Digital Controller

SD16A Series

SHIMADEN

BASIC FEATURES

- DIN Size 48 x 96 mm
- ± 0.3% High Accuracy Indication
- Large 20 mm bright display
  Make reading from long distance and low light location easier
- Multi-inputs & Multi-ranges
  User selectable Thermocouple, RTD, V, mV and Current inputs
  A 250Ω resistor is required across the input terminal for 4-20mA DC
- Inverse scaling possible
  With voltage and current input signals, normal and inverse scaling is possible.
  Additionally, normal and inverse scaling is possible for the analog output signals.
- Dust and splash proof front panel Equivalent to IP66
- Wide range of optional features
  Alarms, analog output signals and communication interface (RS-232C or RS-485: MODBUS / Shimaden)
  available Sensor power supply 24V DC available
- A six-point selector switch, (the KR16 series), is available for combined use.

ORDERING INFORMATION

	ITEM	CODE						SPECIFICATIONS	
1	SERIES	SD16A-						Digital Indicator DIN Size 48 x 96 mm	
			4					Current (4~20mA DC) Applied via enclosed 250Ω shunt resistor	Scaling possible (Inverse scaling possible) (Note:1)
2	INPUT		8					Multi input *Thermocouple B, R, S, K, E, J, T, N, {U, L (DIN 43710)} *R.T.D. Pt100Ω / JPt100Ω *Voltage (mV, V) 0~10mV DC, 0~5V DC, 0~10V DC, 1~5V DC	Value set at K 0~1200°C when shipped Voltage input: Scaling possible (Inverse scaling possible) (Note:1)
3	POWER SUPPLY			90-				100~240V AC±10% (50/60Hz)	
				08-				24V AC ±10% (50/60Hz) / 24V DC ±10% (Note:2)	
4	ALARM OUTPUT (OPTION)				0			None	
					1			Individual setting, individual output 2 points (a contact) Contact capacity:250V AC 1.5A / resistive load	
5	ANALOG OUTPUT (OPTION) OR SENSOR POWER SUPPLY (Note:2)					0		None	
						3		0~10mV DCOutput resistance:10Ω	Scaling possible (Inversescaling possible) within a measuring range code
						4		4~20mA DCLoad resistance:300Ω max.	
						6		0~10V DCLoad resistance:1mA max.	
						8		Sensor power supply 24V DC 25mA max.(Note:2)	
6	COMMUNICATION FUNCTION (OPTION)						0	None	
							5	RS-485 Shimaden standard protocol/MODBUS (RTU/ASCII) communication protocol	
							7	RS-232C Shimaden standard protocol/MODBUS (RTU/ASCII) communication protocol	
7	REMARKS							0	Without
								9	With (Please consult before ordering)

Notes:
1.Scaling range:-1999~9999 unit, Span:10~10000 unit
2.The sensor power supply may not be used when you select the Power Supply Code 08 (24V AC/DC).

MEASURING RANGE CODES

INPUT	TYPE	CODE	RANGE (°C)	RANGE (°F)
THERMOCOUPLE	B	01	0 ~ 1800	0 ~ 3300
	R	02	0 ~ 1700	0 ~ 3100
	S	03	0 ~ 1700	0 ~ 3100
	K	04	- 199.9 ~ 800.0	- 300 ~ 1500
	K	05	0 ~ 12000 ~ 2200	0 ~ 12000 ~ 2200
	E	06	0 ~ 7000 ~ 1300	0 ~ 7000 ~ 1300
	J	07	0 ~ 6000 ~ 1100	0 ~ 6000 ~ 1100
	T	08	- 199.9 ~ 300.0	- 300 ~ 600
	N	09	0 ~ 13000 ~ 2300	0 ~ 13000 ~ 2300
	＊1U	10	- 199.9 ~ 300.0	- 300 ~ 600
	＊1L	11	0 ~ 600	0 ~ 1100
	＊2WRe5-26	12	0 ~ 2300	0 4200
R.T.D.	Pt	31	- 199.9 ~ 600.0	- 300 ~ 1100
		32	- 100.0 ~ 100.0	- 150.0 ~ 200.0
	JPt	* 33	- 199.9 ~ 500.0	- 300 ~ 1000
		* 34	- 100.0 ~ 100.0	- 150.0 ~ 200.0
VOLTAGE	0 ~ 10mV	71	Initial value: 0.0 ~ 100.0 Scaling possible (Inverse scaling possible) Scaling setting range:-1999 ~ 9999 Span: 10~10000 unit	Thermocouple B, R, S, K, E, J, T, N: JIS/ANSI/IEC ＊1 Thermocouple U, L: DIN 43710 ＊2 Thermocouple WRe 5 - 26 : Made of Hoskins
	0 ~ 5V	81		
	1 ~ 5V	82		
CURRENT	0 ~ 10V	83		
	4 ~ 20mA	95		

Factory Setting:
Universal-InputK:0~1200°C
Current Input4~20mA 0.0~100.0 (Without unit)
Thermocouple T, U:Accuracy = ±0.5%FS for -100~0°C
±1%FS for -100°C or less
Thermocouple B:Accuracy=±5%FS for 400°C or less
* Scaleover occurs at -240.0°C at Pt (Code 31) or JPt (Code 33).

Any decimal position shown in the measuring ranges of thermocouple and R.T.D.inputs may be concealed.

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