

### Tehničke specifikacije

|  |   |
|--|---|
| Specification                                | EM231, 2 AI×16BIT   |
| Physical Features                            |   |
| Dimensions(W×H×D)                            | 71.2×80×62mm  |
| Power Loss(dissipation)                      | 3.5W  |
| Power Consumption                            |   |
| From +5V(from I/O bus)                       | 20 mA   |
| From L+                                      | 30 mA   |
| L+ voltage range,class 2 or DC sensor supply | 20.4 ~ 28.8V DC   |
| LED indicator                                | 24 VDC Power Supply Good<br>ON = no fault,<br>OFF = no 24 VDC power |
| Power Output Feature                         |   |
| Rated voltage output                         | 10V DC  |
| Rated current output                         | 10mA  |
| Overload protection                          | Yes   |
| Analog Input Feature                         |   |
| Number of analog input points                | 2 points  |
| Isolation(field side to logic circuit)       | Yes   |

|  |   |
|--|---|
| input type   | Differential                                |
| Input Range  | $\pm 10V$ , $\pm 5V$ ,                      |
| Data Range   |   |
| Bipolar,full-scale range   | 0 ~ 32000                                   |
| Unipolar, full-scale range   | -32000~32000                                |
| Input Resolution   |   |
| Voltage(unipolar)  | 0.31mV (0 ~ 10V)<br>0.15V (0~5V)            |
| Voltage(bipolar)   | 0.61mV ( $\pm 10V$ )<br>0.31mV ( $\pm 5V$ ) |
| Analog to digital conversion time                                  | <200 $\mu$ s                                |
| Analog input step response   | <1ms  |
| Common mode rejection  | 85dB , DC to 60Hz                           |
| Maximum input voltage  | 30V   |
| Maximum input current  | 25mA  |
| Inverse polarity protection  | Yes   |
| Permissible differential voltage                                   |   |
| UCM Voltage  | 3V  |
| Maximum differential voltage between input ground and power ground | 75V DC                                      |
| Current input  | 0~20mA                                      |
| Input resolution   | 15 bits plus sign                           |
| ADC resolution   | 16BIT                                       |

|                  |               |
|------------------|---------------|
| Maximum accuracy | $\pm 0.1\%$   |
| Linear accuracy  | $\pm 0.05 \%$ |

### Configuration

Table 1 shows how to configure the module using the configuration DIP switches , Switches 1, 2, and 3 select the analog input range. All inputs are set to the same analog input range. In this table, ON is closed, and OFF is open. (SW4 to SW5 should be set to the OFF position).

Table 1 Configuration Switch Table to select Analog Input Range.

| SW1 | SW2 | SW3 | Full-Scale Input   | Resolution |
|-----|-----|-----|--------------------|------------|
| OFF | OFF | ON  | $\pm 10 \text{ V}$ | 312.5uV    |
|     | ON  | OFF | $\pm 5 \text{ V}$  | 156.25uV   |

### Filter characteristics

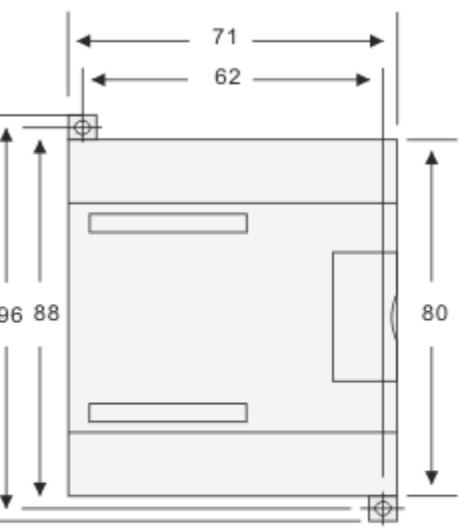
Table 2 shows how to configure the module using the configuration DIP switches , Switches 6 select the analog input Filter characteristics.

Table 2 Configuration Switch Table to select Analog Input Filter characteristics.

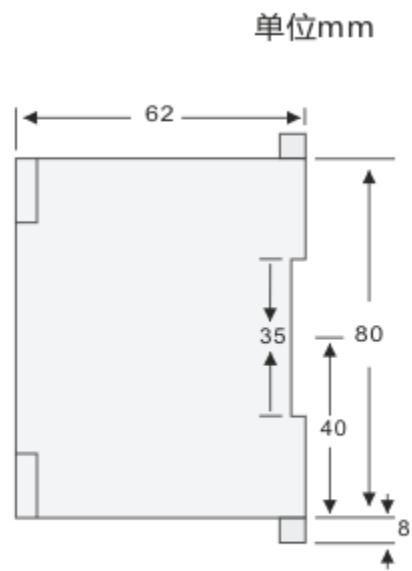
| Switch | characteristic    | <u>step response</u> time |
|--------|-------------------|---------------------------|
| SW6    | OFF : filtering   | OFF : 2 mS                |
|        | ON : N0 filtering | ON : 1 mS                 |

### Input Data Word Format

## Dimenzijs



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