Product data sheet

RM35LV14MW
liquid level control relay RM35-L - 24..240 V AC/DC - 1 C/O

Main
- Range of product: Zelio Control
- Product or component type: Modular measurement and control relays
- Relay type: Level control relay
- Relay name: RM35L
- Relay monitored parameters: Detection by discrete sensors
- Time delay: Adjustable 0.1...5 s, +/- 10 %
- Switching capacity in VA: 1250 VA
- Minimum switching current: 10 mA at 5 V DC
- Maximum switching current: 5 A AC/DC
- Power consumption: <= 5 VA AC
- Utilisation category: AC-12 conforming to IEC 60947-5-1
- Utilisation category: AC-13 conforming to IEC 60947-5-1
- Utilisation category: AC-14 conforming to IEC 60947-5-1
- Utilisation category: AC-15 conforming to IEC 60947-5-1
- Utilisation category: DC-12 conforming to IEC 60947-5-1
- Utilisation category: DC-13 conforming to IEC 60947-5-1

Complementary
- Reset time: 1000 ms
  4000 ms
- Maximum switching voltage: 250 V AC/DC
- [Un] rated nominal voltage: 24...240 V AC/DC 50/60 Hz +/- 10 %
- Supply voltage limits: 20.4...264 V AC/DC
- Operating voltage tolerance: - 15 % + 10 % Un
- Power consumption: <= 1.5 W DC
- Output contacts: 1 C/O
- Nominal output current: 5 A
- Delay at power up: 0.5 s
- Measurement accuracy: +/- 10 % of the full scale value

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
<table>
<thead>
<tr>
<th><strong>Repeat accuracy</strong></th>
<th>+/- 20 % for the HS range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement error</strong></td>
<td>+/- 2 % for time delay</td>
</tr>
<tr>
<td><strong>Cable distance between devices</strong></td>
<td>100 m</td>
</tr>
<tr>
<td><strong>Sensitivity adjustment</strong></td>
<td>5...100 %</td>
</tr>
<tr>
<td><strong>Supply current for sensors</strong></td>
<td>&lt;= 40 mA</td>
</tr>
<tr>
<td><strong>Cable capacitance</strong></td>
<td>&lt;= 10 nF probe cable</td>
</tr>
</tbody>
</table>
| **Marking** | CE : 73/23/EEC  
CE : EMC 89/336/EEC  |
| **Overvoltage category** | III conforming to IEC 60664-1 |
| **Insulation resistance** | > 500 MΩ at 500 V DC between supply and relay output conforming to IEC 60255-5  
> 500 MΩ at 500 V DC between measurement and relay output conforming to IEC 60664-1  
> 1 MΩ at 500 V DC between supply and measurement conforming to IEC 60255-5  
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> 1 MΩ at 500 V DC between supply and measurement conforming to IEC 60664-1 |
| **[UI] rated insulation voltage** | 250 V conforming to IEC 60664-1 |
| **Operating position** | Any position without derating |
| **Connection - terminals** | Screw terminals 1 x 0.5...1 x 4 mm² - AWG 20...AWG 11, solid cable without cable end  
Screw terminals 2 x 0.5...2 x 2.5 mm² - AWG 20...AWG 14, solid cable without cable end  
Screw terminals 1 x 0.2...1 x 2.5 mm² - AWG 24...AWG 12, flexible cable with cable end  
Screw terminals 2 x 0.2...2 x 1.5 mm² - AWG 24...AWG 16, flexible cable with cable end |
| **Tightening torque** | 0.6...1 N.m conforming to IEC 60947-1 |
| **Housing material** | Self-extinguishing plastic |
| **Local signalling** | LED green for power ON  
LED yellow for relay ON  
LED yellow for timer ON |
| **Mounting support** | 35 mm symmetrical DIN rail conforming to EN/IEC 60715 |
| **Electrical durability** | 100000 cycles |
| **Mechanical durability** | 30000000 cycles |
| **Operating rate** | <= 360 operations/hour under full load |
| **Safety reliability data** | MTTFd = 182.6 years  
B10d = 170000 |
| **Width** | 35 mm |

**Environment**

| **Immunity to microbreaks** | 100 ms DC  
90 ms AC |
| **Electromagnetic compatibility** | Emission standard for industrial environments conforming to EN/IEC 61000-6-4  
Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3  
Immunity for industrial environments conforming to NF EN/IEC 61000-6-2 |
| **Standards** | EN/IEC 60255-6 |
| **Product certifications** | CSA  
C-Tick  
GL  
GOST  
UL |
| **Ambient air temperature for storage** | -40...70 °C |
| **Ambient air temperature for operation** | -20...50 °C |
| **Relative humidity** | 95 % at 55 °C conforming to IEC 60068-2-30 |
| **Vibration resistance** | 0.35 mm (f = 5...57.6 Hz) conforming to IEC 60068-2-6  
1 gn (f = 57.6...150 Hz) conforming to IEC 60255-21-1 |
| **Shock resistance** | 15 gn for 11 ms conforming to IEC 60255-21-1 |
| **Pollution degree** | 3 conforming to IEC 60664-1 |
| **Dielectric test voltage** | 2 kV AC 50 Hz, 1 min conforming to IEC 60255-5  
2 kV AC 50 Hz, 1 min conforming to IEC 60664-1 |
### Offer Sustainability

<table>
<thead>
<tr>
<th>Sustainable offer status</th>
<th>Green Premium product</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoHS (date code: YYWW)</td>
<td>Compliant - since 0701 - Schneider Electric declaration of conformity</td>
</tr>
<tr>
<td>REACh</td>
<td>Reference not containing SVHC above the threshold</td>
</tr>
<tr>
<td>Product environmental profile</td>
<td>Available Product Environmental Profile</td>
</tr>
<tr>
<td>Product end of life instructions</td>
<td>Available End of Life Information</td>
</tr>
</tbody>
</table>

### Contractual warranty

| Warranty period | 18 months |
Level Control Relays

Dimensions and Mounting

![Diagram showing dimensions and mounting of Level Control Relays RM35LV14MW]
Level Control Relays

Wiring Diagram
Function Diagrams

Control of Two Levels

Fill/Empty function

Legend
Un Nominal supply voltage
(1) Min. level
(2) Max. level
11-12/11-14, 21-22/21-24 Output relay connections
Relay status: black color = energized.

Control of One Level

Empty function T on

Empty function T off

Fill function T on

Fill function T off

Legend
Tt Time delay after crossing of threshold
Un Supply voltage
(1) Level threshold
11-12/11-14, 21-22/21-24 Output relay connections
Relay status: black color = energized.