

# Emergency Stop Relay

Type LG 5924  
safemaster



Model LG 5924



CANADA

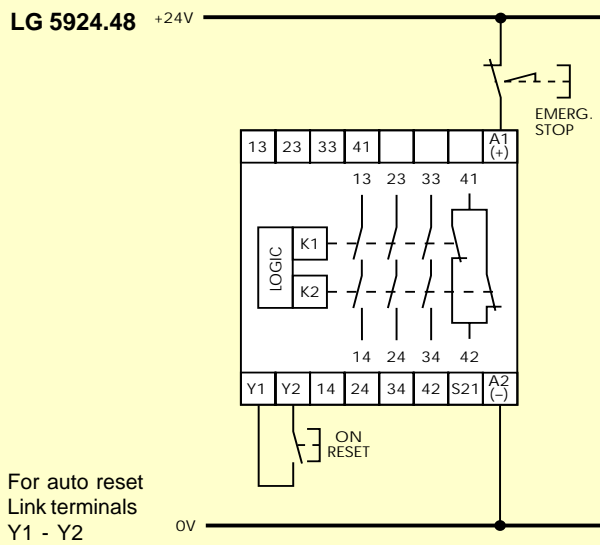


USA



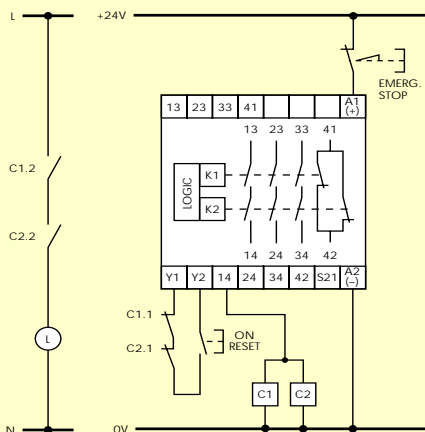
Technical Committee  
of Electrical Engineer-  
ing

## Typical Schematic Diagram



Diag 1

**LG 5924.48** with external contactors. This diagram shows how external contactors with positive guided contacts C1 and C2 may be used to reinforce the switching capacity of LG 5924.48 with continued redundancy.



Diag 2

## Features

- Category 2, SIL CL3, PL e
- Category 3 with external monitoring
- Contacts  
3 N/O 1 N/C, 4 N/O, 2 N/O
- Ultra Compact 22.5 mm wide case
- Internal auxiliary power supply protection with automatic reset
- AC or 24V DC auxiliary power supply options

## Description

Emergency stop relay LG 5924.48 complies fully with the requirements of the standards for safety relays. This unit is housed in an ultra compact 22.5 mm case suitable for DIN rail mounting.

## Circuit Connections

The OFF and the EMERGENCY STOP buttons are connected in series between L1 and terminal A1 with N connected to terminal A2. The On/Reset button is connected between terminals Y1 – Y2 and the circuits to be tripped may be connected to terminals 13 – 14, 23 – 24 and 33 – 34. Terminals 41 – 42 are dedicated to remote signalling. When the EMERGENCY STOP button is activated power is removed from terminal A1, relays K1 and K2 de-energise and contacts 13 – 14, 23 – 24 and 33 – 34 open.

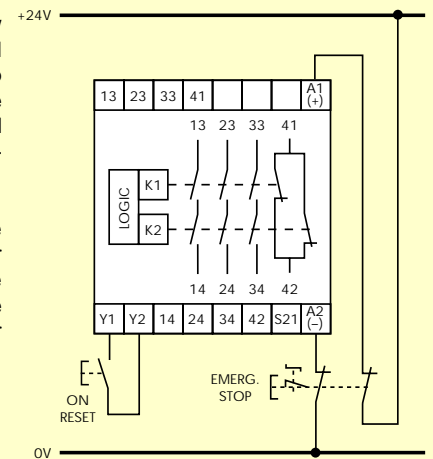
## Indication

The relay is equipped with two LEDs. When illuminated they indicate the healthy condition of circuits K1 and K2.

## LG 5924.48

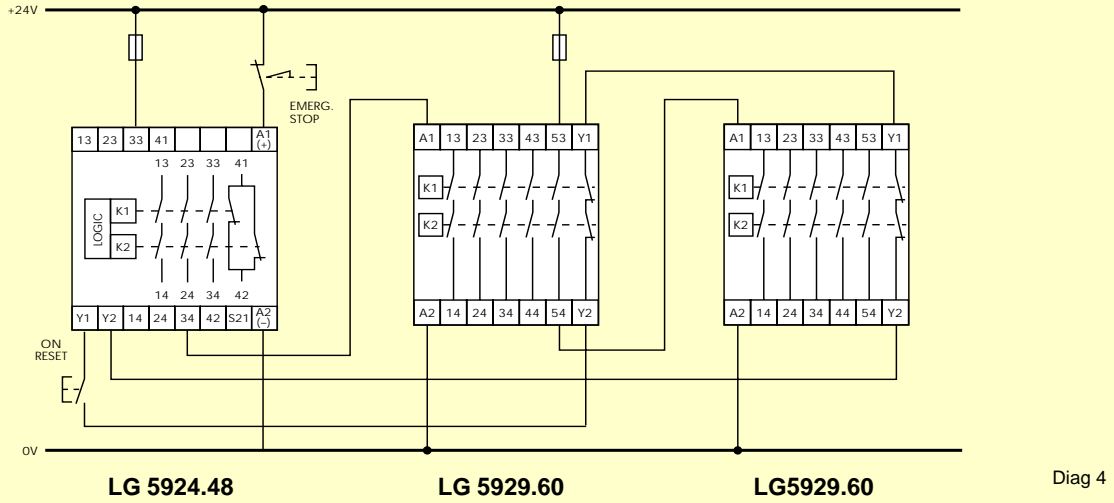
This diagram shows how an additional external contact on the E- stop pushbutton, can increase the redundancy and therefore the safety category of LG 5924.

**NB:** A regular test of the E-stop control circuits, or external monitoring by the machine control must be made to maintain a higher safety category.



Diag 3

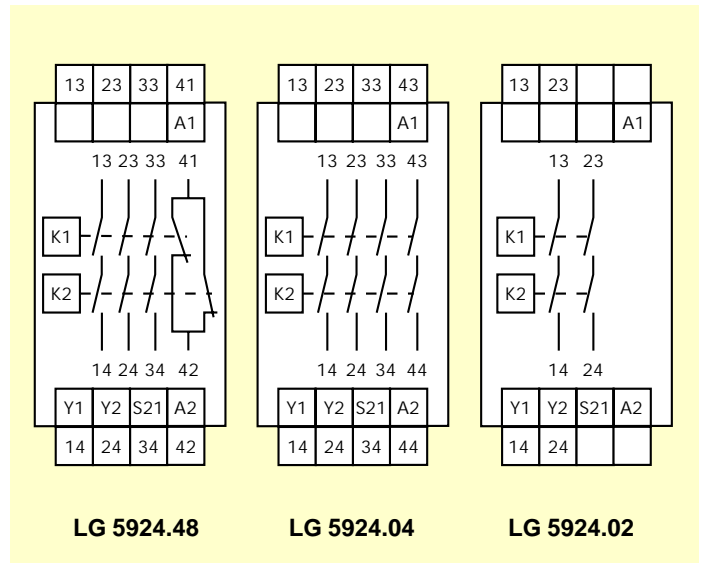
## LG 5924.48 with LG 5929.60 Extension modules



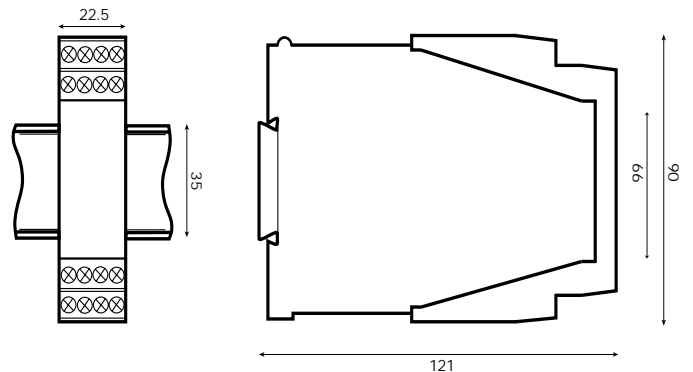
### Specifications

Nominal Voltage (Vn)	24, 48, 110, 127, 230V ac or 24V dc (to be specified)
Burden	4VA ac, 1.2W dc
Voltage Tolerance	0.8... 1.1Vn ac, 0.8... 1.2Vn dc
Control Voltage	24V dc
Contacts	3N/O, 1 N/C
Max Switching Capacity	8A ac (cos $\phi$ 1 - 0.7) 8A dc see data
Continuous Current Rating	see data
Contact Life Mechanical	30 x 10 <sup>6</sup> operations
Contact Life Electrical	see data
Derating Capacity	AC15, 4A, 250V ac DC13, 4A, 24V dc
Min Switching Voltage & Current	10V, 15mA ac/dc
Max Switching Voltage	250V ac, 250V dc
Max Switching Power	2000VA (AC1) 192W dc
Max Switching Frequency	600 operations/hour
Reaction Times	Reset 100ms E-STOP < 30ms
Operating Temperature	-15°C... +55°C at 90% RH
Protection Class	Case IP40 Terminals IP20
Test Voltage	2.5kV 1 minute
Shock Loading	Amplitude 0.35mm Frequency 10 - 55Hz (5g @ 50Hz)
Enclosure Material	Thermoplastic VO Rating UL94
Terminations	1 x 4mm <sup>2</sup> solid 2 x 2.5mm <sup>2</sup> solid 1 x 2.5mm <sup>2</sup> stranded ferruled 1 x 1.5mm <sup>2</sup> stranded

### Terminal Layout



### Typical Schematic Diagram



Weight 0.21 Kg

### Information Required With Order

• Model type • Auxiliary supply  
*Example: Emergency Stop Relay Type LG 5924.48  
Auxiliary Supply 24V dc*