

# Expansion Module for use with SCR-2 or SCR-3 Type: SEU-1

## OVERVIEW:

The SEU-1 is an expansion unit which offers 3 additional NC Safety Output Contacts.

An existing system using SCR-2 or SCR-3 can be expanded modularly.

The safety actuation is achieved from the basic SCR-2 or SCR-3 Safety Relay.

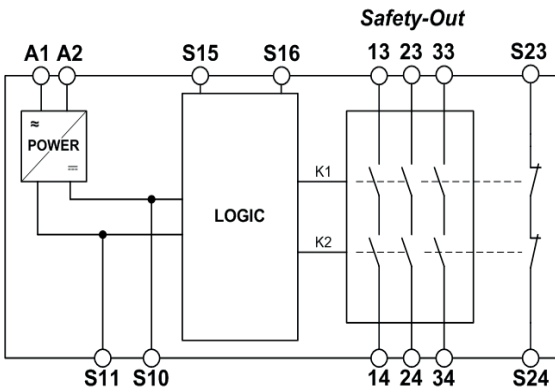
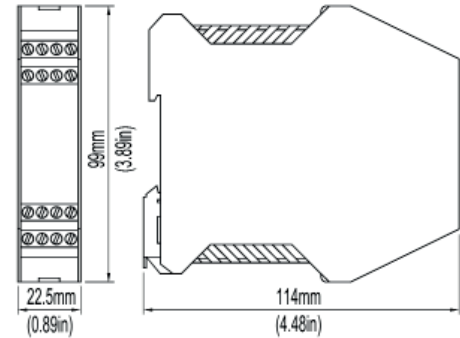
## FEATURES:

- 3NC Relay outputs
- 1NO Auxiliary contact (fault monitoring)
- Standards: EN60204-1, ISO13849-1, EN62061
- Stop Category: 1
- Up to PLe to ISO13849-1
- SILCL3 EN62061
- 3 Force guided contacts
- Fault monitoring by basic SCR device



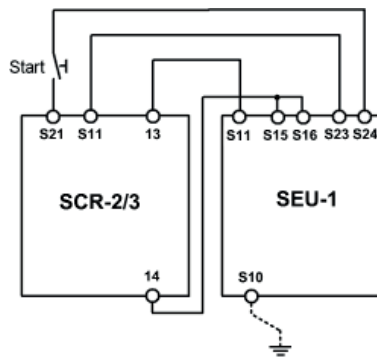
**Safety Expansion Relay  
3NC Outputs**

## DIMENSIONS:

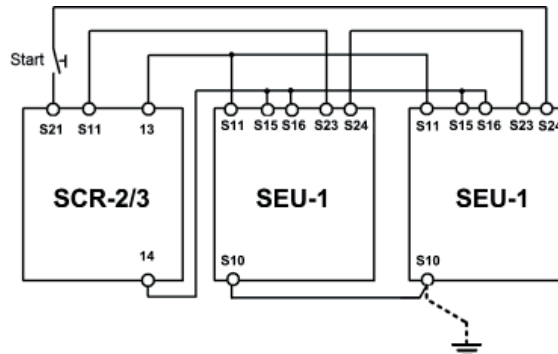


**Block Diagram and Electrical Connection SEU-1**

A1 A2	Power
S11	24Vdc Control Voltage
S10 S15 S16	Control Lines
S23 S24	Fault Monitoring
13-14	Safety Contact 1
23-24	Safety Contact 2
33-34	Safety Contact 3



**Connection of an SEU-1 to a basic device SCR-2 or SCR-3**



**Connection of several SEU-1 to a basic device SCR-2 or SCR-3**

**Standards:** EN60204-1 ISO13849-1 EN62061

Safety Switching Outputs	3NC
Auxiliary Contact	1NO
Operating Voltage	24Vac/dc 110Vac or 230Vac
Supply Deviation	+/-10%
Control Voltage at S11	24Vdc
Control Current S11 to S14	40mA approx.
Maximum Line Conductor Cross Section	2.5 sq mm
Maximum Length of Control Line	1000m with 0.75 sq mm
Contact Material	AgNi
Indication - Green	LED1 and LED2 OSSD closed
Contact Service Life	Mechanical 1x10 <sup>7</sup> Electrical 1x10 <sup>5</sup>
Safety Contact Breaking Capacity	AC 250V, 1500VA, 6A, ohmic 230V, 4A for AC15 DC 24V, 30W, 1.25A ohmic 24V, 30W, 2.0A for DC-13
External Fuse Protection - Safety Outputs	4A slow blow or 6A quick blow
Minimum Voltage and Current	24V, 20mA dc
Rated Insulation Voltage	250V
Degree of Protection	IP20
Rated Impulse Withstand Voltage	4kV
Operating Temperature	-15C to +40C
IP Protection IEC529	Terminals IP20
Mounting	35mm DIN rail
Weight	170g approx.

**Safety Classification and Reliability Data:** Specified PL or SILCL were determined under worst case conditions

<b>ISO13849-1</b>	
Performance Level	e
Category (ISO13849-1)	4
MTTFd	567 years
DC (average)	99%
Proof Test Interval (Life)	20 years
Safety Data Annual Usage	365 days per year 24 hours per day Test cycle 3600 seconds/cycle Full load AC15

<b>EN62061</b>	
SILCL	3
Proof Test Interval (life)	20 years
Hardware Fault Tolerance	1
DC (average)	99%
PFHd	1.2 x 10 <sup>-8</sup>

SALES NUMBER	TYPE	TERMINAL TYPE	SUPPLY VOLTAGE	OUTPUT CONTACTS	AUXILIARY OUTPUT CONTACTS
180010	SEU-1	Standard	24Vac/dc	3NC	1NO
180011	SEU-1	Screw	110Vac	3NC	1NO
180012	SEU-1	Terminals	230Vac	3NC	1NO
180010-P	SEU-1	Pluggable	24Vac/dc	3NC	1NO
180011-P	SEU-1	Screw	110Vac	3NC	1NO
180012-P	SEU-1	Terminals	230Vac	3NC	1NO