

**“Smart Output Module”  
System RS-232/485 Modbus  
RTU Serial Communication  
Process Indicator**



ESM-4400 ESM-7700  
ESM-4900 ESM-9900



- 4 digits Process (PV) Display
- Universal Process Input (TC, RTD, mVdc, Vdc, mAdc)
- Dual or Multi Point Calibration for dc Voltage / Current Input
- RS-232 (standard) or RS-485 (optional) Serial Communication with Modbus RTU Protocol
- Smart Output Module System
- Programmable Alarm Functions
- Retransmission of Process Value or Process Control by using 0/4...20 mAdc Current Output Module

**Specifications**

**Input**

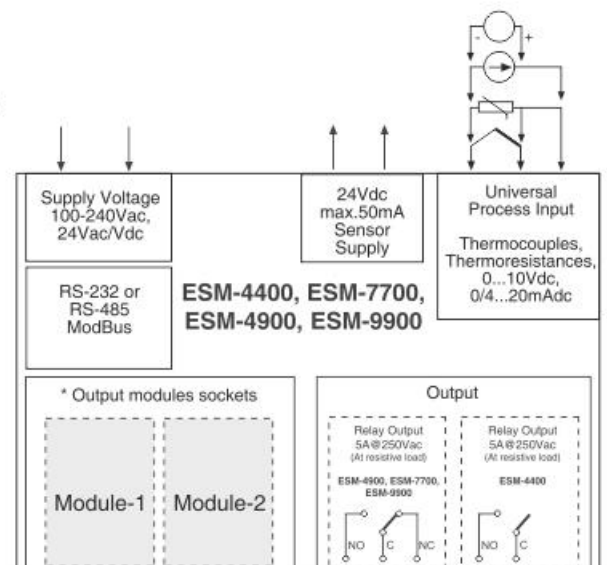
Universal Input: TC, RTD, dcVoltage/Current  
Thermocouple (TC): L(DIN 43710), J, K, R, S, T, B, E and N (IEC584.1)(ITS90), C (ITS90)  
Thermoresistance (RTD): PT-100 (IEC751)(ITS90)

**Measurement Range**

Accuracy:  $\pm 0.25\%$  of full scale for thermocouple, thermoresistance, mV and V,  $\pm 0.70\%$  of full scale for mA  
Cold Junction Compensation: Automatically  $\pm 0.1^\circ\text{C}/1^\circ\text{C}$   
Line Compensation: Maximum 10 Ohm  
Sensor Break Protection: Upscale  
Sampling Cycle: 3 samples per second  
Input Filter: 0.0 to 900.0 seconds

**Dimensions**

ESM-4400, 48x48mm, Depth: 116mm  
ESM-7700, 72x72mm, Depth: 87,5mm  
ESM-9900, 96x96mm, Depth: 87,5mm  
ESM-4900, 96x48mm, Depth: 86,5mm



\* Output modules can be mounted each modules sockets.

**Output**

Standard Relay Output: 5A @ 250Vac  
SSR Output Module (Max.20mA @ 18Vdc)  
Digital(Transistor) Output Module(Max.40mA @ 18Vdc)  
0/4...20 mAdc Current Output Module

**Supply Voltage**

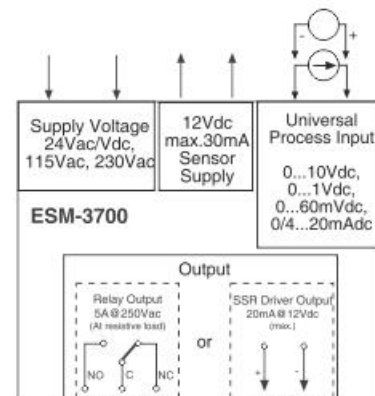
100-240Vac 50/60 Hz (-15%;+10%) -6VA Universal  
24Vac 50/60 Hz (-15% ; +10%) -6VA Optional  
24Vdc (-15% ; +10%) -6W Optional  
(Must be determined in order)

Single SET Process Indicator

ESM-3700



- 4 digits display
- Easily adjustable from front panel
- Configurable display scale between -1999 and 9999
- Adjustable decimal point
- Selectable universal process Input (0-10 Vdc, 0-1 Vdc, 0-60 mVdc, 0-20 mAdc, 4-20 mAdc)
- Adjustable input filter
- Maximum and minimum measurement value are registered to the devices memory
- Maximum or minimum measurement value can be shown continuously on the display
- User can be adjust device's reading value for selected input type
- Alarm output, Relay or SSR driver output (It must be determined in order.)
- Adjustable alarm set value from front panel
- Programming mode password protection



Specifications

**Input**

Vdc, mAdc

**Output**

Relay (5@250Vac at resistive load) or  
SSR Output Module (Max.20mA @12Vdc)

**Measurement Range**

Accuracy:  $\pm 0.5\%$  of scale  
Sensor Break Protection: Upscale  
Sampling Cycle: 3 samples per second

**Environmental Rating and Physical Specification**

Operating Temperature: 0...50 C  
Humidity: 0-90%RH (none condensing)  
Protection Class: IP65 at front, IP20 at rear  
Dimensions: ESM-3700 77x35mm, Depth: :62.5 mm

**Dimensions**

ESM-3700, 77x35mm, Depth: 62,5mm

**Supply Voltage**

230Vac ( $\pm 15\%$ ) 50/60 Hz -1.5VA  
115Vac ( $\pm 15\%$ ) 50/60 Hz -1.5VA  
24Vac ( $\pm 15\%$ ) 50/60 Hz -1.5VA