



Main

Range of Product	Zelio Control
Product or Component Type	Industrial measurement and control relays
Relay Type	Liquid level control relay
Relay name	RM4-L
Relay monitored parameters	Detection by resistive probes
Time delay	Without
Power consumption	1.9 VA AC
Contacts type and composition	1 C/O

Complementary

Maximum switching voltage	440 V AC
[Un] rated nominal voltage	24 V AC 50/60 Hz +/- 5 %
Operating voltage tolerance	0.85...1.1 Uc
Output contacts	1 C/O
Maximum electrode voltage	24 V AC
Maximum electrode current	1 mA
Maximum cable capacity	0 mF
Sensitivity scale	5...100 kOhm
Marking	CE : LVD 73/23/EEC CE : EMC 89/336/EEC
Overvoltage category	III IEC 60664-1
[Ui] rated insulation voltage	500 V IEC
Supply disconnection value	> 0.1 Uc
Operating position	Any position without derating
Connections - terminals	Screw terminals, 2 x 1.5 mm ² flexible with cable end Screw terminals, 2 x 2.5 mm ² flexible without cable end
Tightening torque	5.31...9.74 lbf.in (0.6...1.1 N.m)
Mechanical durability	30000000 cycles
[Ith] conventional free air thermal current	8 A
[Ie] rated operational current	2 A 158 °F (70 °C) 24 V DC-13 IEC 60947-5-1/1991 2 A 158 °F (70 °C) 24 V DC-13 VDE 0660 3 A 158 °F (70 °C) 115 V AC-15 IEC 60947-5-1/1991 3 A 158 °F (70 °C) 115 V AC-15 VDE 0660 3 A 158 °F (70 °C) 24 V AC-15 IEC 60947-5-1/1991 3 A 158 °F (70 °C) 24 V AC-15 VDE 0660 3 A 158 °F (70 °C) 250 V AC-15 IEC 60947-5-1/1991 3 A 158 °F (70 °C) 250 V AC-15 VDE 0660 0.1 A 158 °F (70 °C) 250 V DC-13 IEC 60947-5-1/1991 0.1 A 158 °F (70 °C) 250 V DC-13 VDE 0660 0.3 A 158 °F (70 °C) 115 V DC-13 IEC 60947-5-1/1991 0.3 A 158 °F (70 °C) 115 V DC-13 VDE 0660
Switching capacity in mA	10 mA 12 V
Switching voltage	250 V AC
Contacts material	90/10 silver nickel contacts
Number of cables	2
Width	0.89 in (22.5 mm)
Terminals description ISO n°1	(15-16-18)OC (A1-A2)CO (B1-B2-B3)CO

Output relay state	According to chosen function
9 mm pitches	2.5
Net Weight	0.36 lb(US) (0.165 kg)

Environment

Electromagnetic compatibility	Electrostatic discharge 6 kV contact discharge)level 3 IEC 61000-4-2 Electrostatic discharge 8 kV air discharge)level 3 IEC 61000-4-2
Standards	EN/IEC 60255-6
Product certifications	UL GL CSA
Ambient Air Temperature for Storage	-40...185 °F (-40...85 °C)
Ambient air temperature for operation	-4...149 °F (-20...65 °C)
Relative humidity	15...85 % 3K3 IEC 60721-3-3
IP degree of protection	IP20 IEC 60529 terminals) IP50 IEC 60529 casing)
Pollution degree	3 IEC 60664-1
Dielectric test voltage	2.5 kV
Resistance to electrostatic discharge	6 kV contact IEC 61000-4-2 level 3 8 kV air IEC 61000-4-2 level 3
Resistance to electromagnetic fields	9.14 V/m (10 V/m) IEC 61000-4-3 level 3
Resistance to fast transients	2 kV IEC 61000-4-4 level 3
Protection against electric shocks	2 kV level 3 IEC 61000-4-5
Disturbance radiated/conducted	CISPR 22 - class A CISPR 11 group 1 - class A

Ordering and shipping details

Category	22376-RELAYS-MEASUREMENT(RM4)
Discount Schedule	CP2
GTIN	3389110334692
Nbr. of units in pkg.	1
Package weight(Lbs)	6.07 oz (172.0 g)
Returnability	No
Country of origin	ID

Packing Units

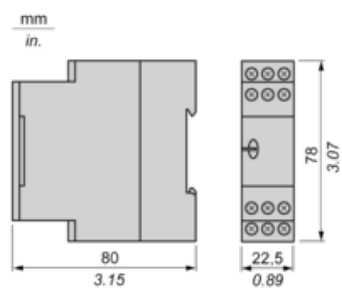
Unit Type of Package 1	PCE
Package 1 Height	1.06 in (2.7 cm)
Package 1 width	3.23 in (8.2 cm)
Package 1 Length	3.35 in (8.5 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	47
Package 2 Weight	18.83 lb(US) (8.539 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

Contractual warranty

Warranty	18 months
----------	-----------

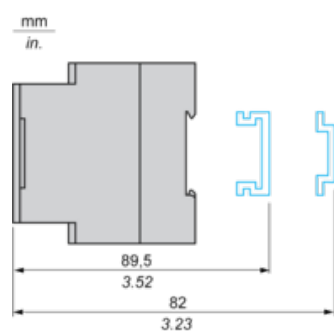
Liquid Level Control Relays

Dimensions

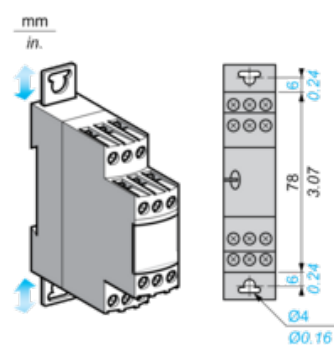


Liquid Level Control Relays

Rail mounting

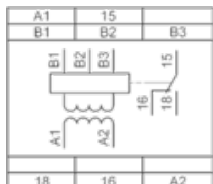


Screw fixing



Liquid Level Control Relays

RM4LG01 Wiring Diagram

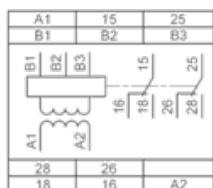


A1-A2, B1, B2, B3 Supply voltage Electrodes (see table below)

15-18, 15-16 1st C/O contact of the output relay

Electrodes and level controlled	
B1	Reference or tank earth electrode
B2	High level
B3	Low level

RM4LA32 Wiring Diagram



A1-A2, B1, B2, B3 Supply voltage Electrodes (see table below)

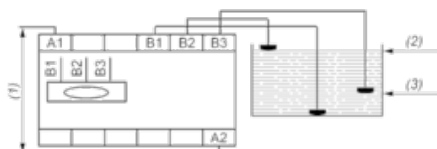
15-18, 15-16 1st C/O contact of the output relay

25-28, 25-26 2nd C/O contact of the output relay

Electrodes and level controlled	
B1	Reference or tank earth electrode
B2	High level
B3	Low level

Connection Examples

Control by Electrodes

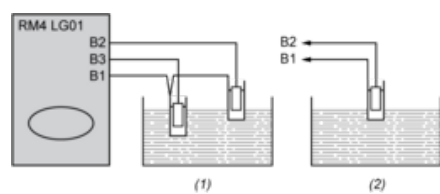


(1) Supply voltage

(2) High level

(3) Low level

Control by Probes



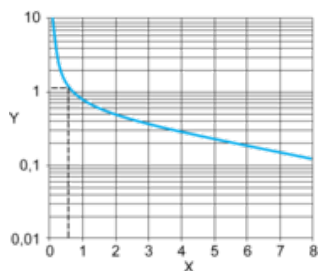
(1) 2 levels

(2) 1 level

Electrical Durability and Load Limit Curves

AC Load

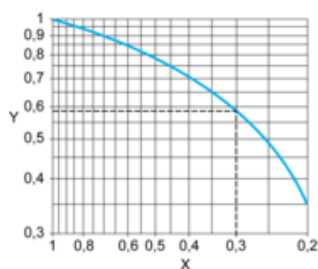
Curve 1: Electrical durability of contacts on resistive load in millions of operating cycles



X Current broken in A

Y Millions of operating cycles

Curve 2: Reduction factor k for inductive loads (applies to values taken from durability Curve 1)

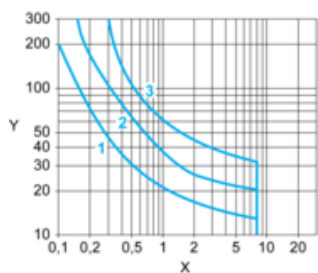


X Power factor on breaking ($\cos \phi$)

Y Reduction factor K

DC Load

Load limit curve



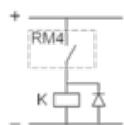
X Current in A

Y Voltage in V

1 L/R = 20 ms

2 L/R with load protection diode

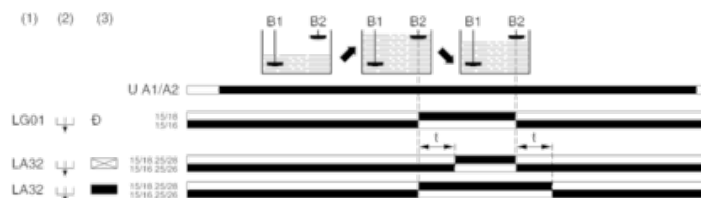
3 Resistive load



Function Diagrams

Empty Function

Maximum level detection (2 electrodes or 1 probe LA9RM201)



Legend

U A1/A2 Supply voltage

B1 Reference electrode

B2 High/Low level electrode

(1) Type RM4

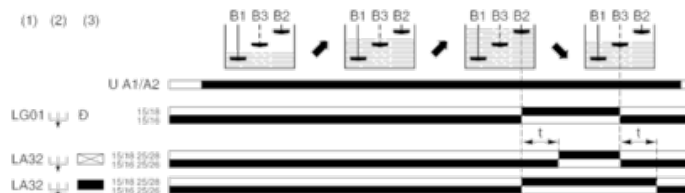
(2) Function switch

(3) Time delay switch

15/16, 15/18; 25/26, 25/28 Output relays connections

Relay status: black color = energized.

Regulation between a maximum and a minimum level (3 electrodes or 2 probes LA9RM201)



Legend

U A1/A2 Supply voltage

B1 Reference electrode

B2 High level electrode

B3 Low level electrode

(1) Type RM4

(2) Function switch

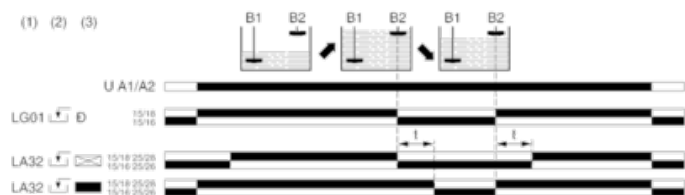
(3) Time delay switch

15/16, 15/18; 25/26, 25/28 Output relays connections

Relay status: black color = energized.

Fill Function

Maximum level detection (2 electrodes or 1 probe LA9RM201)



Legend

U A1/A2 Supply voltage

B1 Reference electrode

B2 High/low level electrode

(1) Type RM4

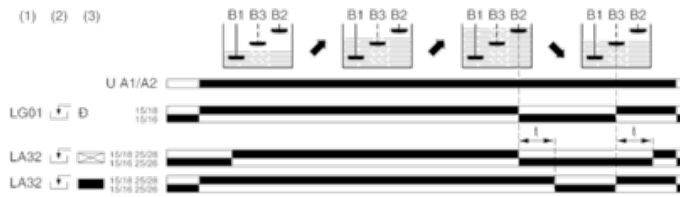
(2) Function switch

(3) Time delay switch

15/16, 15/18; 25/26, 25/28 Output relays connections

Relay status: black color = energized.

Regulation between a maximum and a minimum level (3 electrodes or 2 probes LA9RM201)



Legend

U A1/A2 Supply voltage

B1 Reference electrode

B2 High level electrode

B3 Low level electrode

(1) Type RM4

(2) Function switch

(3) Time delay switch

15/16, 15/18; 25/26, 25/28 Output relays connections

Relay status: black color = energized.

NOTE: On RM4LA32, a time delay can be set on energization or de-energization of the output relay.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Schneider Electric:](#)

[RM4LG01B](#)