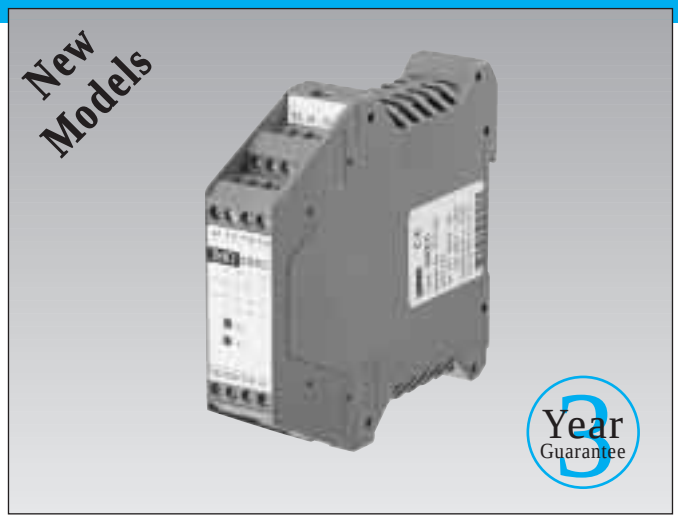
IMO Safety Expansion Module SREC

The SREC is a safety relay expansion module which can be used in conjunction with any IMO SR relay

- Three safety contacts
- Operating voltage 24VDC, 115 and 230VAC
- Any number of SRECs can be added
- Force guided contacts
- Self monitoring with redundancy
- Emergency stop
- Safety category 3 and stop category 0
- Conforms to EN60204-1, VDE113-1, EN954-1



Description

Up to 3 additional safety contact paths per device can be created with the expansion module SREC in combination with any IMO SR series relay. Therefore any existing system can thus be modularly expanded. Triggering is via the safety contact in the mother device. The SREC also provides message contacts for fault monitoring. The devices can be used in circuits up to safety category 3 according to EN954-1:1996.

The SREC expansion unit is connected to the mother device via four lines: the basic device (e.g., SR2C or SR3C) actuates the SREC relay, two lines are required for feedback/fault monitoring. Earth faults in the control lines are detected as well as any internal faults. **A multitude of SRECs can be connected to a basic device so the safety contacts can be adapted to your individual needs.** For example, personal safety can be guaranteed by simply adding a SREC when controlling a system with components that can represent an additional risk.

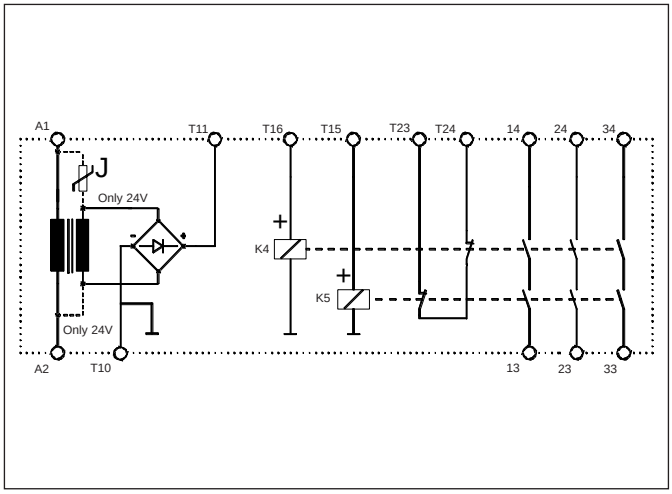
The SREC has been designed so it fulfils the requirements EN60204-1 for emergency stop devices stop category 0 and type 3 safety-category of EN954-1 when used in association with an IMO safety relay.

Specifications

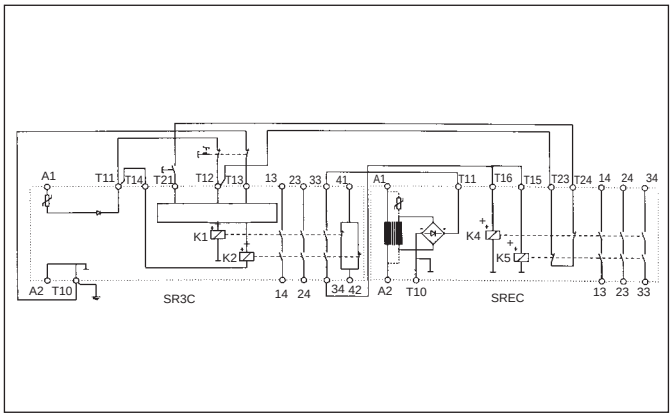
Operating voltage	24VDC, 115, 230VAC
Voltage tolerance	±10%
Power consumption	Approx 1VA
Control voltage on T11	24VDC
Control current	Approx 40mA
Contacts	3 n/o safety-contacts
Message contact	Only to be used as monitoring contact for basic device
Maximum, switching voltage	250VAC
Switching capacity of contacts	6A, 200VAC, 1500VA AC-12, 1.25A, 24VDC, 30W DC-12
Minimum current (contacts)	24V, 200mA
Fuse external (contacts)	4A slow blow or 6A quick acting
Terminals	Screw, maximum 2.5mm^2
Contact material	AgCdO
Mechanical life	2 x 10^7 switching operations
Electrical service life	1 x 10^5 switching operations
Test voltage	2.5kV (control voltage/contacts)
Temperature range	-75 to +55˚C DC, -15 to +40˚C AC
Conforms to	VDE0113, part 1/06.93, EN60204-1:1992 EN954-1:1996

Wiring connections

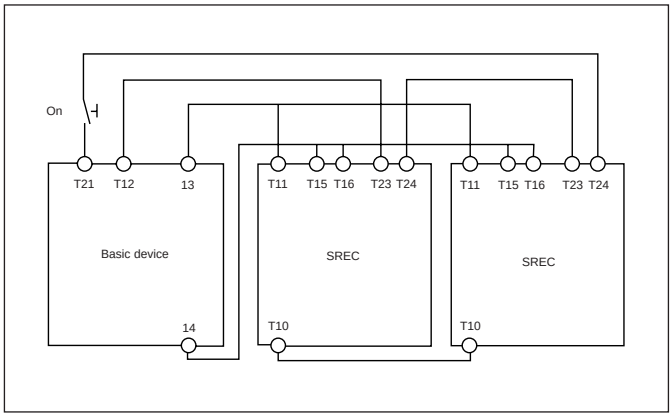
The SREC has force guided contacts so that faults can be detected from the basic device via the message contacts T23-T24. The relays are triggered via terminals T15 and T16. A further function of the unit is that a control voltage of 24V can be used from T11, which is connected to the safety contact of the basic device. The supply voltage is via A1 and A2, voltages available include 230VAC, 115VAC and 24VDC.



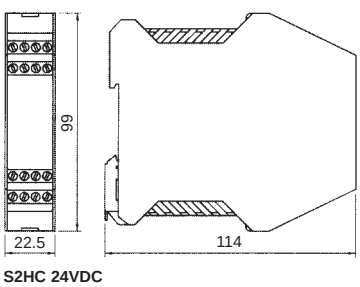
Connecting an SREC to a basic device
One of the safety contacts in the basic device is connected to terminals T11 and T15/T16 of the SREC, the message contacts T23-T24 are wired in series with the ON button.



Connecting a number of SRECs to a basic device
If more SRECs are to be integrated in the system, terminals T11 of the SRECs must be switched in parallel, as well as T10 and T15/T16.



Dimensions (mm)



S2HC 24VDC