internal 251D, 251P 251P 252D	500mA Power Supply, Replaceable 2 x 2A Safety Output, Replaceable 500mA, Resettable
Fuses, External	4A on AC, 2A on DC
Safety Input Profile	6K Ω 12V DC open circuit, 4V DC run condition
Monitoring	1 N.O.
Maximum Input Impedance Profile Monitoring Circuit	9K Ω 1K Ω
Outputs 251 Safety 252 Safety 251, 252 Auxiliary	2 N.O. 1 N.O. 1 N.C.
Output Rating	2A/250V AC, 2A/125V AC 1A/30V DC
Min. Switching Current/Volt.	10mA/10V
Max. Response Time	13ms
Indication LEDs	Green = Run Yellow = Open Circuit Red = Stop
Impulse Withstand Voltage	2500V
Installation Group	C in accordance with VDE0110
Pollution Degree	3
Operating Temperature	-10°C to 55°C (-14°F to 131°F)
Humidity	90% RH
Enclosure Protection 251D, 252D 251P	IP40 (NEMA 1) IP65 (NEMA 13)
Terminal Protection	IP20 DIN 0470
Max Conductor Size 251D, 252D	1 x 4mm ² (10AWG) stranded 1 x 4mm ² (10 AWG) solid
251P	1 x 1.1mm ² (18AWG) stranded 1 x 1.5mm ² (16AWG) solid
Case Material	Polycarbonate
Weight 252D 251D 251P	181g (0.4lbs) 450g (1.0lbs) 650g (1.4lbs)
Vibration	0.15mm 10-55Hz
Shock	10g, 11ms half sine

Safety Edges

Safedge™ Controllers

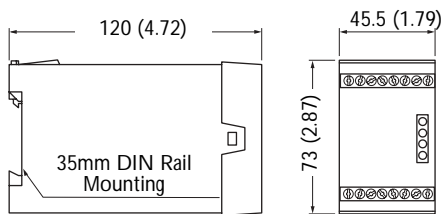
Product Selection

Housing Type	Description	Catalogue Number
	35mm DIN Rail Mountable	440F-C251D
		440F-C252D
	Surface Mountable	440F-C251P

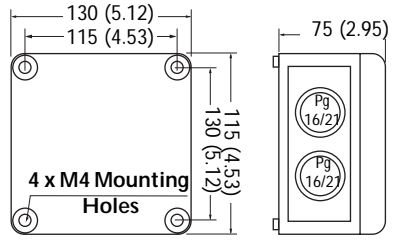
Approximate Dimensions—mm (inches)

Dimensions are not intended to be used for installation purposes.

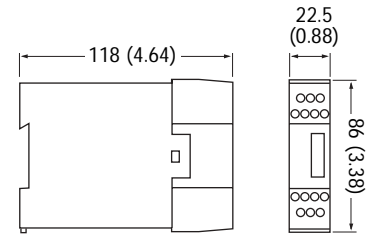
440F-C251D



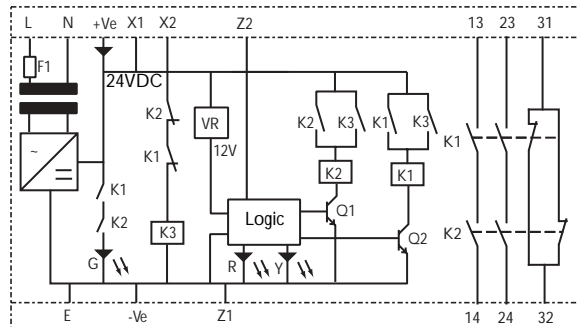
440F-C251P



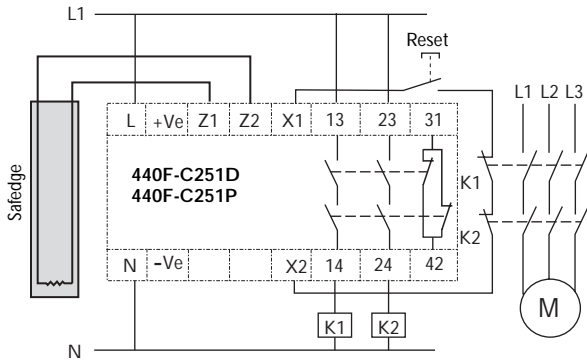
440F-C252D



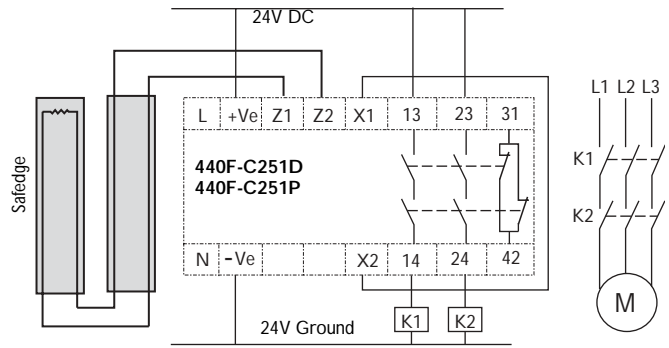
Block Diagram



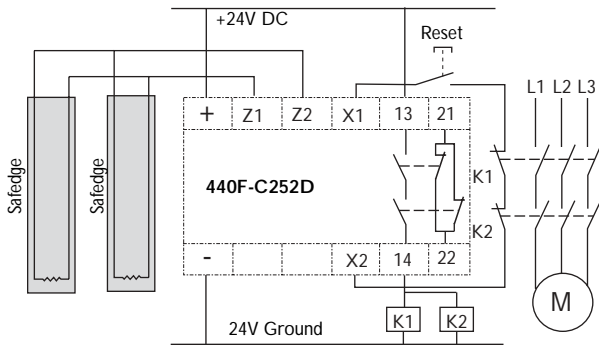
Typical Wiring Diagrams



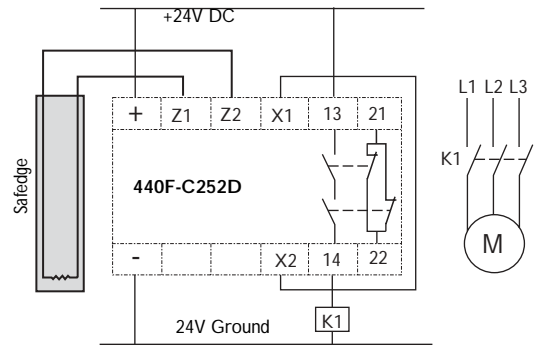
Series Terminated, Safedge Input, Manual Reset, Dual Channel Output, Monitored Output



Series Terminated, Cascaded, Safedge Input, Automatic Reset, Dual Channel Output, No Output Monitored



Parallel Terminated, Safedge Input, Manual Reset, Dual Channel Output, Monitored Output



Series Terminated, Safedge Input, Automatic Reset, Single Channel Output, No Output Monitored

Accessories

Description	Page	Catalogue Number
Fuse, 500mA	14-6	440R-A31562
Fuse, 2A	14-2	440A-A09197