

SIGNAL ISOLATORS

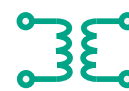
SCC331



Temperature / Linear Input



Single Output



1500V AC Isolation



Din Rail Mount



Input Selection
Fixed

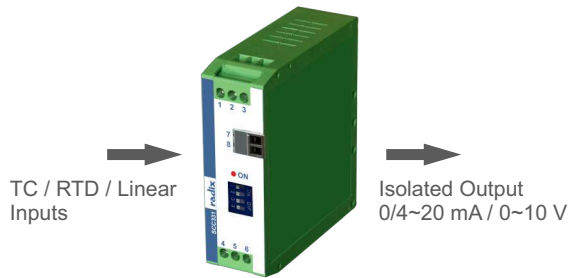


Supply : 18~42V DC or
85~265V AC

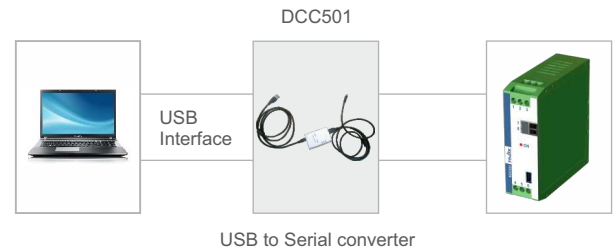


22V DC Transmitter
Supply

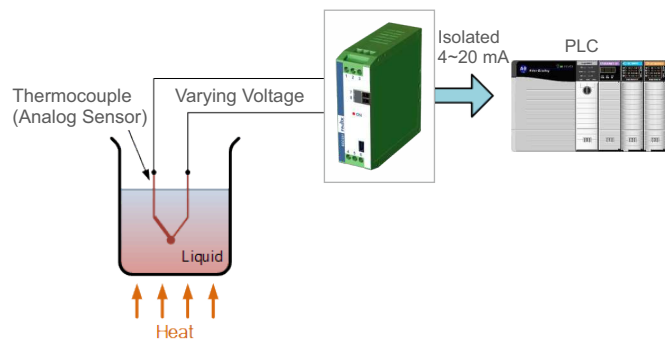
INPUT TO OUTPUT ISOLATION



CALIBRATION / CONFIGURATION THROUGH USB

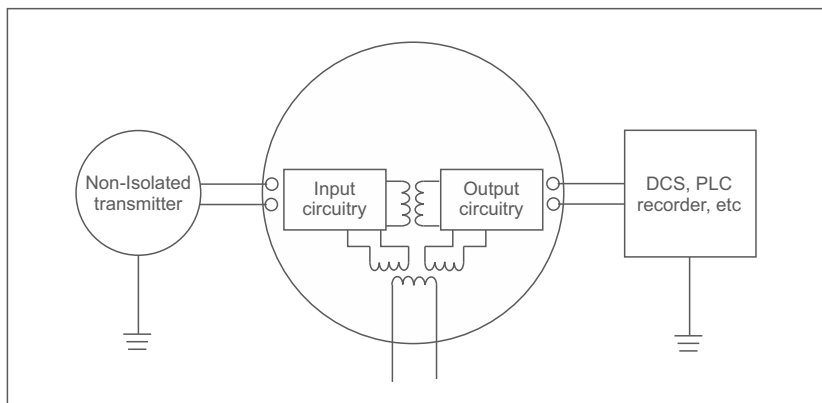


AS A SIGNAL CONDITIONER



APPLICATION

Signal isolator SCC331 is used to eliminate problem of ground loops by breaking the galvanic path in a electric circuit. Especially used with PLC which has many connections referenced to ground. It provides three way 1.5 KV isolation between input-to-output, input-to-supply, supply-output.



SPECIFICATIONS

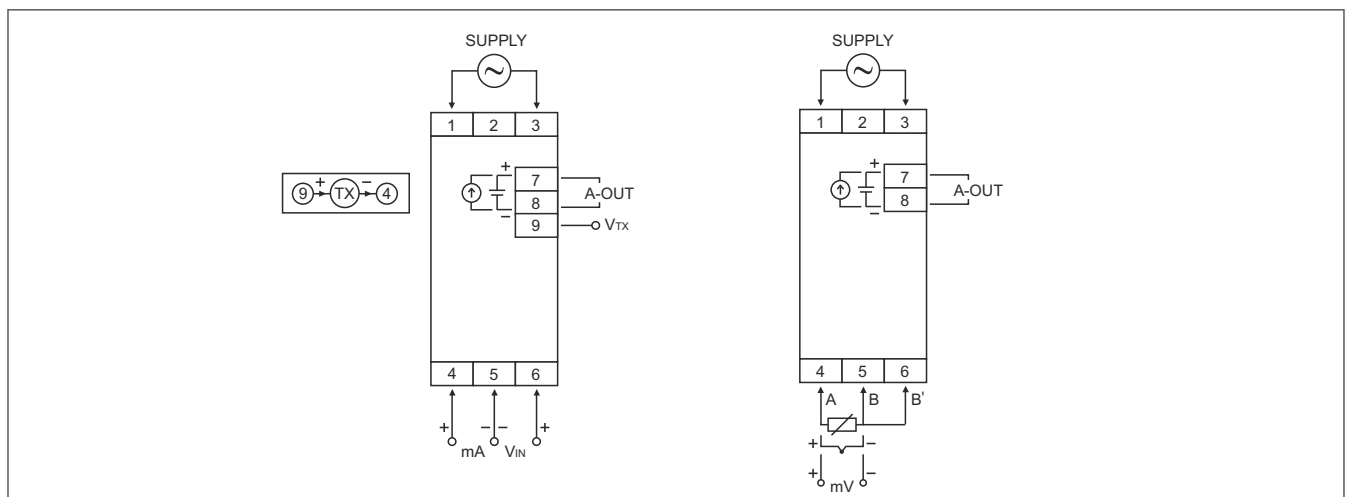
All specifications at ambient of 25 °C, unless specified otherwise

INPUTS	
Input type	Thermocouple : J, K, R, S, T RTD, 3-wire : Pt100 Linear voltage : 0~5 V, 1~5 V, 0~10 V, 2~10 V Linear current : 4~20 mA, 0~20 mA
Transmitter supply	22V DC, nominal, 30 mA max
ADC resolution	12 bit
ADC conversion time	200 ms
ACCURACY	
Input accuracy	Thermocouple : $\pm 0.25\%$ of FS $\pm 1^\circ\text{C}$ Pt100 : $\pm 0.05\%$ of FS $\pm 1^\circ\text{C}$ Linear inputs : $\pm 0.1\%$ FS or less
Input type and ranges	See Table 1
Output accuracy	Input / output transfer $\pm 0.2\%$ span hysteresis (includes repeatability, accuracy & non linearity)
Cold junction compensation	Automatic
Temperature effect ON accuracy	$\pm 0.025\%$ of span per $^\circ\text{C}$
Supply voltage effect	$\pm 0.002\%$ of span / V
Supply ripple effect, 50/60 hz, 5 Vp - p	$\pm 0.01\%$ of span
CONFIGURATION & CALIBRATION	
	Through PC using DCC501 USB-to-Serial converter
RESPONSE TIME	
Output response time	< 1 S
ANALOG OUTPUTS	
Output type	Standard Current : 0~20 mA, 4~20 mA, 20~4 mA Load for current output : 0~500 Ω Voltage : 0~1V DC, 0~2V DC, 0~5V DC, 0~10V DC / user specified Load for voltage output : >10K
	Non - standard User to specify
Sensor burnout output value	Current outputs (4~20 mA, etc) : > 20 mA Voltage outputs (0~10 V, etc) : > 10 V
ISOLATION	
Mutual isolation between input, supply, output	a) 1500V AC RMS, 50 Hz / 1 minute b) 250V AC RMS, 50 Hz, continuous
POWER SUPPLY	
Supply voltage	a) 18~42V DC b) 85~265V AC
ENCLOSURE	
Material	ABS plastic
Dimensions	80(H) x 25(W) x 85(D) mm See Fig 1
Mounting	Snap ON for 35 mm DIN rail to DIN 46277
Connection, single / stranded	$\geq 2.5 \text{ mm}^2$, AWG 14 wires
Weight	Approx. 200 grams
Protection	IP20
TEMPERATURE, HUMIDITY	
Ambient operating temperature	-10 to 50 $^\circ\text{C}$
Ambient operating humidity	Below 90% RH, non-condensing

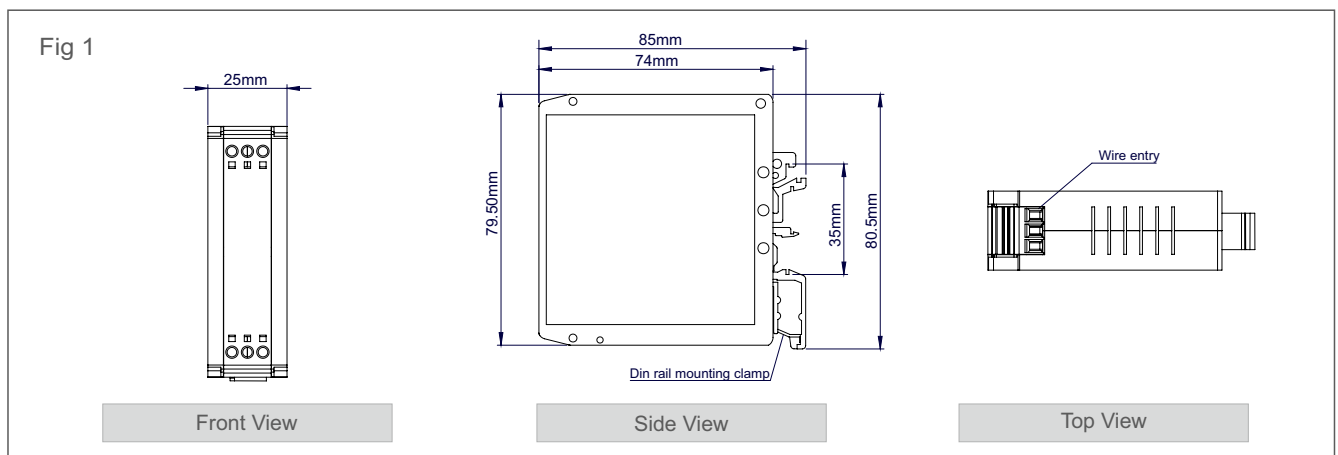
TABLE 1

SENSOR / INPUT	RANGE LIMITS (°C / EU)	
	LOW SCALE	HIGH SCALE
Iron / Constantan (J)	0	760
Chromel / Alumel (K)	0	1200
Pt / Pt - 13% Rh (R)	0	1700
Pt / Pt - 10% Rh (S)	0	1700
Copper / Constantan (T)	0	400
Pt100, 3-wire	-50	600
Linear (4~20 mA, 0~10 V)	0	9999

CONNECTION DIAGRAMS



DIMENSIONS mm



FEATURES SUMMARY

- Input : Temperature - Pt100, TC J, K, R, S, T
Linear - 0~20 mA, 4~20 mA, 0~5V, 1~5V, 0~10V, 2~10V
- 0/4~20 mA or 0~1/2/5/10V DC output
- Isolation 1500V AC
- Supply : 18~42V DC or 85~265V AC

ORDERING INFORMATION

SCC331 : FIXED INPUT

CODE	SPECIFICATIONS	1	2	3	4
2984					
1	Input type				
	J	1			
	K	2			
	R	3			
	S	4			
	T	5			
	Pt100	6			
	0~20 mA	7			
	4~20 mA	8			
	20~0 mA	9			
	20~4 mA	10			
	1~5 mA	11			
	0~10 V	12			
	2~10 V	13			
	0~5 V	14			
	1~5 V	15			
	10~0 V	16			
Special*	17				
2	Output				
	0~20 mA		A		
	4~20 mA		B		
	20~4 mA		C		
	0~1 V		D		
	0~2 V		E		
	0~5 V		F		
	0~10 V		G		
	Special**		H		
3	Burn Option				
	Low			1	
High			2		
4	Power Supply				
	85~265V AC				1
18~42V DC				2	

Range for temperature to be specified after order code

CODE -1-2-3-4

Order Code Format : 2984-X-X-X-X

Example

FOR TCK input, 0~1200 °C, 4~20 mA output, output high during sensor break, SMPS
2984-2-B-2-1-0~1200

TCR's will be available on request with additional charge. Conformance certificate will be provided

PREFERRED ORDER CODES

SCC331 : FIXED INPUT

Order code	Input type	Range	Output type	Supply
2984-6-B-2-2-0~100	RTD	0~100	4~20 mA	24V DC
2984-6-G-2-2-0~100	RTD	0~100	0~10V DC	24V DC
2984-2-B-2-2-0~1200	TCK	0~1200	4~20 mA	24V DC
2984-2-G-2-2-0~1200	TCK	0~1200	0~10V DC	24V DC
2984-8-B-2-2	4~20 mA	-	4~20 mA	24V DC
2984-8-G-2-2	4~20 mA	-	0~10V DC	24V DC
2984-12-B-2-2	0~10V DC	-	4~20 mA	24V DC
2984-12-G-2-2	0~10V DC	-	0~10V DC	24V DC
2984-6-B-2-1-0~100	RTD	0~100	4~20 mA	SMPS
2984-6-G-2-1-0~100	RTD	0~100	0~10V DC	SMPS
2984-2-B-2-1-0~1200	TCK	0~1200	4~20 mA	SMPS
2984-2-G-2-1-0~1200	TCK	0~1200	0~10V DC	SMPS
2984-8-B-2-1	4~20 mA	-	4~20 mA	SMPS
2984-8-G-2-1	4~20 mA	-	0~10V DC	SMPS
2984-12-B-2-1	0~10V DC	-	4~20 mA	SMPS
2984-12-G-2-1	0~10V DC	-	0~10V DC	SMPS

ENQUIRIES

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