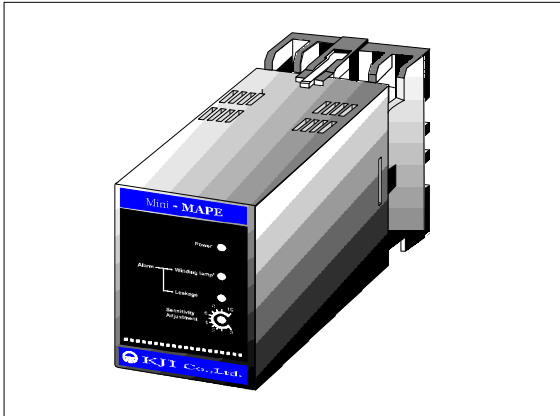


<b>MODEL</b>	mini-eMAP
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mini-eMAP is designed to monitor pump for safe use by alarm contact output which is received signals from motor temperature sensor and leakdetection sensor in the pump.

### 1. GENERAL SPECIFICATION

- Construction: Plug in
- Mounting: Wall or DIN Rail
- Wiring: M3.5 Screw terminal
- Adjustment: Moisture sensing range 0 ~ 20kΩ

#### 1.1 INPUT

- CH1: Thermal protector sensor ( Bi-metal sensor- Normal close type)
- CH2: Moisture leakage sensor ( Electrode sensor )

#### 1.2 OUTPUT

- Type: Relay contact
- Contact capacity: 250Vac 5A
- Contact type: NC & NO
- Voltage to sensor: DC12V

#### 1.3 INSTALLATION

- Input rated voltage : 110/220Vac, 50/60Hz
- Power consumption : 3VA
- Selection: 110/220Vac switch in the rear plane
- Operating temp.: -5 ~ 60°C
- Operating humidity : 10 ~ 90%RH (Non condensing)

#### 1.4 PERFORMANCE

- Insulation resistance
  - 100MΩ or more with 500Vdc
- Dielectric strength
  - 1500Vac at 1 minute (Input to output to power)
  - 2000Vac at 1 minute (Input or output or power to ground)

### 2. UL SPECIFICATION

- Construction: Plug in
- Mounting: Wall or DIN Rail
- Wiring: M3.5 Screw terminal
- Adjustment: Moisture sensing range 0 ~ 20kΩ

#### 2.1 INPUT

- CH1: Thermal protector sensor ( Bi-metal sensor )
- CH2: Moisture leakage sensor ( Electrode sensor )

#### 2.2 OUTPUT

- Type: Relay contact
- Contact capacity: 120Vac 2A
- Contact type: NC & NO
- Voltage to sensor: DC12V

#### 2.3 INSTALLATION

- Input rated voltage : 110/220Vac, 50/60Hz
- Power consumption : 3VA
- Selection : 110/220Vac switch in the rear plane
- Max. Surrounding air temperature : 40°C
- Operating humidity : 10 ~ 90%RH (Non condensing)
- For use in Pollution Degree2 environment
- All terminals for factory wiring only

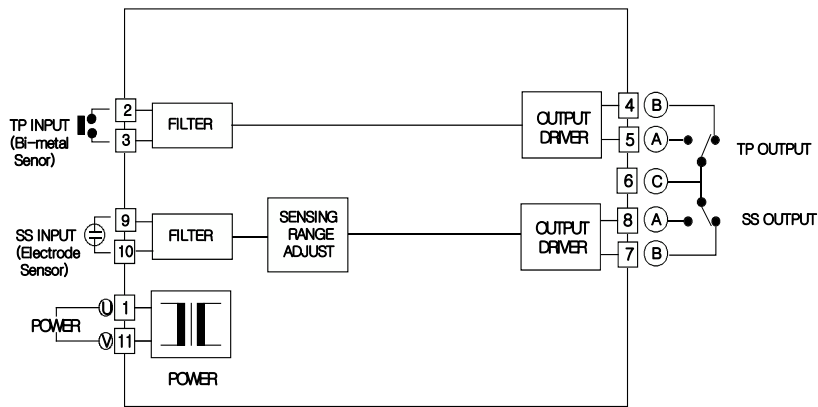
#### 2.4 PERFORMANCE

- Insulation resistance
  - 100MΩ or more with 500Vdc
- Dielectric strength
  - 1500Vac at 1 minute (Input to output to power)
  - 2000Vac at 1 minute (Input or output or power to ground)

### 3. NAME PLATE

SPECIFICATION		CONNECTION	
<b>MODEL</b>	mini-eMAP	<b>2</b>	TP Sensor
<b>TP SENSOR</b>	Bimetal N.C Contact	<b>3</b>	INPUT
<b>SS SENSOR</b>	Electrode	<b>9</b>	SS Sensor
<b>OUTPUT</b>	Relay Contact (120Vac 2A)	<b>4</b>	TP OUT
<b>INPUT</b>	110/220Vac 50/60Hz 3VA	<b>5</b>	COMMON
<b>SERIAL No.</b>		<b>6</b>	SS OUT
		<b>7</b>	POWER(AC)
		<b>8</b>	
		<b>1</b>	U
		<b>11</b>	V

## 4. 11PIN SOCKET CONNECTION DIAGRAM



### 4.1 CONNECTION

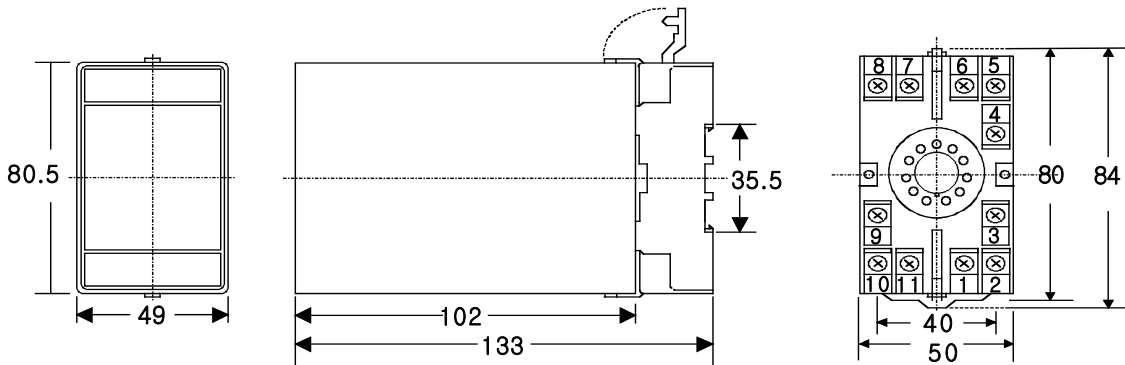
- T1-T2 : input (TP)  
Temperature sensor(Bi-metal)
- T9-T10 : input (SS)  
Moisture leakage sensor(Electrode)
- T1-T11 : 110/220Vac input
- T4 : TP Output B type contact
- T5 : TP Output A type contact
- T6 : Relay contact common
- T7 : SS Output B type contact
- T8 : SS Output A type contact

### 4.2 TERMINAL WIRE SIZE

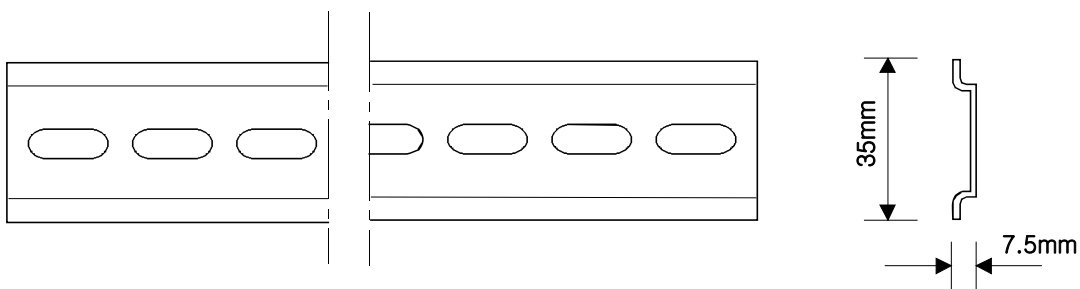
- Terminal No. 2, 3, 9, 10 (sensor input)  
- AWG22 ~ 14
- Terminal No. 1, 11 (AC V Input)  
- AWG 20 ~ 14
- Terminal No. 4, 5, 6, 7, 8 (Output)  
- AWG18 ~ 12

## 5. DIMENSION

### 5.1 Dimension



### 5.2 35mm DIN Rail. Recommended height: 7.5mm



## 6. PRODUCT INFORMATION



### 6.1 Forehead Indicator

- Power : When inputting the rated voltage, the red LED illuminates
- Alarm Winding temp : When the temperature of the bimetal sensor reaches the unique critical point, the contact point converts 'the close' to 'the open' and this signal goes into between the terminal 2 and 3. Simultaneously TP Relay starts working with illuminating the Green LED.
- Alarm Leakage : When the Electrode sensor detects water SS output Relay starts working with illuminating the Green LED.

6.2 The VR is the rheostat that controls the sensitivity of the leakage sensor in the range of 0~20kΩ.



**WARNING : THE VR IS VERY SENSITIVE SO BE CAREFUL THAT THE SENSITIVITY IS NOT SET MUCH HIGH.**

## 7. CAUTION



**IT IS FOR BOTH 110 & 220 VOLTAGE SO PLEASE MAKE SURE THAT THE VOLTAGE SELECTION SWITCH IS SET TO THE CORRECT VOLTAGE. UNLESS THE RATED VOLTAGE IS INPUTTED IT MIGHT MALFUNCTION OR BURN OUT.**



**WANTED TO USE THE POWER OVER THE CAPACITY OF CONTACT POINT IN THE OUTPUT RELAY, PLEASE USE THE AUXILIARY RELAYS.**



**WHEN THE PRODUCT IS NORMALLY INSTALLED ON THE SOCKET, BE SAFELY LOCKED WITH THE LATCHES ON IT.**

