



Device Introduction

Shiva Amvaj Liquid Level Monitoring is a device to automate conductive liquid pumping system with two working modes :

- 1- Dry running Protection
- 2-Liquid level control

MODEL : LMB-2M
CODE : 16B1
WEIGHT : 175 gr
(72 x86 x60) mm
IP 30



SCAN QR TO VIEW
THE PRODUCT

VER:9801

Device Function

Upon connecting power, AC indicator (Green) placed on device gets turned on and according to operation mode, device works as follows:

Mode 1 : terminal SELECT is connected to phase(SELECT → PH) In this mode device is used to prevent motor from dry running in a water well . In such a way that when liquid level reaches to sensor H, relay is connected (terminal 15 connects to 18) and motor starts working. If liquid level is lower than sensor L, relay is disconnected (terminal 15 disconnects from 18) and motor stops working. (scheme number1)

Mode 2 : SELECT terminal isn't connected to phase(SELECT → PH)

In this mode device is used to control liquid level in reservoir and to prevent liquid from overflowing, in such a way that after reaching liquid level to sensor H, relay gets disconnected (terminal 15 disconnects from 18). If liquid level is lower than sensor L, relay gets connected (terminal 15 connects to 18). (scheme number2)

Note 1: relay status change is after passing adjusted time DELAY.

Note 2: if common sensor C gets disconnected, device operation fails and relay will always be disconnected in MODE 1 and connected in MODE 2.

Following table presents device operation in summary.

DEVICE Function TABLE

Status of pit or reservoir	Status of liquid contact to sensor L	Status of liquid contact to sensor H	MODE 1: SELECT → PH		MODE 2: SELECT → PH	
			Relay output	Indicator ON	Relay output	Indicator ON
Is being filled	No contact	No contact	disconnected	AC	connected	AC REL
Is being filled	In contact	No contact	disconnected	AC L	connected	AC REL L
Is being filled	In contact	In contact	connected	AC REL H L	disconnected	AC H L
Is being empty	In contact	No contact	connected	AC REL L	disconnected	AC L
Is being empty	No contact	No contact	disconnected	AC	connected	AC REL

Features

- Control the liquid level with variable resistance
- Indicators
 - AC: electricity of the grid
 - REL : relay status
 - H : High level
 - L : Low level
- Options
 - control liquid level or protection against dry running
 - adjust device sensitivity based on liquid resistance(sensitivity)
 - adjust relay On/OFF delay
 - easily mounted on rail and other surfaces

Technical Specifications

- Supply voltage : 180-250VAC / 50-60HZ
- Input
 - C : common sensor
 - L : sensor of low level
 - H : sensor of High level
- On - Off Delay : 1-10 sec
- Sensitivity : 1-20KΩ
- Power consumption : ~0.2VA
- Operating condition
 - Temperature : -20°C .. +65°C
 - Humidity : 70%
- Output : 5A relay

Installation Instruction

After installing device on rail or other surfaces using the rail embedded inside package , first put C sensor in the lowest location(bottom of reservoir or water well) and connect its wire to terminal C.Locate sensor L at the lowest and sensor H at the highest altitude then connect intended wires to terminals L and H on device respectively.

According to your need, do wiring based on schematics presented behind the sheet.

Note: we recommend you using Shiva Amvaj sensors because these sensors are made considering all technical tips like resistance against corrosion, wide contact surface to liquid, proper connection and ...

Respecting the customer is our duty

3 year no question asked guarantee under these conditions;

1-at most it should be within 3 years from the date printed on the label of the product

2-the label on the product should be safe and sound

Shiva Amvaj products in accordance with international standards and with a 3 year no question asked guarantee are presented

ISO 9001-2015



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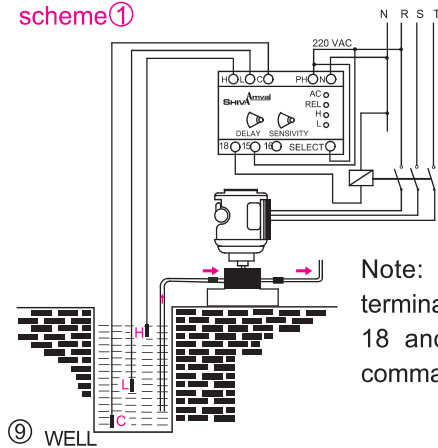
Email: info@shivaamvaj.com

Shiva Amvaj Company is also presenting services in cyberspace

Shiva Amvaj number: 0098 913 403 43 51

Motor protection against dry running

scheme①

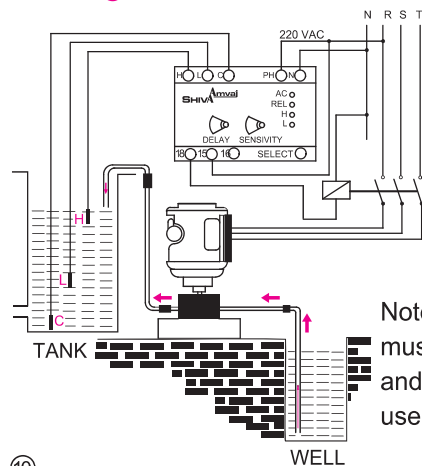


Note: connect SELECT terminal to Phase and use 18 and 15 terminals in command circuit.

⑨ WELL

Water Level Control in reservoir

scheme②

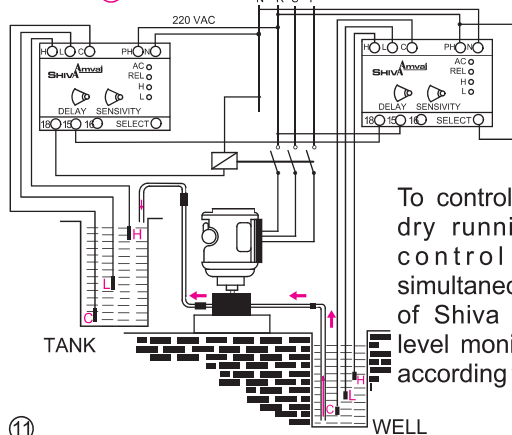


Note: SELECT terminal must be released and 15 and 18 terminals must be used in command circuit.

⑩ TANK WELL

Protecting motor against dry running and controlling reservoir simultaneously

scheme③

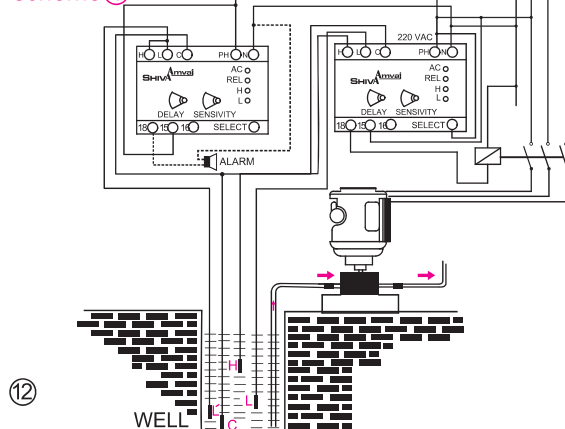


To control well against dry running and to control reservoir simultaneously, use two of Shiva Amvaj liquid level monitoring device according to scheme ③.

⑪ TANK WELL

Protecting motor against dry running with alarm

scheme④



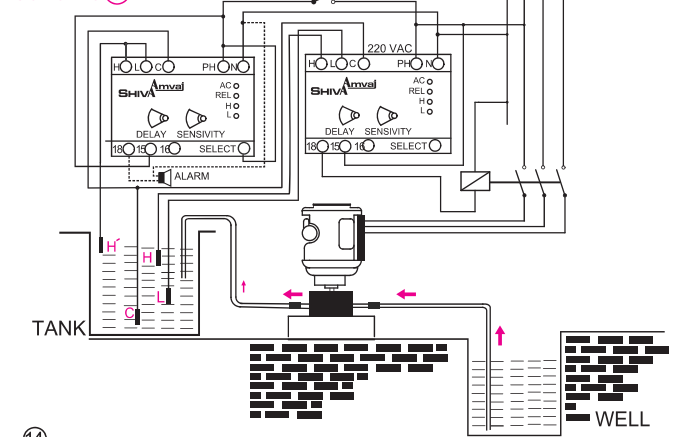
⑫ WELL

If you want to protect a motor in a water or reservoir against dry running or finishing liquid in reservoir precisely with alarm, use scheme 4 (two Shiva Amvaj liquid level monitoring device prepared with 4 sensors). 4 sensors are used in this scheme and L is added to them. According to the scheme if L sensor moves or departs from its wire and places at the bottom of reservoir or well, the liquid will decrease to L level and alarm will start going off in order to remove faults.

⑬

Reservoir level protection with alarm

scheme⑤



⑭ TANK WELL

As you know the H sensor controls the high level of reservoir and if H sensor moves through any reason or locate at the bottom of it through wire stripping, Floater can not recognize reservoir filling even by overflowing. Though the liquid will overflow up until the motor gets off manually. To prevent this it is suggested to use scheme⑤ With 4 sensors and 2 Shiva Amvaj floaters. By following this scheme if liquid level increases from H and reaches to H' by any reason, the alarm will go off in order to remove faults.

⑮

Note: it is possible to turn the motor off when alarming by putting a closed contact (15 and 16 terminals related to alarm) in series with contactor coil in ④ And ⑤ Schemes

Note: RESET buttons in ④ and ⑤ Schemes and work as typical ON/OFF buttons which can be located in off condition after alarming until it removes fault. Prepare special and unique Shiva Amvaj sensors separately. Each package contains 3 sensors.

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