

# ANALOG INPUT MODULE

## WITH CHANNEL-TO-CHANNEL ISOLATION



- 4 isolated universal analog inputs
- Channel-to-channel isolation of 300 V AC
- 8 thermocouples, Pt100, 0~1V, 0~2V, 0~5V, 0~10V, 0~20 mA, 4~20 mA, digital input
- Isolated RS485/MODBUS RTU, upto 57600 Baud
- 85~265 VAC or 15~60 V DC supply
- 3 key, 3 level programming
- Powerful, flexible SCADA software available
- 4~20 mA output option for any one channel
- Tmax version with 4~20 mA for highest PV (from all channels)

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### SPECIFICATIONS

All specifications at ambient of 25 °c, unless specified otherwise

<b>INPUTS</b> Maximum no. of channels 4 Input types Thermocouple B, E, J, K, N, R, S, T RTD Pt100, 3-wire Linear input 0~1V, 0~2V, 0~5V, 0~10V, 0~20 mA, 4~20 mA (each input independently scaleable and without any DIP reconfiguration) Digital input Potential free Channel scan rate < 0.4 seconds for 4 channels Input protection Thermocouple, V, RTD inputs $\pm 10$ V DC max Current inputs Current limit < 30 mA, 28 V DC max Range limits See Table 1 Accuracy See Table 1 Cold junction compensation Automatic Sensor break protection User programmable	
<b>ANALOG OUTPUT</b> Current 0~20 mA, 4~20 mA, 20~0 mA, 20~4 mA Load for current output 0~500 $\Omega$ Voltage 0~2 VDC, 0~5 VDC, 0~10 VDC / user specified Load for voltage output > 10 kohms	
<b>ISOLATION</b> Input Channel-to-channel isolation a) 300 V AC max b) 400 V DC max Mutual isolation between Inputs, Supply, RS485, Current Output 1500 V AC RMS, 50 hz / 1 minute	
<b>ADJUSTMENTS</b> Unit User selectable Resolution User selectable 0.0001, 0.001, 0.01, 0.1 or 1 for linear input, 0.1 or 1 for temperature	
<b>OTHER MAJOR PARAMETERS</b> Password Level lock Display scan rate 1~99 seconds/channel SKIP channel Enable/disable Input bias -99.9 ~ 99.9	
<b>COMMUNICATION</b> Port RS485, isolated Protocol MODBUS RTU Baud rate 4800/9600/19200/38400/57600 bps Slave ID User programmable, 1~247 Minimum polling interval 250 milliseconds Data types Float, swapped float, integer, integer x10	
<b>CALIBRATION</b> Zero & span Through front panel keys & display User calibration Sensor span and sensor zero CJC calibration Room temperature	
<b>INDICATION</b> Display type 2x16 character LCD display	
<b>OTHER</b> Keypad Tactile, 3 keys Memory for programmed parameters Non-volatile, indefinite duration Supply voltage a) 85~265 V AC, 50/60 hz b) 15~60 V DC Power consumption 3 watts	
<b>TEMPERATURE, HUMIDITY</b> Ambient, storage -22~+85°C Ambient, operation 0~50°C Relative humidity 0~95%	
<b>ENCLOSURE</b> Material ABS plastic Dimensions (in mm) 100(W) x 75(H) x 110(D) Protection IP20 Mounting Snap on for 35mm DIN rail to DIN 46277	

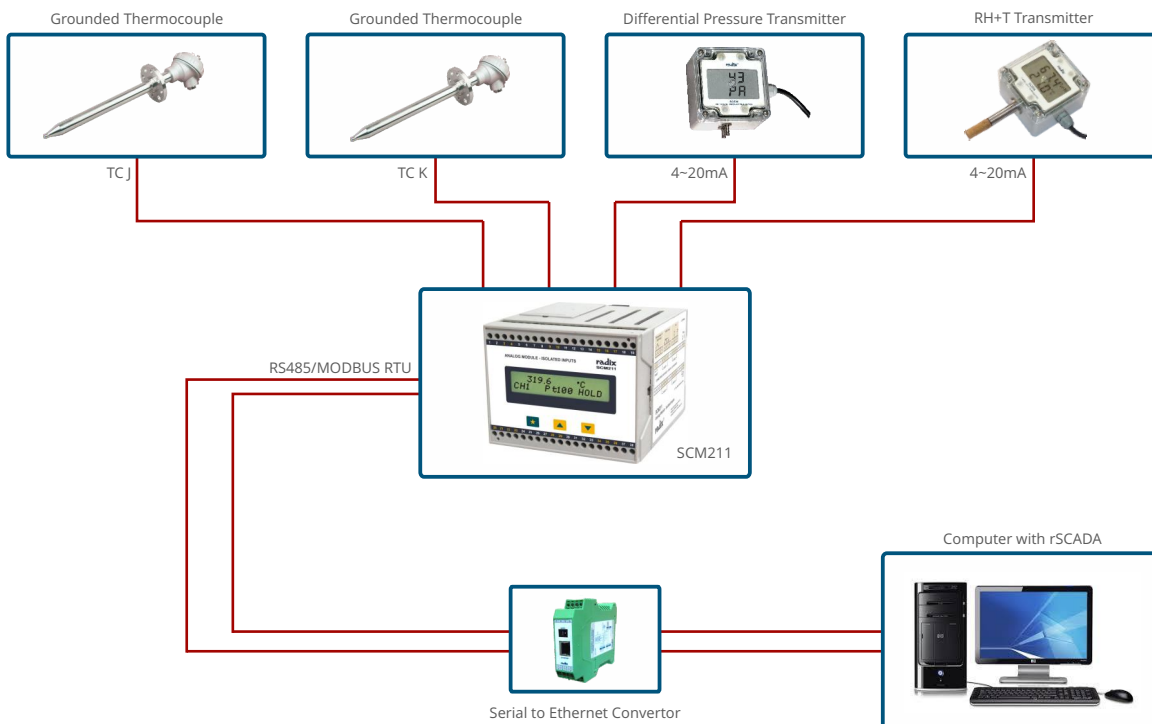
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## T<sub>MAX</sub> VERSION OF SCM211

SCM211 is also available in a version which works as below :

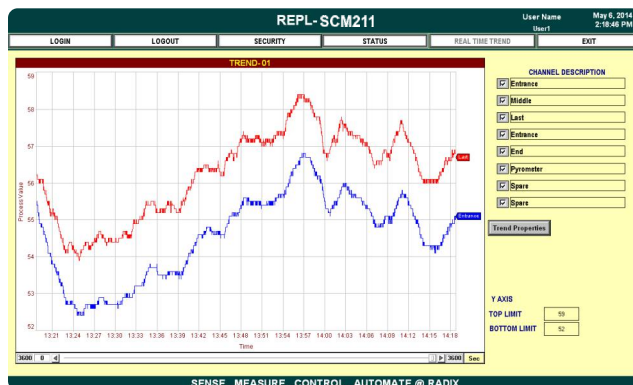
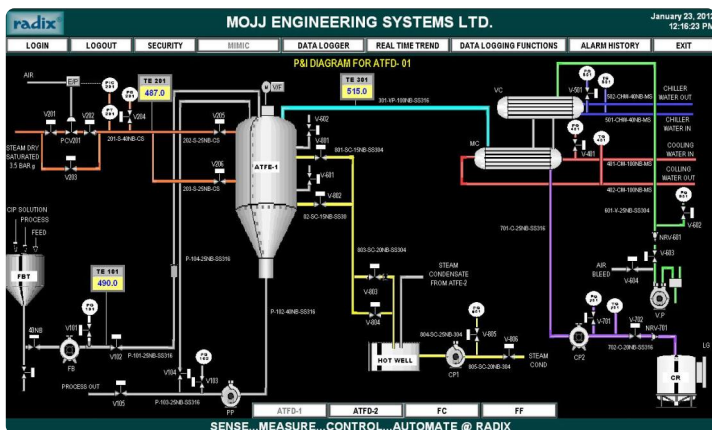
- 4 channels have temperature sensors (or other inputs) connected
- 4 to 20 mA isolated output corresponds to the highest of the four channel temperatures (or other process values)

## APPLICATION



# ANALOG INPUT MODULE WITH CHANNEL-TO-CHANNEL ISOLATION

## SCADA SCREENS



RADIX ELECTROSYSTEMS PVT LTD - SCM211

CHANNEL NO.	CHANNEL DESCRIPTION	PROCESS VALUE	UNIT	HIGH ALARM SETPOINT	LOW ALARM SETPOINT	HIGH ALARM	LOW ALARM
CH01	Codex Cooling tower basin temp.	25.0	C	50.0	15.0	<input type="checkbox"/>	<input type="checkbox"/>
CH02	Codex cooling return water temp.	23.0	C	50.0	15.0	<input type="checkbox"/>	<input type="checkbox"/>
CH03	Bioceel cooling tower basin temp.	24.0	C	35.0	15.0	<input type="checkbox"/>	<input type="checkbox"/>
CH04	Bioceel cooling return water temp.	24.0	C	50.0	15.0	<input type="checkbox"/>	<input type="checkbox"/>
CH05	Dembcx chilling supply water temp.	24.0	C	50.0	10.0	<input type="checkbox"/>	<input type="checkbox"/>
CH06	Dembcx chilling supply water temp.	24.0	C	50.0	10.0	<input type="checkbox"/>	<input type="checkbox"/>
CH07	Codex chilling supply water temp.	25.0	C	50.0	10.0	<input type="checkbox"/>	<input type="checkbox"/>
CH08	Codex chilling return water temp.	25.0	C	50.0	10.0	<input type="checkbox"/>	<input type="checkbox"/>

SENSE...MEASURE...CONTROL...AUTOMATE @ RADIX

## ORDERING INFORMATION

### Standard Options

SCM211, standard version, will be supplied with the following specifications :

Example	2477	01	01	2477 01 01
Product code	2477			
Version		01		Standard
		02		Tmax
Supply voltage			01	85~265 VAC
			02	15~60 VDC

### Non-standard Options

The following ordering options are available on request. Minimum order quantity and/or minimum order value may apply.

Option	Details
1. All channels with a given input type	Specify input type
2. Analog output	a) Specify channel to which assigned b) Specify 4~20 mA, 0~10 VDC, etc

### ENQUIRIES

**Instruments:** sales@radix.co.in  
**Sensors:** sensors@radix.co.in  
**Gauges:** gauges@radix.co.in  
**Automation:** automation@radix.co.in  
**Level:** level@radix.co.in

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