

SIGNAL ISOLATORS

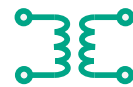
SCC332



Temperature / Linear Input



Dual Output



1500V AC Isolation



Din Rail Mount



Input Selection
Fixed / DIP / USB

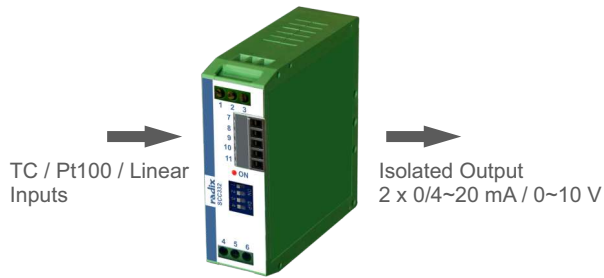


Supply : 18~42V DC or
85~265V AC

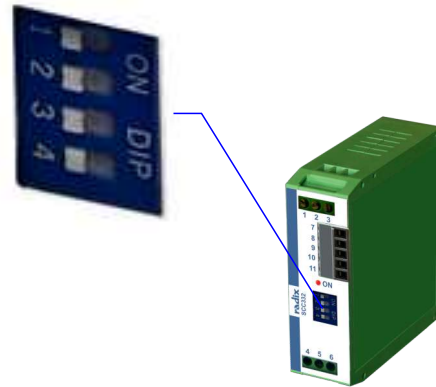


22V DC Transmitter
Supply

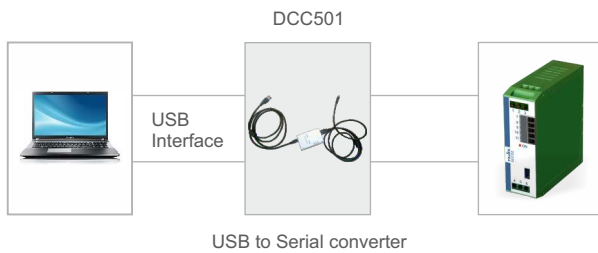
INPUT TO OUTPUT ISOLATION



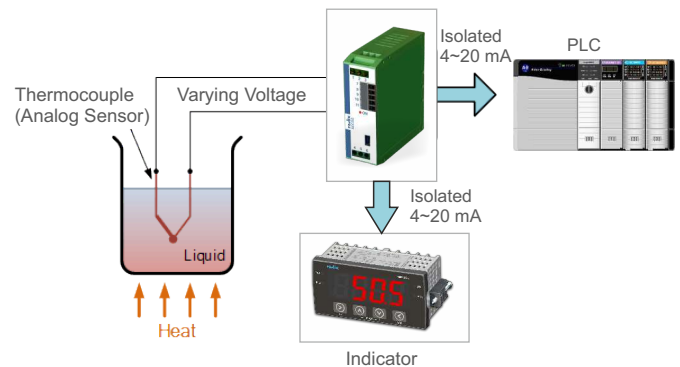
INPUT SELECTION THROUGH DIP



CALIBRATION / CONFIGURATION THROUGH USB

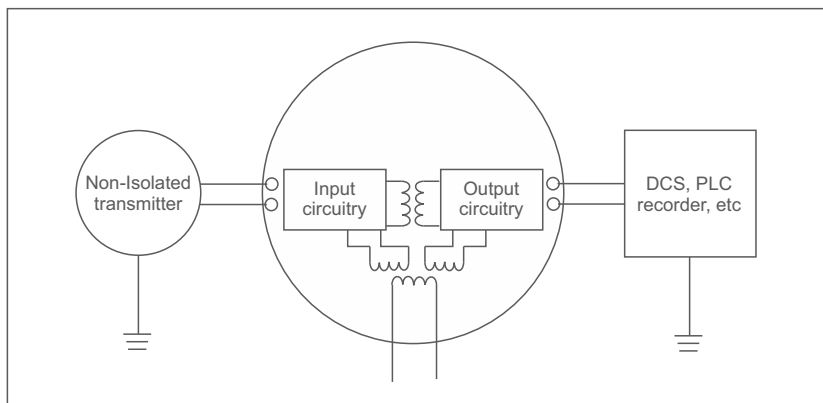


AS A SIGNAL CONDITIONER



APPLICATION

Signal isolator SCC332 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 : B, C, D, E, G, J, K, N, R, S, T, L, U, PLII Pt100 : Pt100, Cu53, JPT100 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
Input type selection	Through PC using DCC501 or through 4 way DIP switch
ADC resolution	24 bit
ADC conversion time	50 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	< 500 ms
ANALOG OUTPUTS	
Number of analog outputs	1 / 2
Output type	Standard Current : 0~20 mA, 4~20 mA, 20~4 mA, 20~0 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

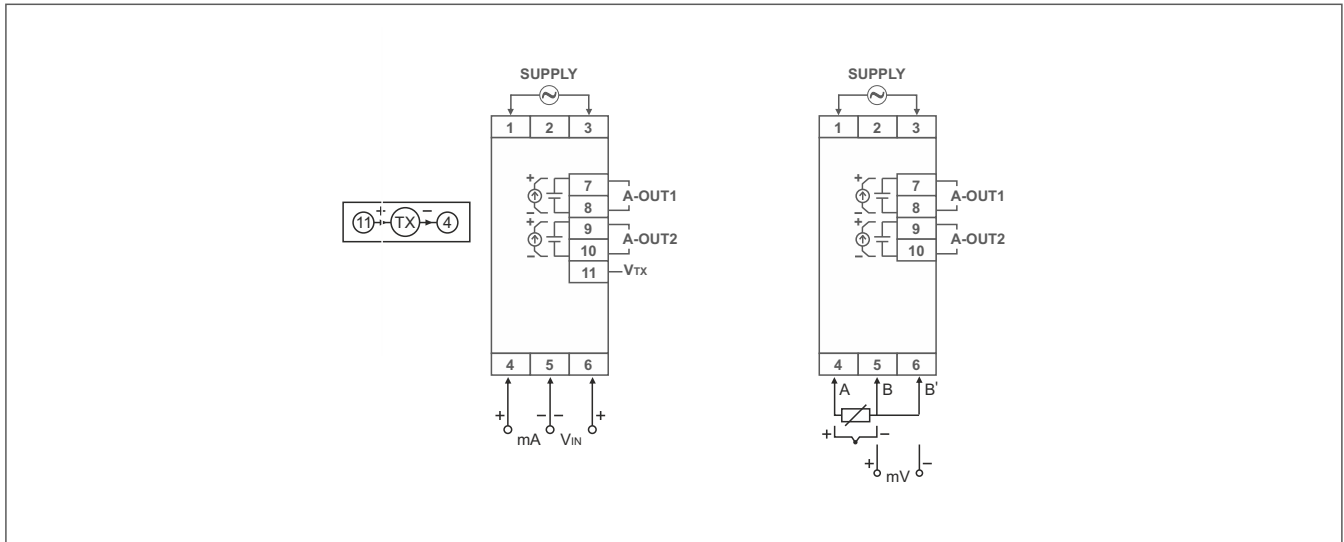
SENSOR / INPUT	RANGE LIMITS (°C / EU)		SENSOR / INPUT	RANGE LIMITS (°C / EU)	
	LOW SCALE	HIGH SCALE		LOW SCALE	HIGH SCALE
Pt - 6% Rh / Pt - 30% Rh (B)	400	1800	Tungsten - 5% Rh / Tungsten - 26% Rh (C)	0	2300
Chromel / Constantan (E)	-200	850	Tungsten - 3% Rh / Tungsten - 25% Rh (D)	0	2000
Iron / Constantan (J)	-200	760	Tungsten / Tungsten - 26% Rh (G)	0	2310
Chromel / Alumel (K)	-200	1370	Iron / Constantan (L)	-200	900
Nicrosil / Nisil (N)	-200	1300	Copper / Constantan (U)	-200	600
Pt / Pt - 13% Rh (R)	0	1700	Platinum - 40% Rh / Platinum - 20% Rh (2040)	0	1880
Pt / Pt - 10% Rh (S)	0	1700	JPT100	-200	600
Copper / Constantan (T)	-200	400	Cu53	0	150
Pt100, 3-wire	-200	850	Linear (-10~20mV, 0~50 mV, 0~200 mV, 0~2 V, 0~5 V, 0~10V)	-1999	9999
Linear (0~50 mV, 4~20 mA, 0~10 V)	-1999	9999	Linear (4~20 mA) with square root	0	9999

DIP SWITCH SETTINGS

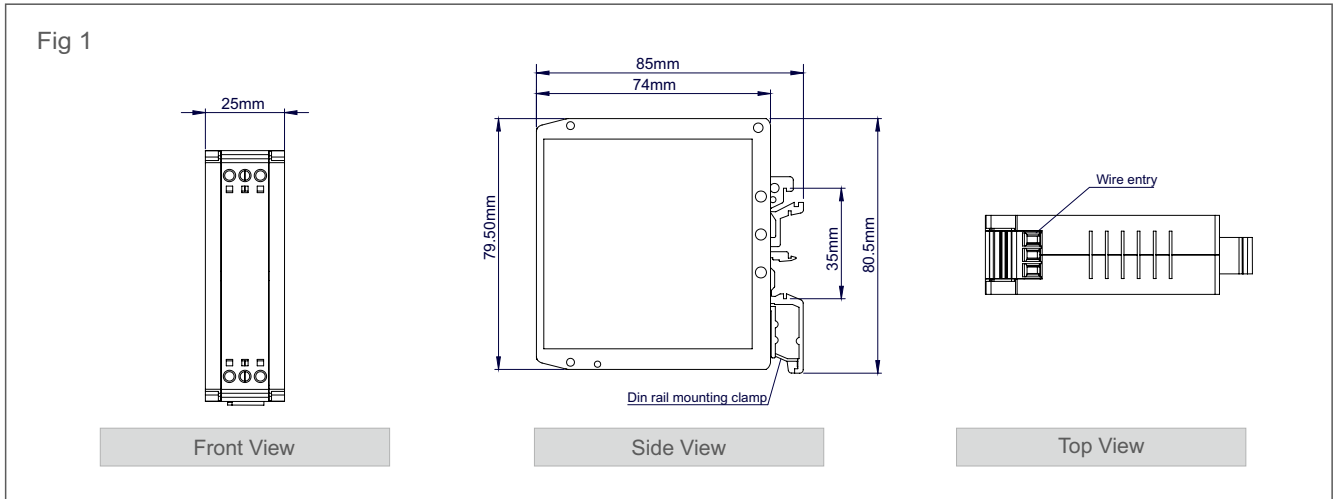
INPUT		DIP SWITCH			
		1	2	3	4
TEMPERATURE	TC K : 0~1200	OFF	OFF	OFF	OFF
TEMPERATURE	TC K : 0~1000	OFF	OFF	OFF	ON
TEMPERATURE	TC K : 0~600	OFF	OFF	ON	OFF
TEMPERATURE	TC J : 0~400	OFF	OFF	ON	ON
TEMPERATURE	TC J : 0~300	OFF	ON	OFF	OFF
TEMPERATURE	TC R : 0~1000	OFF	ON	OFF	ON
TEMPERATURE	TC S : 0~1600	OFF	ON	ON	OFF
TEMPERATURE	TC S : 0~1400	OFF	ON	ON	ON
TEMPERATURE	TC T : 0~400	ON	OFF	OFF	OFF
TEMPERATURE	0~75 mV	ON	OFF	OFF	ON
TEMPERATURE	0~100 mV	ON	OFF	ON	OFF
TEMPERATURE	Pt100, -50 ~ 100 °C	ON	OFF	ON	ON
TEMPERATURE	Pt100, 0 ~ 100 °C	ON	ON	OFF	OFF
TEMPERATURE	Pt100, 0 ~ 150 °C	ON	ON	OFF	ON
TEMPERATURE	Pt100, 0 ~ 200 °C	ON	ON	ON	OFF
TEMPERATURE	Pt100, 0 ~ 400 °C	ON	ON	ON	ON
LINEAR	0~10 mA	OFF	OFF	OFF	OFF
LINEAR	0~20 mA	OFF	OFF	OFF	ON
LINEAR	1~5 mA	OFF	OFF	ON	OFF
LINEAR	4~20 mA	OFF	OFF	ON	ON
LINEAR	20~0 mA	OFF	ON	OFF	OFF
LINEAR	20~4 mA	OFF	ON	OFF	ON
LINEAR	0~1 V	OFF	ON	ON	OFF
LINEAR	0~5 V	OFF	ON	ON	ON
LINEAR	1~5 V	ON	OFF	OFF	OFF
LINEAR	0~10 V	ON	OFF	OFF	ON
LINEAR	2~10 V	ON	OFF	ON	OFF
LINEAR	10~2 V	ON	OFF	ON	ON
LINEAR	10~0 V	ON	ON	OFF	OFF
LINEAR	4~20 mA	ON	ON	OFF	ON
LINEAR	4~20 mA	ON	ON	ON	OFF
LINEAR	4~20 mA	ON	ON	ON	ON



CONNECTION DIAGRAM



DIMENSIONS mm



FEATURES SUMMARY

- Input : Temperature - Pt100, JPT, TC B, C, D, E, G, J, K, N, R, S, T, L, U, PLII, Cu53
Linear - 0~20 mA, 4~20 mA, 0~5V, 1~5V, 0~10V, 2~10V
- 2 x 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

SCC332 : FIXED INPUT

CODE	SPECIFICATIONS	1	2	3	4	5
2966						
1	Input type					
	TC B	1				
	TC E	2				
	TC J	3				
	TC K	4				
	TC N	5				
	TC R	6				
	TC S	7				
	TC T	8				
	TC L	9				
	TC U	10				
	PLII	11				
	Pt100	12				
	Cu53	13				
	JPT100	14				
	0~20 mA	15				
	4~20 mA	16				
	20~0 mA	17				
	20~4 mA	18				
	1~5 mA	19				
	0~10 V	20				
	2~10 V	21				
	0~5 V	22				
	1~5 V	23				
	10~0 V	24				
Special*	25					
2	Output1					
	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	Output2					
	None			N		
	0~20 mA			A		
	4~20 mA			B		
	20~4 mA			C		
	0~1 V			D		
	0~2 V			E		
	0~5 V DC			F		
	0~10 V DC			G		
	Special**			H		
4	Burn Option					
	Out1 and out2 low				1	
	Out1 high and out2 Low				2	
	Out1 Low and out2 high				3	
	Out1 & out2 high				4	
5	Power Supply					
	85~265V AC					1
	18~42V DC					2

Range for temperature to be specified after input code.

CODE -1-2-3-4-5

Order Code Format : 2966-X-X-X-X-X

Example

FOR TCK input, 0~1200 °C, 2 x 4~20 mA output, burn high, SMPS
2966-4-B-B-4-1-0~1200

*** Special input will include:**

1. Non standard input type, eg Pt50 or 0~75 mV
2. Non standard unit, eg °F

MOQ will apply

****Special output will include**

Non standard output type, eg 1~5V

ORDERING INFORMATION

SCC332 : DIP

CODE	SPECIFICATIONS	1	2	3	4	5
2967						
1	Input type					
	Temperature (TC/Pt100/mV)	1				
	Linear (4~20/0~10V)	2				
	Special*	3				
2	Output1					
	0~20 mA		A			
	4~20 mA		B			
	20~4 mA		C			
	0~2 V DC		D			
	0 ~ 1 V		E			
	0~5 V DC		F			
	0~10V DC		G			
	Special**		H			
3	Output2					
	None			N		
	0~20 mA			A		
	4~20 mA			B		
	20~4 mA			C		
	0~2 V DC			D		
	0 ~ 1 V			E		
	0~5 V DC			F		
	0~10 V DC			G		
	Special**			H		
4	Burn Option					
	Out1 and out2 low				1	
	Out1 high and out2 Low				2	
	Out1 Low and out2 high				3	
	Out1 & out2 high				4	
5	Power Supply					
	85~265V AC					1
	18~42V DC					2

CODE-1-2-3-4-5

Order Code Format : 2967-X-X-X-X-X

Example

Pt100 input, First output : 4~20 mA, Second output : 0~10V, burn high, SMPS
2967-1-B-G-4-1

Note : By default input type and range will be Pt100 : 0~400°C for temperature and 4~20 mA input for linear

*** Special input will include:**

1. Non standard input type, eg Pt50 or 0~75 mV
2. Non standard unit, eg °F

MOQ will apply

****Special output will include**

Non standard output type, eg 1~5V

ORDERING INFORMATION

SCC332 : USB

CODE	SPECIFICATIONS	1	2	3	4	5
2968						
1	Input type					
	Temperature (TC/Pt100/mV)	1				
	Linear (mA/Vin)	2				
	Special*	3				
2	Output1					
	0~20 mA		A			
	4~20 mA		B			
	20~4 mA		C			
	0~2 V DC		D			
	0 ~ 1 V		E			
	0~5 V DC		F			
	0~10V DC		G			
	Special**		H			
3	Output2					
	None			N		
	0~20 mA			A		
	4~20 mA			B		
	20~4 mA			C		
	0~2 V DC			D		
	0 ~ 1 V			E		
	0~5 V DC			F		
	0~10V DC			G		
	Special**			H		
4	Burn Option					
	Out1 and out2 low				1	
	Out1 high and out2 Low				2	
	Out1 Low and out2 high				3	
	Out1 & out2 high				4	
5	Power Supply					
	85~265V AC					1
	18~42V DC					2

CODE -1-2-3-4-5

Order Code Format : 2968-X-X-X-X-X

Example

4~20 mA input, 2 x 0~10V output, burn high, SMPS
2968-2-G-G-4-1

Note : By default input type and range will be Pt100 :
 0~600°C for temperature and 4~20 mA input for linear

CONFIGURATOR FOR SCC332: USB

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

* Special input will include:

1. Non standard input type, eg Pt50 or 0~75 mV
2. Non standard unit, eg °F

MOQ will apply

**Special output will include

Non standard output type, eg 1~5V

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

PREFERRED ORDER CODES

SCC332 : FIXED INPUT

Order code	Input type	Range	Output 1 type	Output2 type	Supply
2966-12-B-B-4-2-0~400	Pt100	0~400	4~20 mA	4~20 mA	24V DC
2966-12-G-G-4-2-0~400	Pt100	0~400	0~10V DC	0~10V DC	24V DC
2966-4-B-B-4-2-0~1200	TCK	0~1200	4~20 mA	4~20 mA	24V DC
2966-4-G-G-4-2-0~1200	TCK	0~1200	0~10V DC	0~10V DC	24V DC
2966-16-B-B-4-2	4~20 mA	-	4~20 mA	4~20 mA	24V DC
2966-20-G-G-4-2	0~10V DC	-	0~10V DC	0~10V DC	24V DC
2966-16-G-G-4-2	4~20 mA	-	0~10V DC	0~10V DC	24V DC
2966-20-B-B-4-2	0~10V DC	-	4~20 mA	4~20 mA	24V DC
2966-12-B-B-4-1-0~400	Pt100	0~400	4~20 mA	4~20 mA	SMPS
2966-12-G-G-4-1-0~400	Pt100	0~400	0~10V DC	0~10V DC	SMPS
2966-4-B-B-4-1-0~1200	TCK	0~1200	4~20 mA	4~20 mA	SMPS
2966-4-G-G-4-1-0~1200	TCK	0~1200	0~10V DC	0~10V DC	SMPS
2966-16-B-B-4-1	4~20 mA	-	4~20 mA	4~20 mA	SMPS
2966-20-G-G-4-1	0~10V DC	-	0~10V DC	0~10V DC	SMPS
2966-16-G-G-4-1	4~20 mA	-	0~10V DC	0~10V DC	SMPS
2966-20-B-B-4-1	0~10V DC	-	4~20 mA	4~20 mA	SMPS

SCC332 : DIP

Order code	Input type (Refer DIP switch setting)	Range (Refer DIP switch setting)	Output type	Output 2 type	Supply
2967-1-B-B-2-2	Temperature type	According to DIP	4~20 mA	4~20 mA	24V DC
2967-2-B-B-2-2	Linear type	According to DIP	4~20 mA	4~20 mA	24V DC
2967-2-G-G-2-2	Linear type	According to DIP	0~10V DC	0~10V DC	24V DC
2967-1-B-B--2-1	Temperature type	According to DIP	4~20 mA	4~20 mA	SMPS
2967-2-B-B-2-1	Linear type	According to DIP	4~20 mA	4~20 mA	SMPS
2967-2-G-G-2-1	Linear type	According to DIP	0~10V DC	0~10V DC	SMPS

SCC332 : USB (Customer needs to purchase DCC501 & Utility for Configuration)

Order code	Input type	Range	Output type	Output 2 type	Supply
2968-1-B-B-2-2	Temperature type	Configurable	4~20 mA	4~20 mA	24V DC
2968-2-B-B-2-2	Linear type	Configurable	4~20 mA	4~20 mA	24V DC
2968-2-G-G-2-2	Linear type	Configurable	0~10V DC	0~10V DC	24V DC
2968-1-B-B--2-1	Temperature type	Configurable	4~20 mA	4~20 mA	SMPS
2968-2-B-B-2-1	Linear type	Configurable	4~20 mA	4~20 mA	SMPS
2968-2-G-G-2-1	Linear type	Configurable	0~10V DC	0~10V DC	SMPS

Note : Output burn condition is selected as high for all POC

ENQUIRIES

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