

Input Options for SI236

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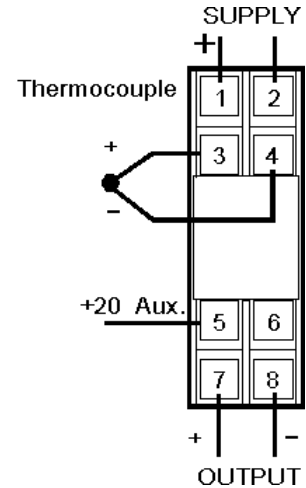
Option 4: Thermocouple Input

The SI236 can be equipped with a special thermocouple input circuit. Thermocouple types can be E, J, K, N, R, S and T. Automatic cold junction compensation is standard. On request the circuit can be configured for up-or-down scale burn-out.

T/C input spans: 4mV up to 80mV
 Input impedance: > 1M Ω
 Calibration accuracy: <0.5% of range.
 Cold junction compensation error: 0.02% per $^{\circ}\text{C}$ C/J change, over ambient range of 0-60 $^{\circ}\text{C}$ with input range 100 $^{\circ}\text{C}$

When ordering you must specify:

T/C type: (E, J, K, N, R, S, or T)
 Cal: ? - ??? $^{\circ}\text{C}$



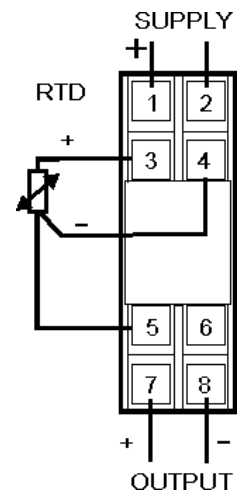
Option 5: RTD Input

The standard RTD (resistance temperature detector), is Platinum 100 (100 Ω at 0 $^{\circ}\text{C}$), however any user specified type of RTD can be accommodated as long as there is no substantial non-linearity. The RTD is part of an input bridge circuit and should be wired in 3-wire fashion to avoid errors caused by lead resistance changes. 2-wire connection can be used where a short lead length under constant temperature condition will not generate a resistance change. Sensor excitation current is as low as 0.6mA preventing self-heating of the sensor. Lead breakage will cause the output to increase to maximum (30mA).

Combined linearity and drift error: 0.5% of span
 Temperature effect: 0.01 % per $^{\circ}\text{C}$
 Input span: 7.8 Ω up to 290.3 Ω (20 $^{\circ}\text{C}$...850 $^{\circ}\text{C}$ Pt100)
 10 $^{\circ}\text{C}$ range is also available with reduced accuracy

When ordering you must specify:

Sensor: (Pt100)
 Cal: ? - ??? $^{\circ}\text{C}$



Option 6: Frequency / Pulse Input

Frequency Input

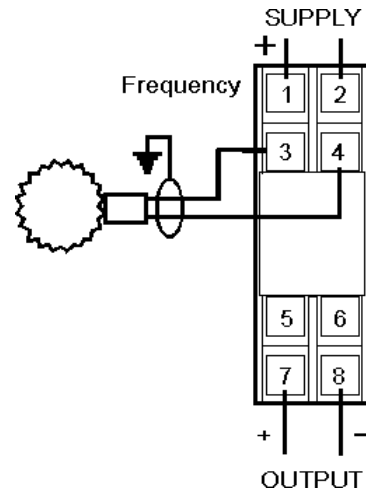
The SI236 can be configured for frequency input, accepting most pulse signals down to 0.2Vpp.

Calibration range: 0 - 10Hz up to 0 - 5kHz
 Input type: Sine, Triangle, Pulse, Square 200mVpp min (70mV r.m.s.). 22Vpp max.

Input impedance: typically 3k Ω .
 Linearity & repeatability: 0.2% of range
 Temperature effect: 0.012% / $^{\circ}\text{C}$
 Offset: -50% of range (e.g. 1 - 2kHz input)

When ordering you must specify:

Cal: ???-???Hz
 Level: 200mVpp min, 22Vpp max



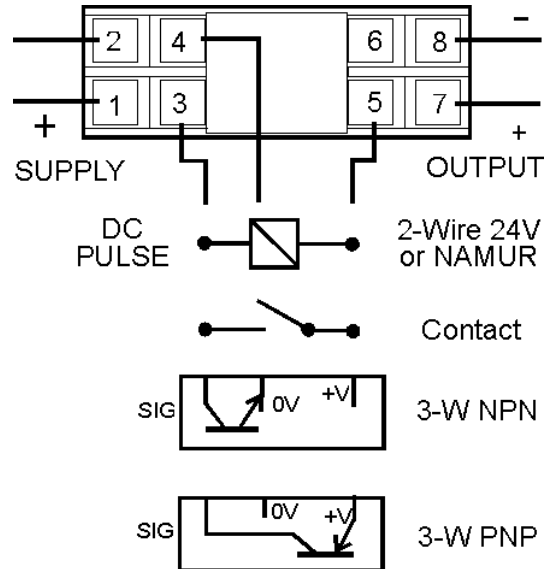
DC Pulse Input

The SI236 can also accept a pulse input from proximity sensors or passive devices such as contact or open collector devices. An auxiliary supply of 8Vdc or 24Vdc is available at terminal 5,

Calibration range: 0 - 10Hz up to 0 - 5kHz
 Input impedance: typically 3k Ω
 Linearity & repeatability: 0.2% of range
 Temperature effect: 0.012% / $^{\circ}\text{C}$
 Offset: -50% of range (e.g. 1 - 2kHz input)

When ordering you must specify:

Device: (NAMUR, NPN Prox, PNP Prox, or Contact)
 Aux Supply: between 8 and 20V (NAMUR 8V)
 Frequency: ??? - ??? Hz



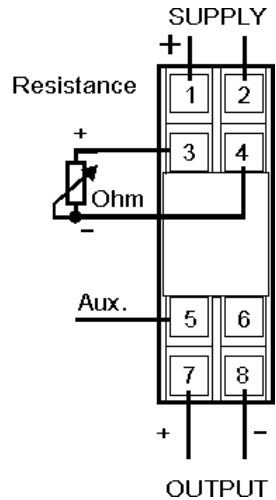
Option 7: Resistance 2-Wire

The resistance or slide wire receives a constant load independent current from a current source being part of the SI236. This current source is configured for two basic ranges: 4mA or 40mA. Final adjustment is carried out by a 15-turn internal trim potentiometer to suit the resistance sensor.

Input span: 2 Ω up to 5k Ω
 Combined linearity and drift error: 0.5% of input range.

When ordering you must specify:

Cal: ??-?? ohms (input span 0-2ohm up to 0-5k ohm)



Option 8: AC Current / Voltage

AC Voltage

For AC-voltage input the SI236 can be equipped with a precision rectifier circuit.

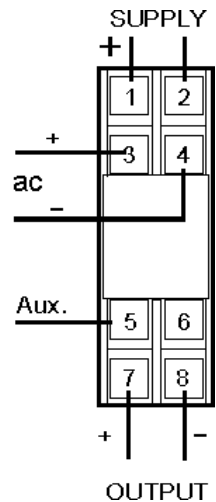
Input range: 10mV up to 500Vac
 Input impedance: 12k Ω for 10mV input
 > 1M Ω for 500V input.

Combined linearity and drift error < 0.5% of range

When ordering you must specify:

Cal: ?-???Vac (input range 10mV up to 500Vac)

Frequency: 50Hz ?



AC Current

For AC-current input to the SSP235, either an internal shunt or CT is fitted.

Input range: 0.5mA up to 10Aac (40-60Hz Sine)
 Input impedance: 0.008 Ω at 5A

When ordering you must specify:

Cal: 0-??Aac (0.5mA up to 10Aac)

Frequency: 50Hz