

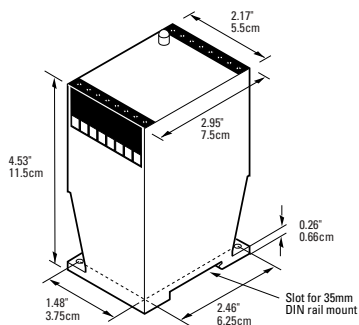
## Emergency-Stop Safety Relay

### INT-04 Series

#### Applications

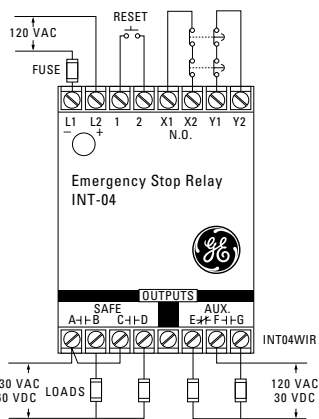
- Monitors both contacts on E-stop buttons
- Incorporates loop break detection for floor mat sensing
- Provides 2 safe outputs plus a form C output for signaling
- Inhibits machine restart in case of component failure
- DIN Rail or panel mount
- LED power on indicator

#### Panel Mount Dimensions



#### Wiring

##### Door Open Configuration



The INT-04-024 or INT-04-120 Safety Relay is intended for use as part of a safety circuit in emergency-stop or safety floor mat sensing applications. It is a safety relay which uses positive-guided relays, configured for self-checking, to inhibit machine start-up in the event of an internal component failure.

The INT-04 relay can also monitor contacts on external relays for controlling expansion block relays (INT-05 and INT-06).

#### As E-Stop Relay

Both contacts on E-stop buttons are monitored to ensure both have opened and closed to allow machine restart. Multiple contacts can be wired in series. Upon failure of either contact, the relay will prevent restart.

#### As Safety Floor Mat Relay

The INT-04 monitors both loops of a safety floor mat. The safety outputs of the INT-04 turn off when an operator steps on the mat. The relay incorporates loop break detection to turn off if one of the loops breaks or becomes disconnected.

#### General Specifications

UL/TUV	All Models
<b>Control Inputs (X1, X2 &amp; Y1, Y2 terminals)</b>	
Open-circuit voltage	24VDC
Closed-circuit current	24mA
Max. contact resistance	30 Ohms
Simultaneity	500 ms typical
<b>Safe Outputs (A,B/C,D terminals)</b>	
Voltage	230 VAC/60VDC
Current	4A (resistive)
Response time	< 100 ms
Fuse	4A, 250V, 5 x 20 mm, F/T

#### AUX. Signaling Outputs (E,F,G terminals)

Voltage	120 VAC/30VDC
Current	1A (resistive)

*Note: Transient protection is required across the load when switching an inductive load.*

#### Operation

**E-Stop:** The INT-04 energizes after E-stop button contacts are closed and RESET button is pressed (monitored contacts must also be closed).

**Floor Mat:** The 2 floor mat loops connect from terminal X1 to X2 and Y1 to Y2. The INT-04 energizes after RESET button is pressed with no object on mat. It turns off when a heavy enough object operator is on mat.

AUX CONTACTS				
Power	Reset(1,2)	E-Stops	E,F	F,G
Off	Open or Closed	Open or Closed	Closed	Open
On	Open	Open or Closed	Closed	Open
On	Open or Closed	Open	Closed	Open
On	Closed	Closed	Open	Closed

Reset "Open" is prior to initiating a cycle.  
Reset "Closed" can be momentary or maintained.



File E 122942



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#### Order Information Electrical Specifications

Part Number	Power Input (L1,L2)	Required Fuse
INT-04-024	24VDC ± 15%, 100mA	Fast Acting 1/4 A (250V, 5 x 20 mm F/T)
INT-04-120	120VAC +10%, - 20%, 50/60 Hz, 5VA	Fast Acting 80mA (250V, 5 x 20 mm F/T)

**Warning— Each electrical rating is an individual maximum and cannot be exceeded!**