

## AC/DC Current Sensor CYCS-xnM05

The **CYCS-xnM05** AC/DC current sensor/transducer works according to Linear Photoelectrical Isolation and is designed for applications to the measurement and monitoring of AC/DC current and DC impulse current. The output signal of this transducer is tracing voltage or DC voltage, which is proportional to the input AC/DC current. It is suitable for measurements and long-time monitoring of DC, AC and impulse currents.

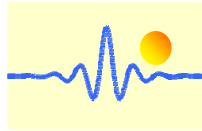
### Specifications

|                                             |                                                                                                                         |                     |                                 |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------|
| Rated input current                         | 1mA, 5mA, 10mA, 50mA, 100mA, 500mA, 1A, 2A, 3A, 4A, 5A<br>(DC calibration, option: AC calibration)                      |                     |                                 |
| Linear measuring range                      | 0 - 1.2 times of rated input current                                                                                    |                     |                                 |
| Overload capacity                           | 2 times of rated input current                                                                                          |                     |                                 |
| Input frequency                             | $\pm$ DC, 20Hz ~ 3kHz                                                                                                   |                     |                                 |
| Input resistance                            | $R_i = 0.2V / I_x$ , $I_x$ : Input current                                                                              |                     |                                 |
| Output signals                              | 0-5V, 0-10V                                                                                                             |                     |                                 |
| Measuring accuracy                          | $\pm 0.2\%$                                                                                                             | Thermal drift       | 200ppm/°C                       |
| Load capacity                               | 5mA                                                                                                                     | Response time       | $\leq 100\mu s$                 |
| Power supply                                | 9-36VDC                                                                                                                 | Static current      | 30mA                            |
| Isolation withstanding voltage              | Input and output: 6kVDC, power supply and output: 3.5kVDC,<br>Input and power supply: 6kVDC, leakage current 1mA, 1 min |                     |                                 |
| Surge (Impulse) Immunity                    | GB/T 17626.5, Signal Ports 2kV, Power Ports 2kV, Performance<br>Criterion B, Recoverable                                |                     |                                 |
| Electrostatic Discharge<br>Immunity         | GB/T 17626.2 Contact Discharge Level 3, $\pm 6kV$ Performance<br>Criterion B, recoverable after disturbance             |                     |                                 |
| Electrical Fast Transient Burst<br>Immunity | GB/T 17626.4, Power Port: 2kV, Signal Port: 2kV, Performance<br>Criterion A.                                            |                     |                                 |
| Operating temperature                       | $-25^{\circ}C \sim +70^{\circ}C$                                                                                        | Storage temperature | $40^{\circ}C \sim +85^{\circ}C$ |
| Relative humidity                           | 10% ~ 90%                                                                                                               | Protection of Case  | IP20                            |
| Mounting                                    | DIN Rail 35mm                                                                                                           | MTBF                | 50000h                          |
| Material of Case                            | ABS (according to UL94V-0)                                                                                              |                     |                                 |
| Case Style                                  | M05 without aperture                                                                                                    |                     |                                 |
| Unit weight                                 | 100g                                                                                                                    |                     |                                 |

### Definition of Part number:

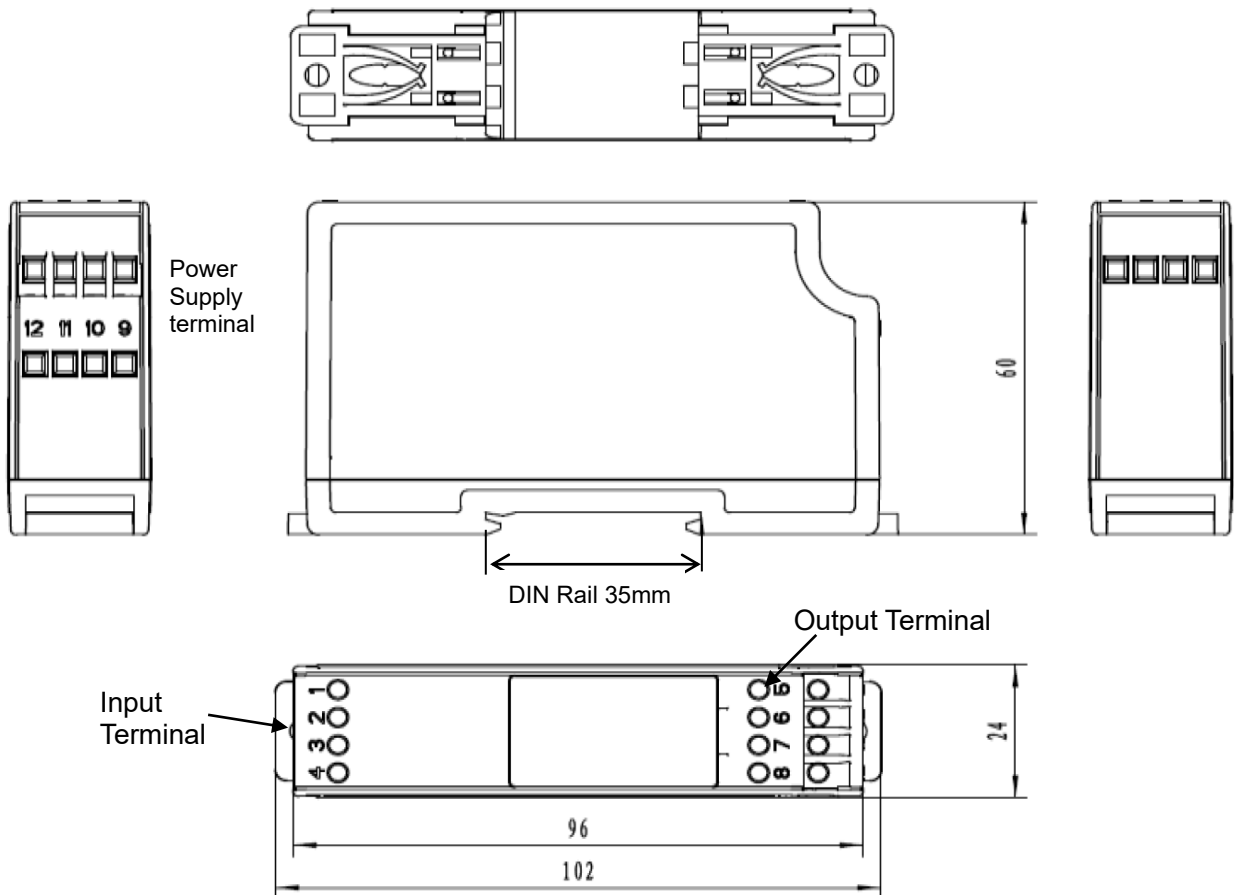
|      |   |     |     |     |   |     |   |     |
|------|---|-----|-----|-----|---|-----|---|-----|
| CYCS | - | x   | n   | M05 | - | 0.2 | - | m   |
| (1)  |   | (2) | (3) | (4) |   | (5) |   | (6) |

| (1)         | (2)                                   | (3)                  | (4)        | (5)            | (6)                                                          |
|-------------|---------------------------------------|----------------------|------------|----------------|--------------------------------------------------------------|
| Series name | Output signal                         | Power supply         | Case style | Accuracy class | Input current range (m)                                      |
| CYCS        | <b>x=3:</b> 0-5V<br><b>x=8:</b> 0-10V | <b>n=4:</b> 9~36V DC | M05        | $\pm 0.2\%$    | 1mA, 5mA, 10mA,<br>50mA, 100mA, 500mA,<br>1A, 2A, 3A, 4A, 5A |

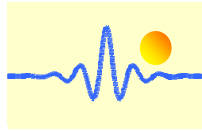


**Example 1:** CYCS-34M05-0.2-100mA, AC/DC Current sensor with  
Output signal: 0-5V AC/DC  
Power supply: 9~36V DC  
Rated input current: 0~100mA AC/DC

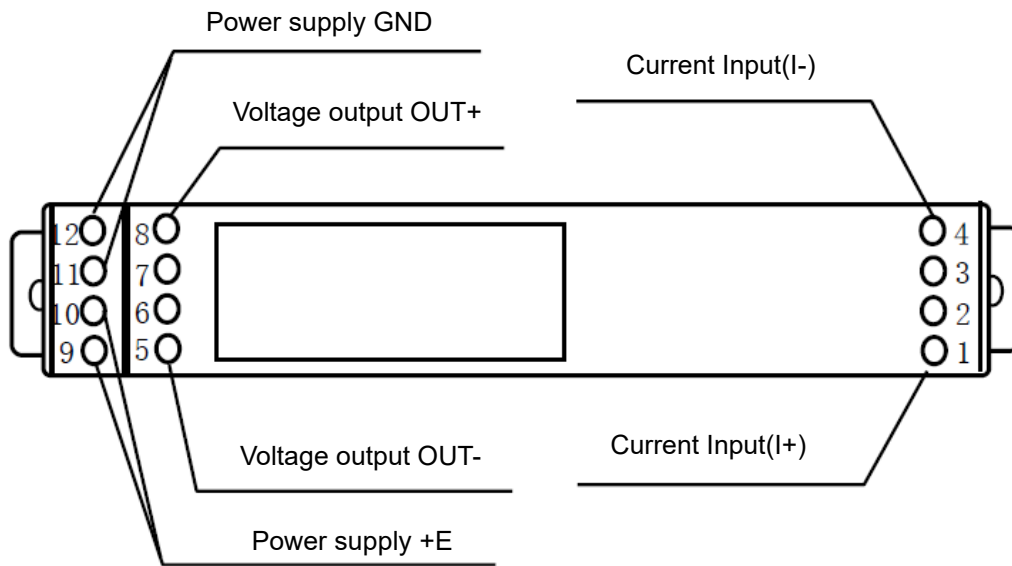
## DIMENSIONS (mm)



Dimensions: 102mm x 24mm x 60mm

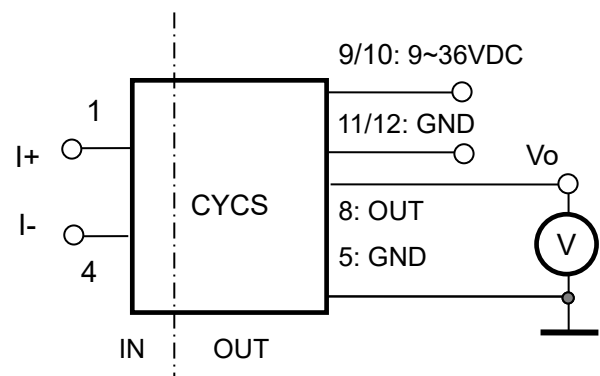
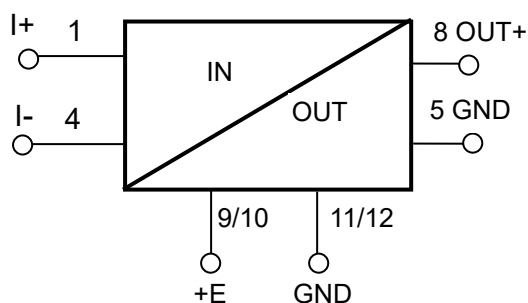


## Terminal arrangement



Please don't use the undefined terminals

## CONNECTION:



1, 4: Input current; 9/10: +9~36VDC Power Supply (11/12: GND), 5: GND 8: Voltage output

Relation between Input and Output:

| Sensor CYCS-34M05-0.2-100mA |                    |
|-----------------------------|--------------------|
| Input Current (mA)          | Output voltage (V) |
| 0                           | 0                  |
| 25                          | 1.25               |
| 50                          | 2.5                |
| 75                          | 3.75               |
| 100                         | 5                  |