



Level control relay multifunction. Single voltage. Modular version LVM40 Multifunction: emptying and alarms, filling and alarms, emptying with priority start-up change, filling with priority start-up change, well draining and tank filling and alarms

Product designation

Product type designation

Function

#### Auxiliary supply

|  |                  |       |    |
|--|------------------|-------|----|
| Supply voltage Type                        | Single voltage   |       |    |
| Rated auxiliary supply voltage $U_s$<br>AC | min              | VAC   | 24 |
| Operating voltage range                    | 0.85...1.1 $U_s$ |       |    |
| Rated frequency                            | Hz               | 50/60 |    |
| Power consumption Max                      | VA               | 4.5   |    |
| Power dissipation Max                      | W                | 2.8   |    |

#### Output characteristics

|                                  |   |                      |  |
|----------------------------------|---|----------------------|--|
| Number of connectable electrodes | Nr.   | 5                    |  |
| Type of electrode                | Electrode and electrode holders: SN1 / SCM / CGL / PS31 / PS3S or similar |                      |  |
| Electrode voltage                | 10 Vpp  |                      |  |
| Sensitivity                      | k $\Omega$  | 2.5...200 adjustable |  |

#### Time delay

|                      |         |   |  |
|----------------------|---------|---|--|
| Tripping time        | s       | 1 |  |
| Resetting time       | s       | 1 |  |
| Probe tripping delay | 1...10s |   |  |

#### Relay outputs

|                  |  |   |  |
|------------------|--|---|--|
| Number of relays | Nr.  | 2 |  |
| Relay state      | Normally de-energised, energises at tripping |   |  |

|   |        |   |
|---|--------|---|
| Contact arrangement                                       |        | 1 changeover contact C/O-SPDT + 1 contact NO-SPST |
| Rated operational voltage AC (IEC)                        | VAC    | 250   |
| Maximum switching voltage                                 | VAC    | 400   |
| IEC Conventional free air thermal current I <sub>th</sub> | A      | 8   |
| UL/CSA and IEC/EN 60947-5-1 designation                   |        | B300  |
| Electrical life (with rated load)                         | cycles | 10 <sup>5</sup>                                   |
| Mechanical life   | cycles | 30x10 <sup>6</sup>                                |

### Indications

|            |  |  |
|------------|--|--|
| Indication |  | 1 green LED indicator for power on 2 red LEDs for relay state 2 red LEDs for probe state |
|------------|--|--|

### Functions

|  |     |
|--|-----|
| 3 detecting electrodes (MIN, MAX and COM)                      | No  |
| 5 detecting electrodes (MIN1, MAX1, MIN2, MAX2 and COM)        | Yes |
| Sensitivity adjustment 2.5...50k Ω                             | No  |
| Sensitivity adjustment 2.5...100k Ω                            | No  |
| Sensitivity adjustment 2.5...200k Ω                            | Yes |
| Adjustable sensitivity full-scale value 25-50-100-200 k Ω      | Yes |
| Separate sensitivity adjustment for MAX probe (foam detection) | Yes |
| Emptying function  | Yes |
| Filling function   | Yes |
| Emptying function with MIN and/or MAX alarm                    | Yes |
| Filling function with MIN and/or MAX alarm                     | Yes |
| Emptying function with pump priority change                    | Yes |
| Filling function with pump priority change                     | Yes |
| Tank filling, well drawing and alarm                           | Yes |
| Filling-emptying adjustment selector                           | No  |
| Programming selector for 5 different                           | Yes |
| Motor start-up priority change                                 | No  |

### Connections

|                                 |     |                 |     |
|---------------------------------|-----|-----------------|-----|
| Tightening torque for terminals | max | Nm              | 0.8 |
|                                 | max | Ibin            | 7   |
| Conductor cross section         |     |                 |     |
| AWG/Kcmil                       | min | AWG             | 24  |
|                                 | Max | AWG             | 12  |
| IEC                             | min | mm <sup>2</sup> | 0.2 |
|                                 | Max | mm <sup>2</sup> | 4   |

### Insulations

|  |     |      |
|--|-----|------|
| Rated insulation voltage U <sub>i</sub>          | V   | 415  |
| Rated impulse withstand voltage U <sub>imp</sub> | kV  | 6    |
| Operating frequency withstand voltage            | kV  | 4    |
| Double insulation Supply / relay / electrode     | VAC | ≤250 |

### Ambient conditions

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -20 |
| max | °C | +60 |

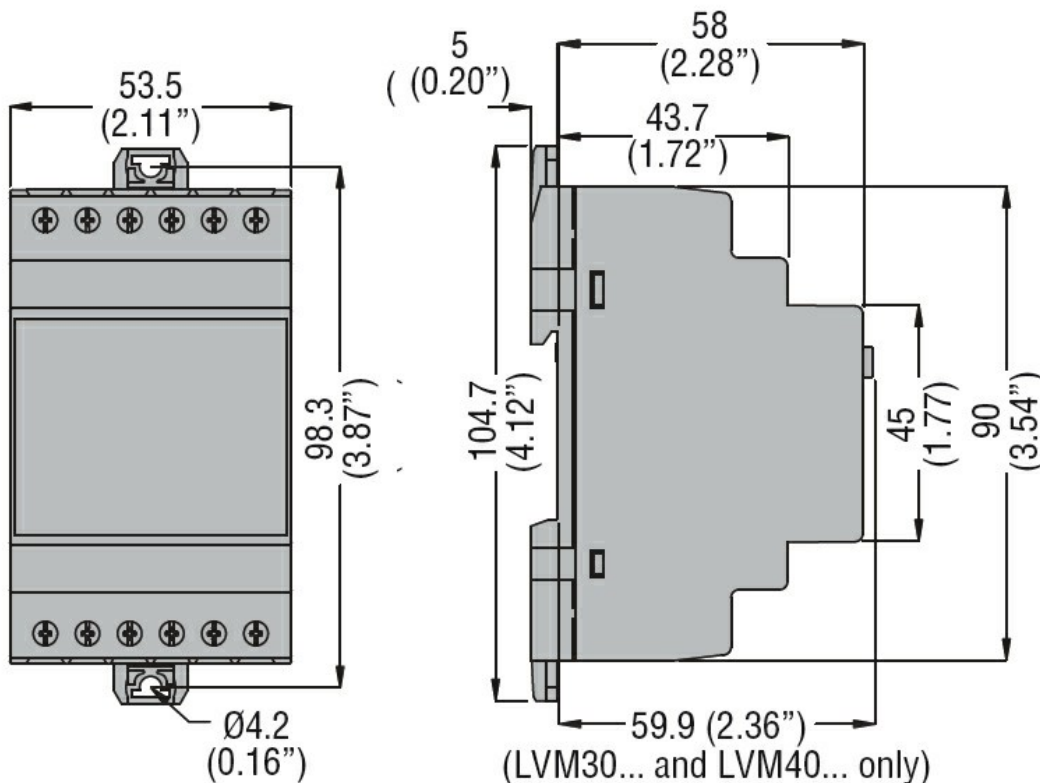
Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -30 |
| max | °C | +80 |

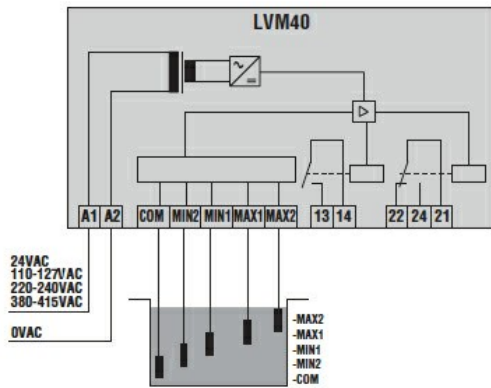
**Housing**

|                          |   |                     |
|--------------------------|---|---------------------|
| Execution                | Modular DIN rail mounting   |                     |
| N° of modules            | 3   |                     |
| Material                 | Self-extinguishing polyamide                                      |                     |
| Mounting                 | 35mm DIN rail (IEC/EN 60715) or by screws using extractable clips |                     |
| IEC degree of protection | IP40 on front / IP20 on terminals                                 |                     |
| Dimensions (W x H x D)   | mm  | 53.5 x 104.7 x 64.9 |
| Weight                   | g   | 278                 |

**Dimensions**



**Wiring diagrams**



## Certifications and compliance

### Compliance

CSA C22.2 n° 14

IEC/EN 60255-5

IEC/EN 61000-6-2

IEC/EN 61000-6-3

UL508

### Certificates

cULus

EAC

## ETIM classification

ETIM 8.0

EC001447 - (Fill)  
level monitoring  
relay