

E-Stop Relay and Safety Gate Monitor

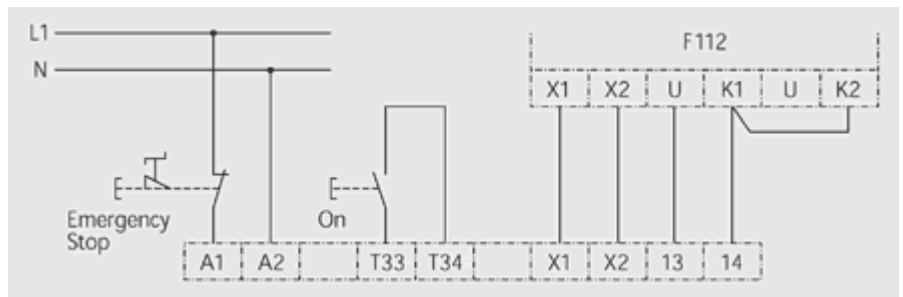
If both NC-contacts of the two channel emergency-stop switch are closed, F113 can be activated via the adjacent operating voltage across terminals A1 and A2 and the closed feedback circuit X1-X2 via terminals T33-T34. Once energised the positive guided safety contacts 13-14; 23-24 close and enable operation either directly or via the connected contactors. One NC-contact respectively of the connected F112 or contactors is to be wired in series into feedback circuit X1-X2 of the emergency-stop relay, so that F113 start is possible only if the F112 contactors are at rest and their NC-contacts are closed (see connection diagram).



Mode of Operation

If both NC-contacts of the two channel emergency-stop switch are closed, F113 can be activated via the adjacent operating voltage across terminals A1 and A2 and the closed feedback circuit X1-X2 via terminals T33-T34. Once energised the positive guided safety contacts 13-14; 23-24 close and enable operation either directly or via the connected contactors. One NC-contact respectively of the connected F112 or contactors is to be wired in series into feedback circuit X1-X2 of the emergency-stop relay, so that F113 start is possible only if the F112 contactors are at rest and their NC-contacts are closed (see connection diagram).

Wiring Example

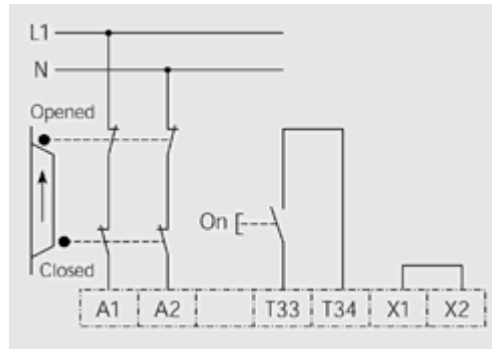


Wiring example 3 see technical data

Models and Ordering Data

Contacts	2 N/O (safety contacts)
Type F113	Order No.
230 V _{AC}	074 00011 *
115 V _{AC}	074 00012
42 V _{AC}	074 00013
24 V _{AC/DC}	074 00014 *

*) Approval for U.S./Canada



Example 1 (above): Single-channel emergency-stop circuit with added F112 module for multiplication of contacts 1- channel.

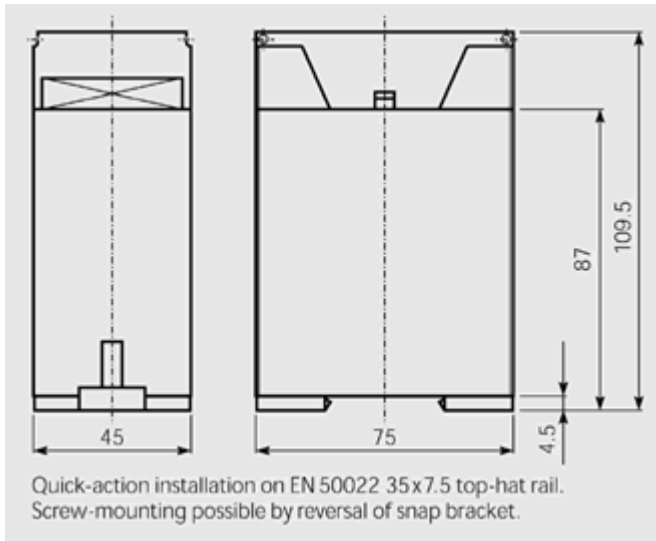
Example 2 (left): Safety guard monitor with 2-channel actuation and forced switching limit switches. Repeated release via on-switch.

Technical Data

Rated voltage	230/115/42 V _{AC} ; 24 V _{AC/DC}
Voltage range	0.8 to 1.1 x rated voltage
Frequency range	50/60Hz
Power consumption	approx. 4.5 VA
Rated insulation voltage	250V
Surface-leakage paths and air gaps	Overvoltage category III Pollution level 2 to DIN VDE 0110-1 (01/89) and DIN VDE 0110-2 (01/89)
Test voltage	2.5 kV
Ambient temperature	-5 °C to +55 °C
Mode of protection	IP20 terminals, IP40 casing to DIN VDE 0470-1 (11/92)
Switching capacity	250 V _{AC} ; 5 A; 1200 VA/120 W 24 V _{DC} preferably with spark arrest
Utilisation category	AC-15; DC-13
Response time	on: approx. 130 ms; off: approx. 160 ms
Output contacts	2 N/O (safety contacts)
Mechanical service life	10 ⁷ switching cycles
Switch material	AgSnO, 0.5 μ Au
Terminal bolts	Terminal box with wire protection
Line cross section	rigid 4 mm ² , flexible 2.5 mm ² , connecting lead to be stripped up to max. 4 mm
Voltage at emergency-stop switches	operating voltage
Output contact fuse	6A slow blow



Dimensional Drawing



Circuit Diagram

