SCC311

SIGNAL ISOLATOR
PROGRAMMABLE

- Universal input, programmable ranges, etc.
- 1 / 2 x 4~20 mA (or voltage) outputs
- Input/supply/outputs mutually isolated
- Supply : 85~265 V AC/DC or 20~30 V DC
- Calibration & Configuration through PC
- 4 digit 7 segment LED display
- RS485/MODBUS RTU option

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SPECIFICATIONS

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

INPUT

Input group1	
Thermocouple	B, E, J, K, N, R, S, T
RTD, 3-wire	Pt50, Pt100, Pt500, Pt1000
Linear voltage	0~50 mV, 0~10 mV, 0~100 mV, 0~200 mV, 0~1 V, 0~2 V, 0~5 V, 0~10 V
Linear current input	4~20 mA, 0~20 mA
Input group2	
RTD 3-wire	Pt50, Pt100, Pt500, Pt1000 Ni100, Ni500, Ni1000 Cu50, Cu53, Cu100
Linear resistance	0~400Ω, 0~2000Ω, 0~10000Ω
Other inputs	Contact sales
Transmitter supply	22 V DC, nominal, 30 mA max
Input type selection	Through front panel keys (no DIP switch)
Display range limits	See Table 1

MONITORING

Sensor break protection	Upscale/Downscale (user programmable)

ACCURACY

Linearity & calibration	See Table 1
Cold junction compensation	Automatic (for thermocouples)
Temperature effect on accuracy	± 0.02% of span per °C
Supply voltage effect	± 0.002% of span / V
Supply ripple effect, 50/60 hz, 5 Vp - p	± 0.01% of span

CALIBRATION

ZERO and SPAN through PC using USB-to-serial converter DCC501

ANALOG OUTPUTS

No. of outputs	1 or 2
Output type	
Standard	
Current	0~20 mA, 4~20 mA, 20~0 mA, 20~4 mA
Load for current output	0~500W
Voltage	0~2 V DC, 0~5 V DC, 0~10 V DC / user specified
Load for voltage output	> 10 kohms
Non - standard	Please specify Note : For EACH output, one of the Std or Non-standard outputs MUST be specified

COMMUNICATION PORT

Port	RS485
Protocol	Modbus RTU
Slave ID	User programmable (1~255)
Baud rate	9600

ISOLATION

Mutual isolation between input, supply, output1 & output2	a) 1000 V AC RMS, 50 hz / 1 minute b) 250 V AC RMS, 50 hz, continuous

POWER SUPPLY

Supply voltage	85~265 V AC, 50/60 hz OR 20~30 V DC

ENCLOSURE

Material	ABS plastic
Dimensions	55(W) x 75(H) x 110(D) mm
Mounting	Snap on for 35 mm DIN rail to DIN 46277
Connection, single/ stranded wires	2.5 mm^2, AWG 14
Protection	IP20

TEMPERATURE, HUMIDITY

Ambient, storage	-22 ~ +85 °C
Ambient, operation	0 ~ 50 °C
Relative humidity	0 ~ 95%

OTHER

Programming	With 3 keys & built-in display
Keypad	Tactile, 3 keys
Display	4 digit, 7 segment 0.3" (7.62 mm) red LED display

PROGRAMMABLE PARAMETER

Input type	See 'Input type'
Input Hi	For all inputs
Input Lo	For all inputs
Unit	°C, °F, °K, EU, none
Resolution	TC, RTD - 1, 0.1 Linear - 1, 0.1, 0.01, 0.001
Sensor break	Upscale, Downscale for each output
Preset out	Sensor break output value Downscale : 3.5 ~ 4 mA Upscale : 20 ~ 22 mA
Digital filter	Provided

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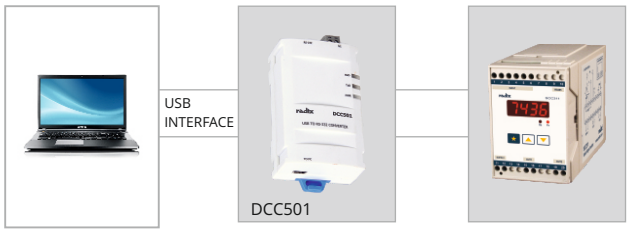
TABLE 1

SENSOR / INPUT	RANGE LIMITS (°C / EU)		RANGE IN WHICH ACCURACY IS SPECIFIED		TYPICAL ACCURACY AT 30 °C (°C / EU)	WORST CASE ACCURACY (°C / EU)
	LOW SCALE	HIGH SCALE	LOW SCALE	HIGH SCALE		
Input Group 1						
Pt - 6% Rh / Pt - 30% Rh (B)	400	1820	400	1820	± 3	± 5
Chromel / Constantan (E)	-200	1000	0	1000	± 1	± 3
Iron / Constantan (J)	-210	760	0	760	± 1	± 3
Chromel / Alumel (K)	-200	1372	-50	1200	± 1	± 3
Nicrosil / Nisil (N)	-200	1300	-50	1200	± 1	± 3
Pt / Pt - 13% Rh (R)	0	1760	400	1760	± 2	± 5
Pt / Pt - 10% Rh (S)	0	1760	400	1760	± 2	± 5
Copper / Constantan (T)	-200	760	-200	400	± 1	± 3
Pt50, Pt100, Pt500, Pt1000, 3-wire	-200	850	-200	600	± 0.3	± 2.0
Linear (0~50 mV, 0~20 mA, 4~20 mA)	-1999	9999	-1999	9999	± 5 EU	± 20 EU
Linear (0~10 mV, 0~100 mV, 0~200 mV, 0~1 V, 0~2 V, 0~5 V, 0~10 V)	-1999	9999	-1999	9999	± 5 EU	± 20 EU
Input Group 2						
Pt50, Pt100, Pt500, Pt1000, 3-wire	-200	850	-200	600	± 0.3	± 0.2
Ni100, Ni500	-60	180	-60	180	± 0.3	± 0.2
Ni1000	-60	150	-60	150	± 0.3	± 0.2
Cu53	0	180	0	180	± 0.3	± 0.5
Cu50, Cu100	-50	150	-50	150	± 0.3	± 0.5
Linear Resistance (0~400E, 0~2000E, 0~10000E)	-1999	9999	-1999	9999	± 5 EU	± 20 EU
Linear (4~20 mA) with square root	0	1000	0	1000	± 10 EU	± 40 EU

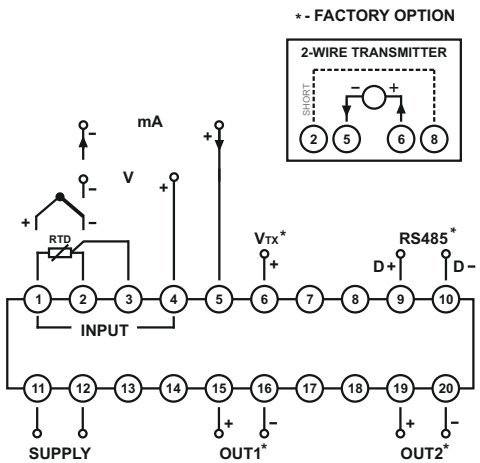
PC CONFIGURATOR FOR SCC311

DCC501 USB-to-Serial Converter can be used to program the parameters. DCC501 must be purchased separately.



CONNECTIONS

FIG 2



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SCC311

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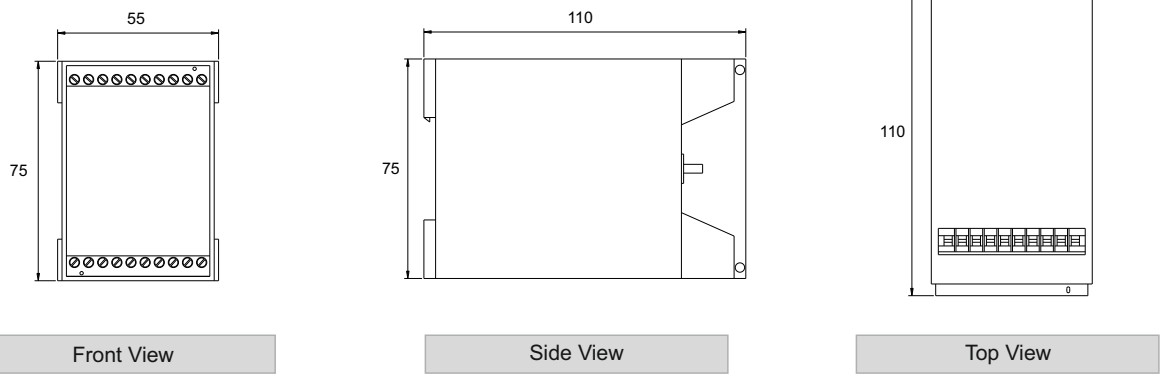
DIMENSIONS mm

FIG 1



Front View | Side View | Top View

ORDERING INFORMATION

Example	2394	0	0	1	1	0	
Product code	2394						
Supply voltage		0					20~30 V DC
		1					85~265 V AC
Input			0				Universal
			1				Special Input
Output 1				0			0~20 mA
				1			4~20 mA
				2			20~4 mA
				3			0~10 V DC
				4			0~5 V DC
				5			0~2 V DC
				6			0~1 V Dc
Output 2					0		0~20 mA
					1		4~20 mA
					2		20~4 mA
					3		0~10 V DC
					4		0~5 V DC
					5		0~2 V DC
					6		0~1 V Dc
					7		None
RS485						0	Present
						1	Absent

For any other Input, Outputs or Supply Voltage, inquire with us.

EXAMPLE

2394 0 0 1 1 0

- RS485 : Yes
- Output 2 : 4~20 mA
- Output 1 : 4~20 mA
- Input : Universal
- Supply voltage : 20~30 V DC

PC Configurators

Parameter	Model	Order Code
USB-to-Serial Converter	DCC501	2555 0

Note

If range is not specified by user, the instrument will be supplied calibrated as per the quoted/ordered Order Code.

If this range is not suitable, or if customer wishes to change it, he will require the USB-to-Serial Converter DCC501. This is to be ordered separately.

CAT#424R2/A

ENQUIRIES

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Automation: automation@radix.co.in
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