

Product Information

Monitoring Devices

Safety Relay F121



- Emergency-stop-relay
- Safety gate monitor
- Light grid monitoring
- Safety category 4
- Stop category 0

Characteristics

Safety relays must be installed in machine controls to save the live. They are useful in cutters, mixing machines, conveyors, printing machines, winding machines, packing machines, robots and metal processing machines etc...

Technical data

Power supply

- Supply voltage : 230 V 50/60 Hz -20/+10 %
- : 24 V AC/DC -15/+10 %
- Supply for emergency stop circuit : 24 V DC terminal S11 (+), S21 (-)
- Power consumption : 4 W
- Operating temperature : -5...+55 °C
- CE-conformity : acc. to the directive 89/336/EG, 73/23/EG and 89/392/EG

Output

- Relay : 3 n.o.; 1 n.c.; (positively driven, redundant)
- Breaking capacity : < 250 V AC < 1500 VA < 6 A, < 24 V DC < 144 W < 3 A

Switch-on delay

- Manual start : < 60 ms, start via on-button
- Auto start : < 600 ms self start via supply voltage

Switch-off

- Emergency button : < 20 ms
- Power failure : < 250 ms
- at 24V DC : via emergency button without light barrier < 15 ms

Reactivation time

- Via start button : > 5 s
- Auto start : > 2 s
- at 24V DC : > 0.1 s after emergency stop or light barrier stop

Utilization category : AC-15: 250 V 6 A; DC-13: 24 V 3 A

Transistor : PNP short-circuit-proof max. 24 V DC; 20 mA

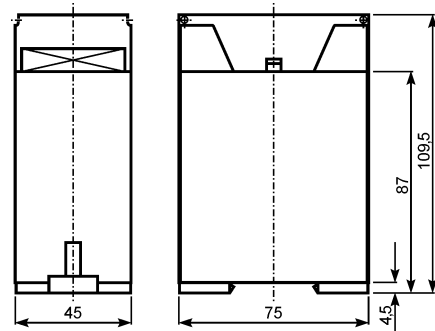
Case : standard case Lexan 500R, UL file No E45329, UL94-V0

Weight : 230 V AC 370 g
24 V DC 290 g

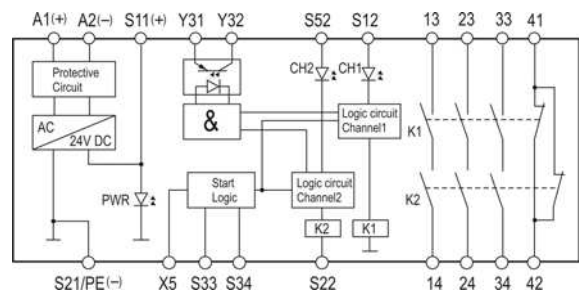
Connection : terminals with pressure plate

Protection class : case IP40 terminals IP20 acc. to BGV A3

Dimensions

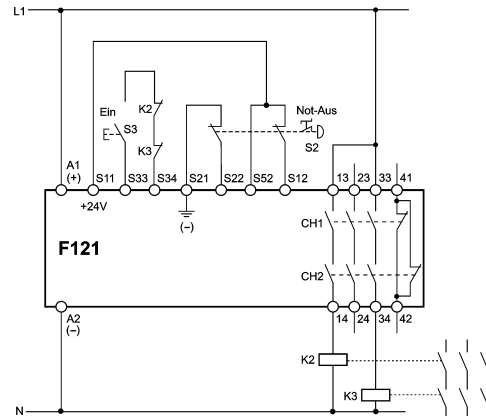


Connection diagram



Connection example

Dual channel E-stop-circuit with cross fault monitoring, categoric 4



Ordering code

F121 - 1.

1. Supply voltage	
01	230 V AC -20/+10%
04	24 V DC -15/+10%*

* It is not permitted to connect the mains earth (PE) at the device.