



## Emergency stop and safety gate monitoring relays

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→ <b>DEVICE</b>	<b>SAFE C1</b>
→ <b>APPLICATIONS</b>	Safety controller for e-stop and gate monitoring applications
→ <b>APPROVALS</b>	CE, TÜV, UL, C-UL
→ <b>CONTACTS</b>	4 safety semiconductor outputs (OSSD)
→ <b>SPECIAL CHARACTERISTICS</b>	LED indicators for status and supply diagnostic Wearless semiconductor outputs, "AND", "OR" functions possible between several SAFE C1 Automatic start possible
→ <b>LED</b>	Power, channel 1 and channel 2 + flashing code
→ <b>OPERATING VOLTAGE</b>	24 V DC (+ 25 - 20 %) Overvoltage protection
→ <b>POWER CONSUMPTION</b>	ca. 3 W
→ <b>START UP DELAY / FALLBACK TIME</b>	<70 ms / <30 ms
→ <b>CONTACT CAPACITY max.</b>	total current 1,8 A
→ <b>CONTACT CAPACITY min. at 24 V DC (*)</b>	infinite
→ <b>SIMULTANEITY</b>	no (special variants possible)
→ <b>ENVIRONMENTAL TEMPERATURE</b>	-25°C to + 55°C
→ <b>SWITCHING CAPACITY</b>	up to 43 W
→ <b>CONTACT SECURITY</b>	short circuit proof

→ **OPERATING MODE**  
 (\*) We offer all devices who have a CONTACT CAPACITY of min. 100 mA at 24 V DC with hard gold-plated contacts.  
 In this way the CONTACT CAPACITY of min. 100 mA is only 4 mA.  
 Please ask our sales team!

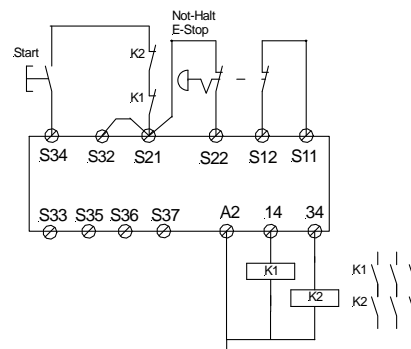
2-channel e-stop application with monitoring of reset circuit, opposite channels polarity and contact expansion.

The release button must be attached to the e-stop circuits (S11 / S12, S21 / S22) and the start button must be attached to the reset-circuit (S34 / A1). The activation of the semiconductor safety outputs takes place after closing of the reset circuit (pressing the start button).

By linkage more SAFE C1 with one another safety applications also complicated, with which different components are to be differently supervised, can be realized.

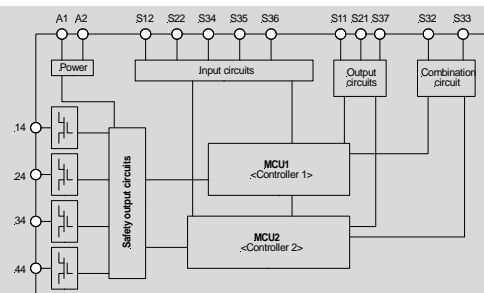
For monitoring of the external contactor, the NC contacts of the force guided contactors must be attached in series to the reset circuit.

A1 + 24 V DC  
 A2 0 V DC



→ **CONNECTION DIAGRAM**

→ **FUNCTION CIRCUIT DIAGRAM**



→ **Certifications according to Safety relevant substance data**  
 Depending on wiring (only max. achievable values are given)

EN ISO 13849-1/ EN 61508: PL, Cat. 4 / SIL3  
 MTTFd: 163 years / high, DC: high, CCF: achieved,  
 PFH: 2,87\*10<sup>-9</sup> 1/h, PFD: 2,01\*10<sup>-6</sup> 1/h, SFF: 0,9573