

□ Function & Features

- * **Two Inputs (Input A, Input B)**
(V, mV, mA, Loop Powered, RTD, T/C, Resistance and Potentiometer, ...)-options
- * **Multiple functions**
(Square-root, Adder, Substracter, Multiplier, Divider)-options
- * **Front-programmable**
- * **4-digit LED display**
- * **Analog-Output(Isolated) (mV / V / mA)**
(±10V, ±5V, ±1V, 0~10V, 0~1V, 0~5V, 4~20mA, 0~20mA)-options
- * **4 Points Contact output or Input (Alarm 1~4 or DI 1~4)-options**
- * **Communication Interface (RS-485) standard (Isolated)-options**



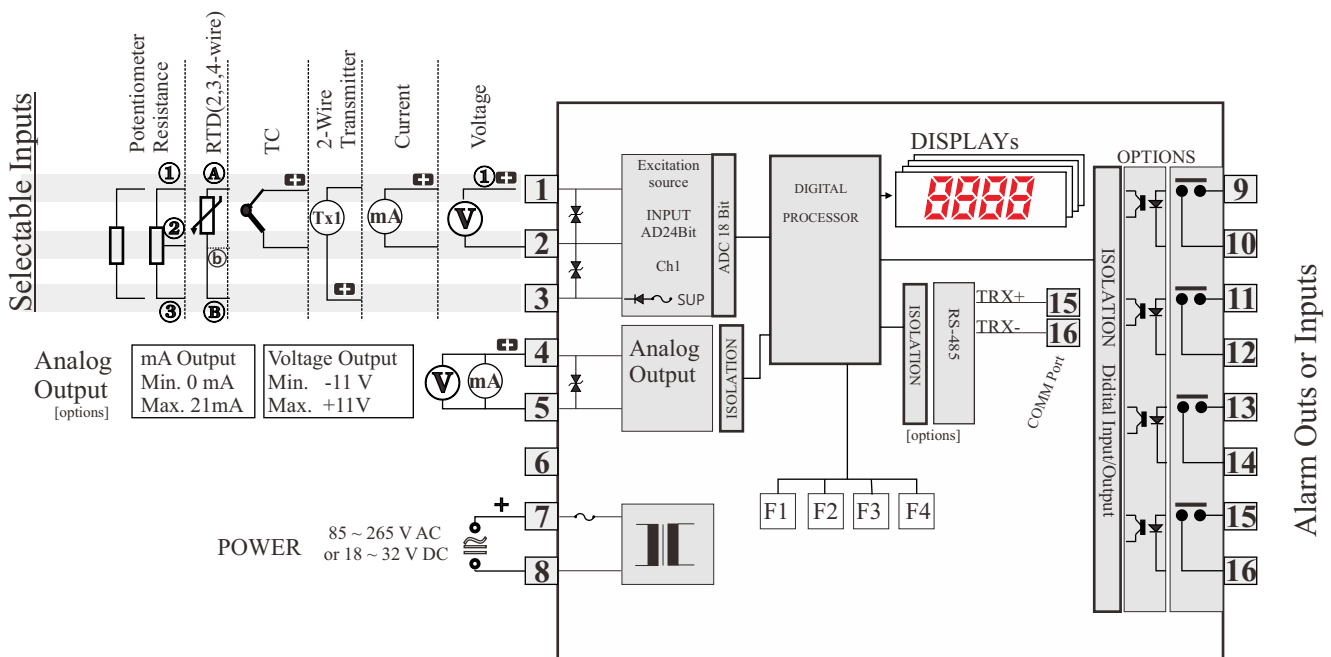
□ GENERAL SPECIFICATIONS

- Construction : Panel flush mounting
- Connection : M3.5 Screw terminals
- Housing material : flame-retardant Poly Carbonate (white)
- Power supply : AC 85 ~ 265V or DC 18 ~ 32V (about 3VA)
- Operating temperature : -5 ~ 55 °C (23 ~ 131 °F)
- Operating humidity : 10 ~ 90 % RH (non-condensing)
- Display range : 4 Digits (-1999 ~ 9999)
- Dimension : W96 x H48 x D118mm (3.78" x 1.89" x 4.65")
- Dimension of mounting hole(cutting) : W92 x H44mm (3.62"x1.73")

□ FUNCTION & MODEL

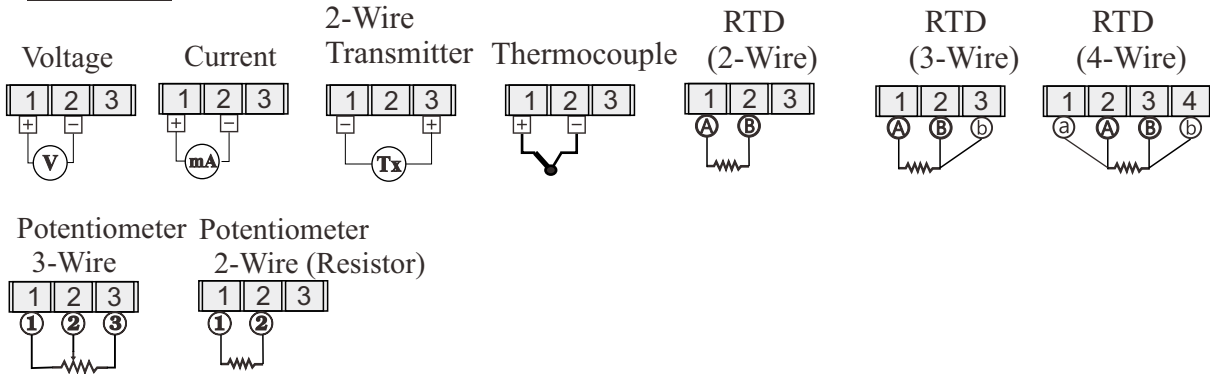
- Display Only : S-CON100
- Isolation Analog Output & Alarm outputs : S-CON200
- Isolation Analog Output : S-CON300

SCHEMATIC CIRCUIT & CONNECTION DIAGRAM

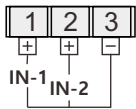


INPUT CONNECTION DIAGRAM

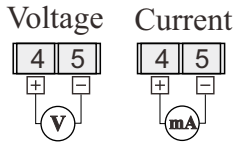
INPUT 1



INPUT 2 Voltage or Current



OUTPUT 1 (option)



POWER

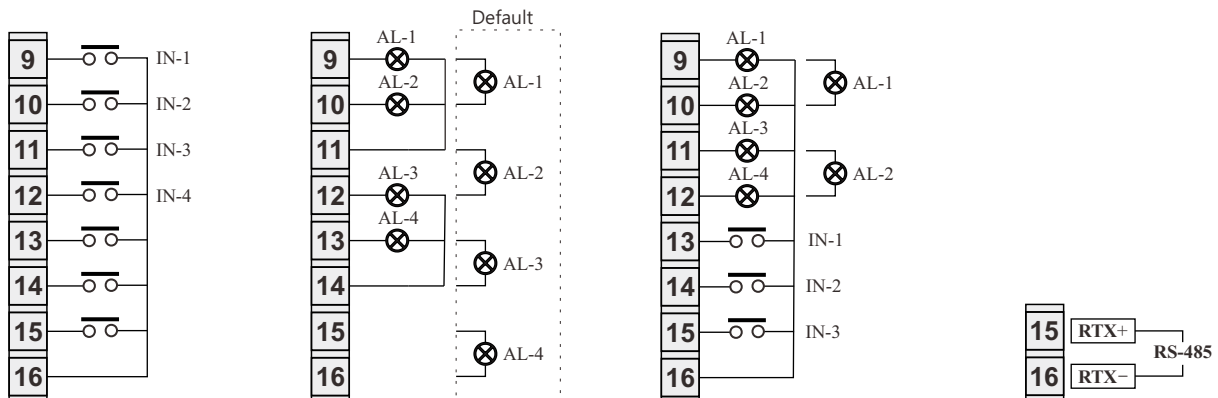


85 ~ 265 V AC
or 18 ~ 32 V DC

[OPTION]

- * Alarm outputs : 7 points (max.) Relay or Photo-coupler
- * Input : 7 points (max)
- * Communication port : 1 point

* 5~7 Input and output is SCON5500 only



MODEL & SUFFIX CODE

S-CON100N-□□□□

Input Type Selection (Available for Input A & Input B)

- 0 : None
 1 : Current : (Usable range) $\pm 20\text{mA}(\text{max.})$
 2 : Voltage : (Usable range) $\pm 10\text{V}(\text{max.})$
 3 : Millivolt : (Usable range) $\pm 1\text{V}(\text{max.})$
 L0 : (L0) Loop-Powered Current : (Usable range) 4~20mA (1 input)
 T : Thermocouples (1 Input)
 T1 : TYPE - K(CA)
 T2 : TYPE - E(CR)
 T3 : TYPE - J(IC)
 T4 : TYPE - T(CC)
 T5 : TYPE - B(RH)
 T6 : TYPE - R
 T7 : TYPE - S
 T8 : TYPE - N
 R : RTD (Input 1)
 R1 : RTD 2-Wire : Pt 100/500/1000 Ω -200~850 °C
 R2 : RTD 3-Wire : Pt 100/500/1000 Ω -200~850 °C
 R3 : RTD 4-Wire : Pt 100/500/1000 Ω -200~850 °C
 P : POTENTIOMETER 3-Wire (1 input)
 Q : POTENTIOMETER 2-Wire (1 input)
 (P or Q) 1 : 50 K Ω ~ 200 K Ω
 (P or Q) 2 : 20 K Ω ~ 100 K Ω
 (P or Q) 3 : 2 K Ω ~ 10 K Ω
 (P or Q) 4 : 1 K Ω ~ 4 K Ω
 (P or Q) 5 : 0 K Ω ~ 1 K Ω
 (P or Q) 6 : 0 Ω ~ 400 Ω

S : Other Special Spec.

Power Supply

- Z : AC 85~265V
 Y : DC 18~32V

R : Other Special Spec.

Ex.) S-CON100N-10Z0

Function

- 0 : Normal(Input-A) [Input-A to Output-1]
 1 : Square root(A)
 2 : Square Root Extractor(A)
 3 : Adder (A + B)
 4 : Subtractor (A - B)
 5 : Multiplier (A * B)
 6 : Divider (A / B)
 7 : Normal(Input-B) [Input-B to Output-1]

A: HSS(High Signal Select) / LSS(Low Signal Select)

R : Specify function

■ FUNCTION - CODE

- Analog Calculations
 [000] Normal input (A)
 [001] Square Root (A)
 [002] Root Extraction (A)
 [007] ADDER(A+B) : Addition of 2 analog inputs
 [008] SUBTRACTOR(A-B) : Subtraction of 2 analog inputs
 [009] MULTIPLIER(A*B) : Multiplication of 2 analog inputs
 [010] DIVIDER(A/B) : Division of 2 analog inputs
 [101] Normal input (B)
 -Peak-Hold
 [004] Peak-Hold(Higher)(A)
 [005] Peak-Hold(Lower)(A)
 [006] Peak-Hold(High/Low)(A)
 [105] Peak-Hold(Higher)(B)
 [106] Peak-Hold(Lower)(B)
 [107] Peak-Hold(High/Low)(B)

MODEL & SUFFIX CODE

S-CON200N-□□□□□□

Input Type Selection (Available for Input A & Input B)

- 0 : None
- 1 : Current : (Usable range) $\pm 20\text{mA}(\text{max.})$
- 2 : Voltage : (Usable range) $\pm 10\text{V}(\text{max.})$
- 3 : Millivolt : (Usable range) $\pm 1\text{V}(\text{max.})$
- L0 : (L0) Loop-Powered Current : (Usable range) 4~20mA (1 input)
- T : Thermocouples (1 Input)
 - T1 : TYPE - K(CA)
 - T2 : TYPE - E(CR)
 - T3 : TYPE - J(IC)
 - T4 : TYPE - T(CC)
 - T5 : TYPE - B(RH)
 - T6 : TYPE - R
 - T7 : TYPE - S
 - T8 : TYPE - N
- R : RTD (Input 1)
 - R1 : RTD 2-Wire : Pt 100/500/1000 Ω -200~850 $^{\circ}\text{C}$
 - R2 : RTD 3-Wire : Pt 100/500/1000 Ω -200~850 $^{\circ}\text{C}$
 - R3 : RTD 4-Wire : Pt 100/500/1000 Ω -200~850 $^{\circ}\text{C}$
- P : POTENTIOMETER 3-Wire (1 input)
- Q : POTENTIOMETER 2-Wire (1 input)
 - (P or Q) 1 : 50 K Ω ~ 200 K Ω
 - (P or Q) 2 : 20 K Ω ~ 100 K Ω
 - (P or Q) 3 : 2 K Ω ~ 10 K Ω
 - (P or Q) 4 : 1 K Ω ~ 4 K Ω
 - (P or Q) 5 : 0 K Ω ~ 1 K Ω
 - (P or Q) 6 : 0 Ω ~ 400 Ω

S : Other Special Spec.

Output Type & Range Selection (Available for Output 1)

- 0 : Not Used
- 1 : DC 4~20mA (Load Resistance : 0~600 Ω)
- 2 : DC 0~20mA (Load Resistance : 0~600 Ω)
- 3 : DC 1~5V (Load Resistance : 5 K Ω or more)
- 4 : DC 0~5V (Load Resistance : 5 K Ω or more)
- 5 : DC 2~10V (Load Resistance : 10 K Ω or more)
- 6 : DC 0~10V (Load Resistance : 10 K Ω or more)
- 7 : DC -5~+5V (Load Resistance : 10 K Ω or more)
- 8 : DC -10~+10V (Load Resistance : 10 K Ω or more)
- 9 : 2-Wire Transmitter(4~20mA DC) (9V ~ 35V DC)
- A : Frequency output (Voltage) B : Frequency output(Open Collect(Drain))
- C : Serial Port RS-485 D : Serial Port RS-232
- R : Other Special Spec.

DIGITAL I/O (Alarms)

- 0 : None
- 1 : 2-Contact outputs 2 : 4-Contact outputs 3 : 3-Contact outputs
- A : 1-Input 3-Contact outputs B : 2-Inputs 2-Contacts outputs
- R : Other Special Spec.

Power Supply

- Z : AC 85~265V
- Y : DC 18~32V
- R : Other Special Spec.

Ex.) S-CON200N-R312Z0

Function

- 0 : Normal(Input-A) [Input-A to Output-1]
- 1 : Square root(A)
- 2 : Square Root Extractor(A)
- 3 : Adder (A + B)
- 4 : Subtractor (A - B)
- 5 : Multiplier (A * B)
- 6 : Divider (A / B)
- 7 : Normal(Input-B) [Input-B to Output-1]
- A : HSS(High Signal Select) / LSS(Low Signal Select)
- R : Specify function

FUNCTION - CODE

- Analog Calculations
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- [010] DIVIDER(A/B) : Division of 2 analog inputs
- [101] Normal input (B)
- Peak-Hold
- [004] Peak-Hold(Higher)(A)
- [005] Peak-Hold(Lower)(A)
- [006] Peak-Hold(High/Low)(A)
- [105] Peak-Hold(Higher)(B)
- [106] Peak-Hold(Lower)(B)
- [107] Peak-Hold(High/Low)(B)

MODEL & SUFFIX CODE

S-CON300N-□□□□□

Input Type Selection (Available for Input A & Input B)

- 0 : None
- 1 : Current : (Usable range) $\pm 20\text{mA}(\text{max.})$
- 2 : Voltage : (Usable range) $\pm 10\text{V}(\text{max.})$
- 3 : Millivolt : (Usable range) $\pm 1\text{V}(\text{max.})$
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- A : Frequency output (Voltage) B : Frequency output(Open Collect(Drain))
- C : Serial Port RS-485 D : Serial Port RS-232
- R : Other Special Spec.

Power Supply

- Z : AC 85~265V
- Y : DC 18~32V

R : Other Special Spec.

Ex.) S-CON300N-P31Z0

Function

- 0 : Normal(Input-A) [Input-A to Output-1]
- 1 : Square root(A)
- 2 : Square Root Extractor(A)
- 3 : Adder (A + B)
- 4 : Subtractor (A - B)
- 5 : Multiplier (A * B)
- 6 : Divider (A / B)
- 7 : Normal(Input-B) [Input-B to Output-1]

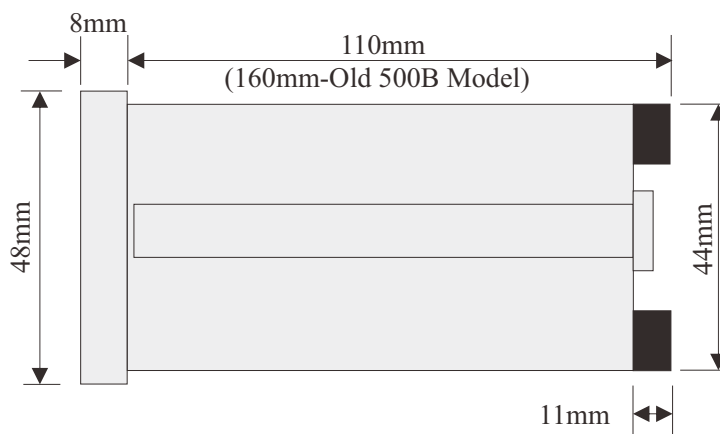
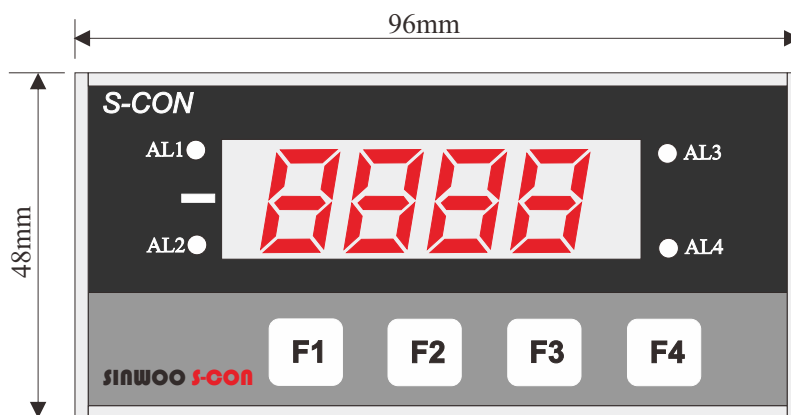
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- [101] Normal input (B)
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 - [106] Peak-Hold(Lower)(B)
 - [107] Peak-Hold(High/Low)(B)

DIMENSIONS



MOUNTING REQUIREMENTS

