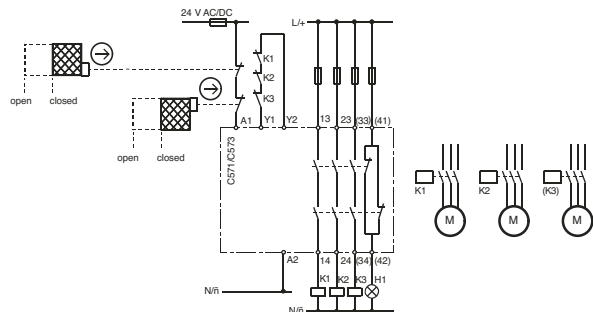
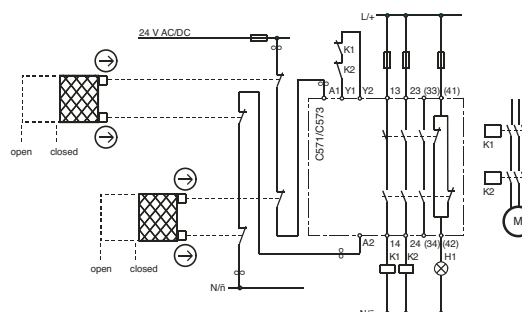


Application examples C571-AC

Safety gate monitoring, category 2 acc. to EN 954-1



Safety gate monitoring, category 3 and 4 acc. to EN 954-1



7 Application

The safety relay C 571-AC can be used in EMERGENCY STOP circuits as per EN 418 and in safety circuits as per VDE 0113 Part 1 (11.98) and/or EN 60 204-1 (12.97), e.g. with movable covers and safety gates. Depending on the external connections, safety categories 3 and 4 as per DIN EN 954-1 are achievable. When the safety combination is used in «automatic start» mode, automatic restarting (as per EN 60 204-1, sections 9.2.5.4.2 and 10.8.3) must be prevented by the higher-level control system in the event of EMERGENCY STOP.

Functions and connections

The safety relay C 571-AC has two release circuits (safety outputs) which are configured as NO contacts. The number of safety outputs can be increased by adding one or more C 579 extension modules. Three LEDs indicate the operating state and function.

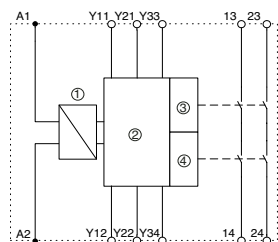
When the EMERGENCY STOP button or the limit switch is unlocked and when the ON button is pressed, the internal circuits of the safety relay and the external contactors are checked for proper functioning.

Connect the EMERGENCY STOP button or the limit switch to terminals Y11, 12 and Y21, 22. The ON button is connected in series with the NC contacts of the external contactor (feedback loop) between terminals Y33, 34.

Terminal marking

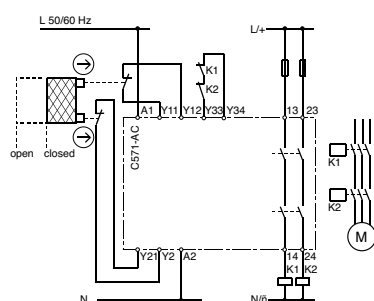
Supply voltage	A1	L
	A2	N
Sensors	Y11, 12	Channel 1 EMERGENCY STOP or limit switch
	Y21, 22	Channel 2 EMERGENCY STOP or limit switch
	Y33, 34	ON button, feedback loop
Outputs	13, 14	Safety output 1 (n/o)
	23, 24	Safety output 2 (n/o)

Internal circuit



- ① Power pole
- ② Control logic
- ③ Channel 1
- ④ Channel 2

Two channel autostart for contactor monitoring; Safety category 3 and 4 acc. to EN 954-1



Operating states

LEDs			Operation			
POWER	Channel 1	Channel 2	PS	E-STOP	ON	Safety output
☀	☀	☀	ON	non activated	activated	closed
☀	●	●		activated	non activated	open
☀	●	●		non activated	non activated	open
Faults						
☀	☀	●	Relay fusion-welded Motor cont.fusion-welded Defects in electronic			open
●	●	●	Cross or ground faults in EMERG. STOP circuit			

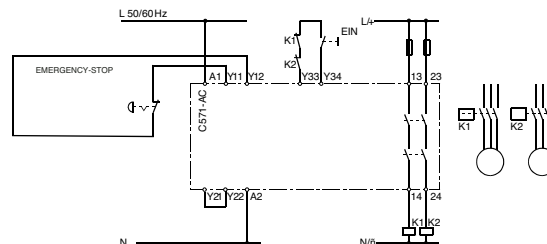
Fault clearance

1. Switch supply voltage off.
2. Clear fault or replace device.
3. Switch supply voltage back on.

Cable length

for 2 x 1.5mm² max. 1000m (total cable length for sensors and power supply lines)
150 nF/km

Single-channel EMERGENCY STOP with additional ON button Safety category 2 acc. to EN 954-1



Two-channel EMERGENCY STOP with additional ON button Safety category 3 and 4 acc. to EN 954-1

