

Expansion Module with Time Delay for use with SCR-2/3 SEU-TD-1

OVERVIEW:

The SEU-TD-1 is an expansion unit which can be used with an existing system using SCR-2 or SCR-3 Safety Relays to allow delayed shutdown or timing to a safety application. Time delay is variable from 1 to 30 seconds.

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

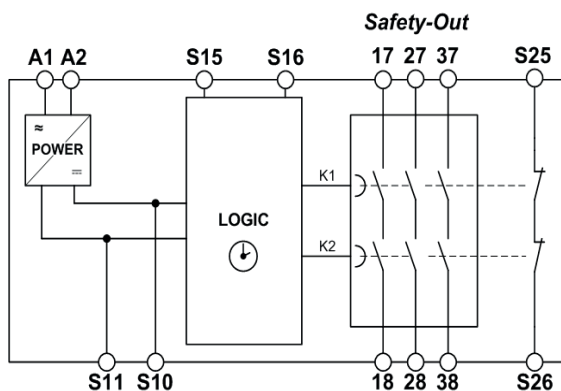
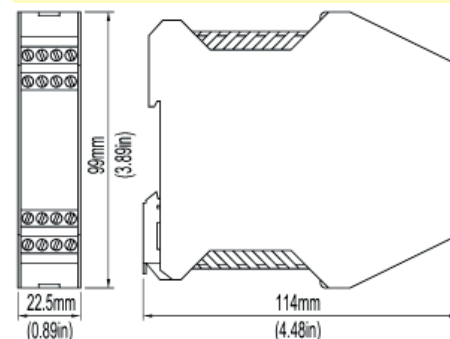
FEATURES:

- 3NC Relay outputs
- 1NO Auxiliary contact
- Standards: EN60204-1, ISO13849-1, EN62061
- Stop Category: 1
- SILCL2 EN62061
- Up to PLd to ISO13849-1
- 3 Force guided contacts
- Fault monitoring by basic SCR device



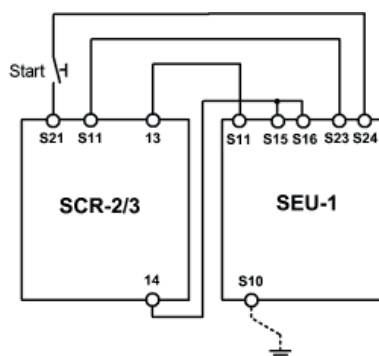
**Safety Expansion Relay
offering Delayed Outputs**

DIMENSIONS:

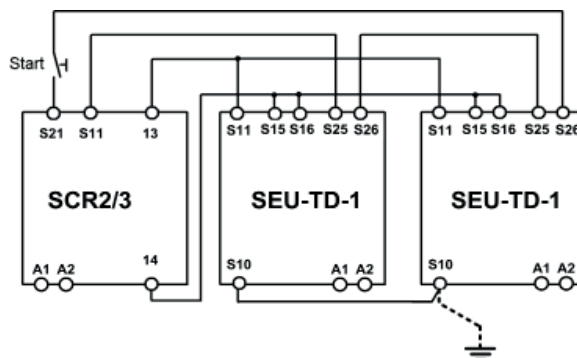


Block Diagram and Electrical Connection SEU-TD-1

| | |
|-------------|-----------------------|
| A1 A2 | Power |
| S11 | 24Vdc Control Voltage |
| S10 S15 S16 | Control Lines |
| S25 S26 | Fault Monitoring |
| 17-18 | Safety Contact 1 |
| 27-28 | Safety Contact 2 |
| 37-38 | Safety Contact 3 |



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



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

Standards: EN60204-1 ISO13849-1 EN62061

| | |
|---|---|
| Safety Switching Outputs | 3NC 1-30 secs continuously adjustable |
| Auxiliary Contact | 1NO monitoring contact for basic device |
| Operating Voltage | 24Vac/dc 110Vac or 230Vac |
| Supply Deviation | +/-10% |
| Control Voltage at S11 | 24Vdc |
| Control Current S11 to S14 | 40mA approx. |
| Monitored Reset Circuit Loop | Auto or monitored, manual reset |
| 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 ⁷ Electrical 1x10 ⁵ |
| 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 |
| Mounting | 35mm DIN rail |
| Weight | 0.25kg approx. |

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

| | |
|----------------------------|---|
| ISO13849-1 | |
| Performance Level | d |
| Category (ISO13849-1) | 3 |
| MTTFd | 487 years |
| DC (average) | 92.1% |
| 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 AC1 |

| | |
|----------------------------|-------------------------|
| EN62061 | |
| SILCL | 2 |
| Proof Test Interval (life) | 20 years |
| Hardware Fault Tolerance | 1 |
| DC (average) | 92.1% |
| PFHd | 1.03 x 10 ⁻⁷ |

| SALES NUMBER | TYPE | TERMINAL TYPE | SUPPLY VOLTAGE | DELAYED OUTPUT CONTACTS |
|--------------|----------|---------------------------|----------------|-------------------------|
| 180015 | SEU-TD-1 | Standard Screw Terminals | 24Vac/dc | 3NC 1NO |
| 180016 | SEU-TD-1 | | 110Vac | 3NC 1NO |
| 180017 | SEU-TD-1 | | 230Vac | 3NC 1NO |
| 180015-P | SEU-TD-1 | Pluggable Screw Terminals | 24Vac/dc | 3NC 1NO |
| 180016-P | SEU-TD-1 | | 110Vac | 3NC 1NO |
| 180017-P | SEU-TD-1 | | 230Vac | 3NC 1NO |