# Lovato electric
ENERGY AND AUTOMATION

SAFETY RELAY SRA… SERIES, MULTIFUNCTION, 2NO+1PNP, WITH FRONTAL TRIMMER SELECTION, AUXILIARY SUPPLY 24VDC, UP TO CAT.4, PLE

| | | |
|---|---|---|
| Product designation | | SRA |
| Product type designation | | Multifunction |
| **General characteristics** | | |
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| Functions | | Safety barrier with fail safe OSSD outputs; RFID; Emergency stop button; Gate monitoring applications; Two-hand devices control; Type 2 safety photocells |
| **Contact characteristics** | | |
| Type of contact | | 2NO+1PNP |
| **Operations** | | |
| Mechanical life | cycles | >$10^7$ |
| **Auxiliary supply** | | |
| Nominal auxiliary voltage supply | | 24VDC |
| Operating range | V | 19…29VDC |
| Overvoltage category | | III |
| Insulation voltage | kV | 4 |
| Protections | | Signaling output protected from overload |
| **Input characteristics** | | |
| Number of inputs | Nr. | 2 |
| Input current | mA | Typical 4.3 |
| Input voltage | | 0-30VDC |
| **Output characteristics** | | |
| Number of safe outputs NO | Nr. | 2 |
| Number of safe outputs NC | Nr. | 0 |
| Number of feedback outputs | Nr. | 1PNP |
| Output type | | Relays with forcibly guided contacts |
| Output contacts ratings | | AC1 250V: 6A-2000VA AC15 230V: 5A DC13 24V: 2A |
| UL 508 ratings | | Pilot duty: B300-Q300 |
| Mechanical life | cycles | >$10^7$ |
| Electrical life AC1 at 360 commutations/h | cycles | $10^5$ |

| Safety parameters | | | | |
|---|---|---|---|---|
| ISO 13849-1 security category | | | | Cat. 4 |
| ISO 13849-1 performance level | | | | PLe |
| **Mechanical features** | | | | |
| Fixing | | | | 35mm DIN rail |
| Weight | | | g | 150 |
| **Ambient conditions** | | | | |
| Protection degree | | | | IP40 on front IP20 on terminals |
| Pollution degree | | | | 2 |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -25 |
| | | max | °C | +55 |
| | Storage temperature | | | |
| | | min | °C | -30 |
| | | max | °C | +70 |
| Relative humidity | | | % | ≤95 |
| **Dimensions** | | | | |



| Wiring diagrams | |
|---|---|
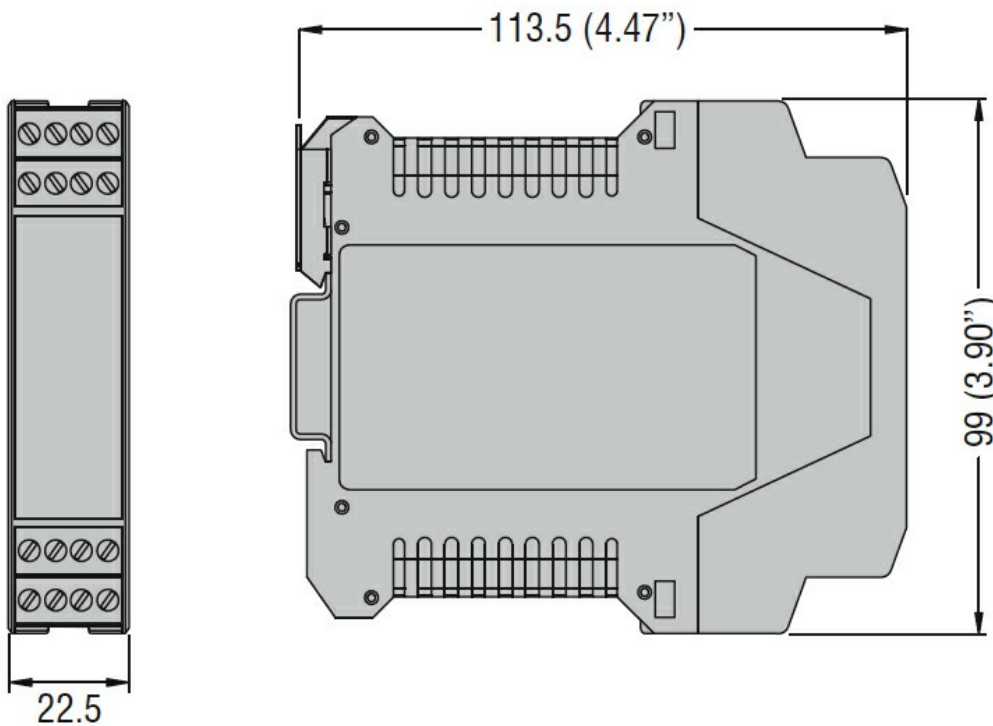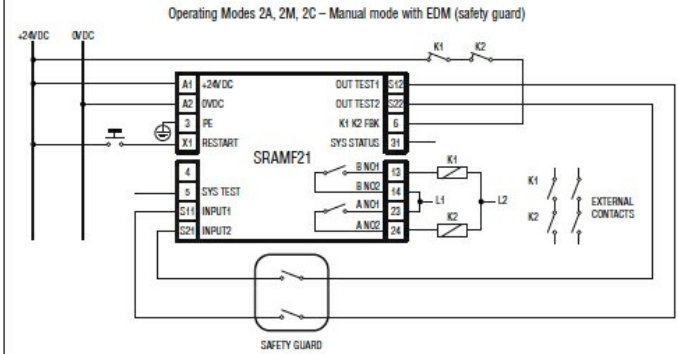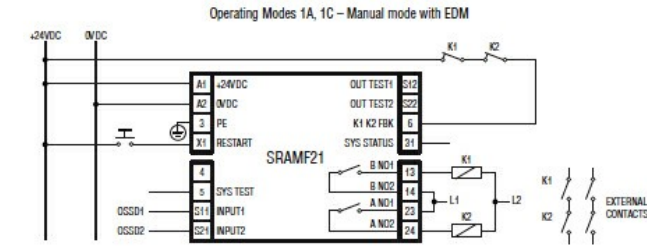
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### Operating Modes 1A, 1C – Manual mode with EDM



### Operating Modes 2A, 2M, 2C – Manual mode with EDM (safety guard)



(Mode 2M) When pin X1 is permanently connected to 24VDC the module works in Automatic Restart mode.

### Operating Modes 2A, 2M, 2C – Manual mode with EDM (emergency stop actuators)



(Mode 2M) When pin X1 is permanently connected to 24VDC the module works in Automatic Restart mode.

### Operating Modes 3A – Automatic mode with EDM (two-hand control)



### Operating Modes 3C – Automatic mode with EDM (two-hand control)



### Operating Modes 4A, 4C – Manual mode with EDM (type 2 photocells)
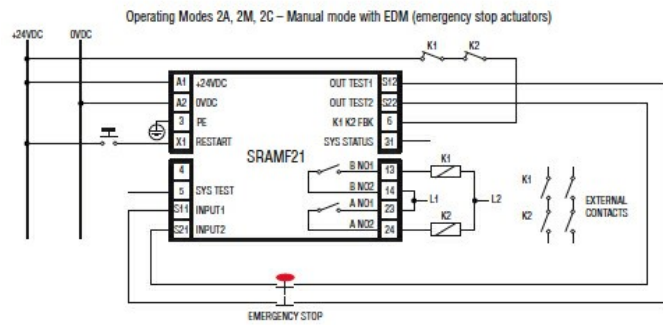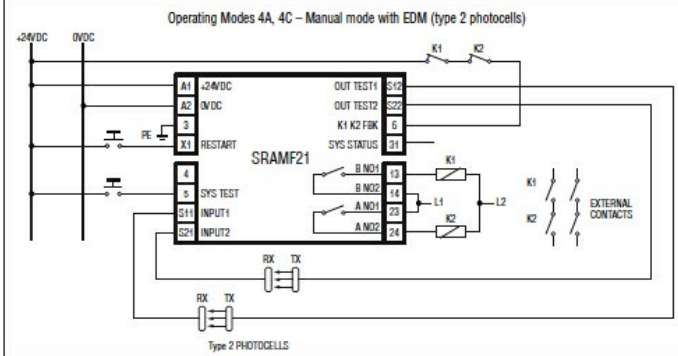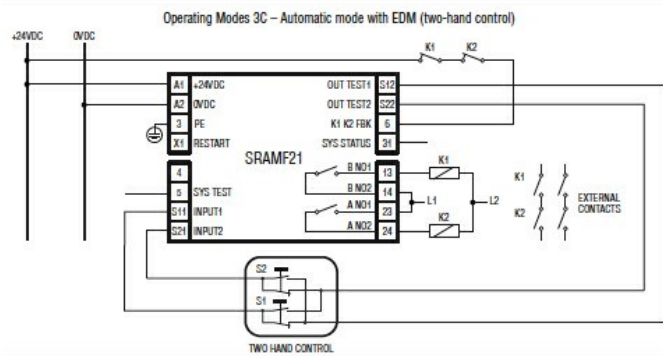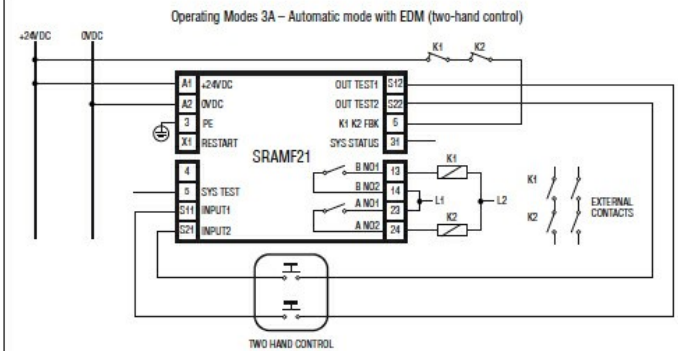


## Certifications and compliance

### Compliance

| | |
|---|---|
| | EN/BS 62061 |
| | EN/ISO/BS 13849-1 |

### Certificates

| | |
|---|---|
| | cULus |
| | TÜV |

## ETIM classification

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|---|---|
| ETIM 8.0 | EC001449 - Device for monitoring of safety-related circuits |