Input Options for SSP235

Input Options for SSP235 1
Option 4: Thermocouple Input 1
Option 5: RTD Input 1
Option 6: Frequency / Pulse Input 2
Frequency Input 2
DC Pulse Input 2
Option 7: Resistance 2-Wire 3
Option 8: AC Current / Voltage 3
AC Voltage 3
AC Current 3

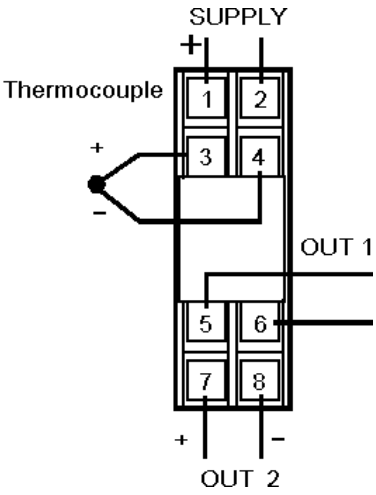
Option 4: Thermocouple Input

The SSP235 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 °C C/J change, over ambient range of 0-60°C with input range 100°C

When ordering you must specify:

T/C type: (E, J, K, N, R, S, or T)
Cal: ? - ???°C

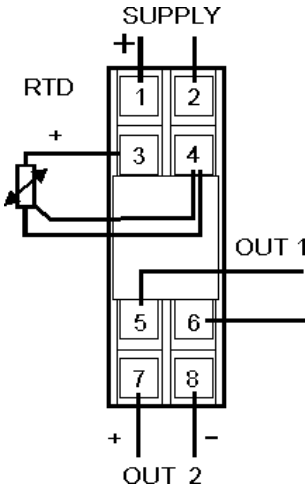


Option 5: RTD Input

The standard RTD (resistance temperature detector), is Platinum 100 (100 Ω at 0°C), however any user specified type of RTD can be accommodated as long as there is no substantial non-linearity. With only 2 input terminals available, 2-wire RTD input connection only is available. Short lead lengths should be used, since the resistance of the leads are added as a measurement error. 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 °C
Input span:	7.8 Ω up to 290.3 Ω (20°C...850°C Pt100) 10°C range is also available with reduced accuracy

When ordering you must specify:
Sensor: (Pt100)
Cal: ? - ???°C



Option 6: Frequency / Pulse Input

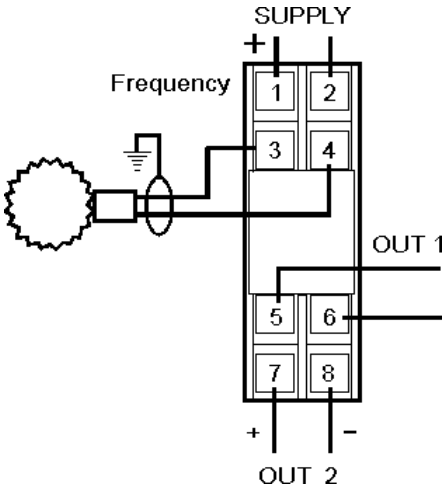
Frequency Input

The SSP235 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% / °C
Offset:	-50% of range (e.g. 1 - 2kHz input)

When ordering you must specify:

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



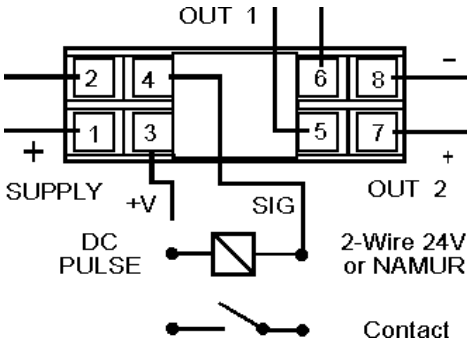
DC Pulse Input

The SSP235 can also accept a pulse input from proximity sensors or passive devices such as contact or open collector devices.

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

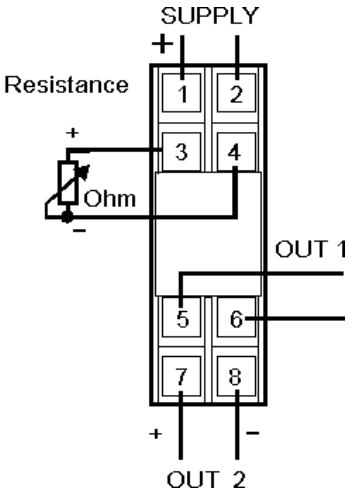
When ordering you must specify:

Device:	(NAMUR, Contact)
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 SSP235. 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.

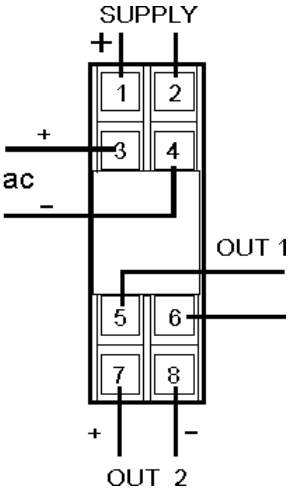
When ordering you must specify:
Cal: ??-?? ohms (input span 0-2ohm up to 0-5k ohm)

Option 8: AC Current / Voltage

AC Voltage

For AC-voltage input the SSP235 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