INSTRUCTION MANUAL FOR SD430 MICROPROCESSOR INDICATOR

KEYPAD DESCRIPTION

(1) SET - SET KEY. On normal position(PV display), press once to access level 1.
Press once to access the next programmable parameter.

(2) < - SHIFT KEY.

(3) ∧ - UP KEY. Press to increase the set point or parameter value.

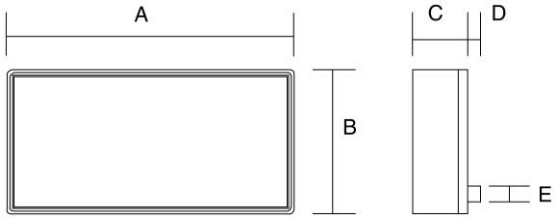
(4) ∨ - DOWN KEY. Press to decrease the set point or parameter value.

(5) SET + < - Press the SET and SHIFT keys simultaneously for 5 seconds to access level 2.

(6) < + ∨ - Press the SET and DOWN keys simultaneously for 5 seconds to reset all parameters to factory default setting when power on.

(7) SET + ∨ - On normal position(PV display), press the SET and DOWN keys simultaneously to hide/show the line parameters.

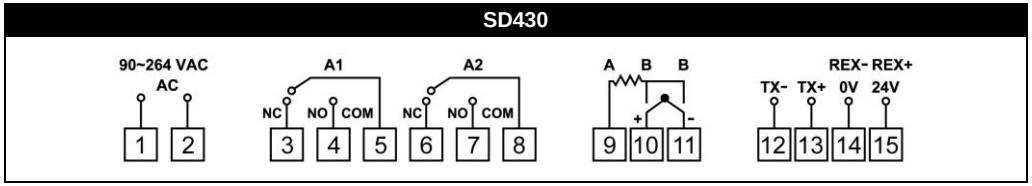
DIMENSION



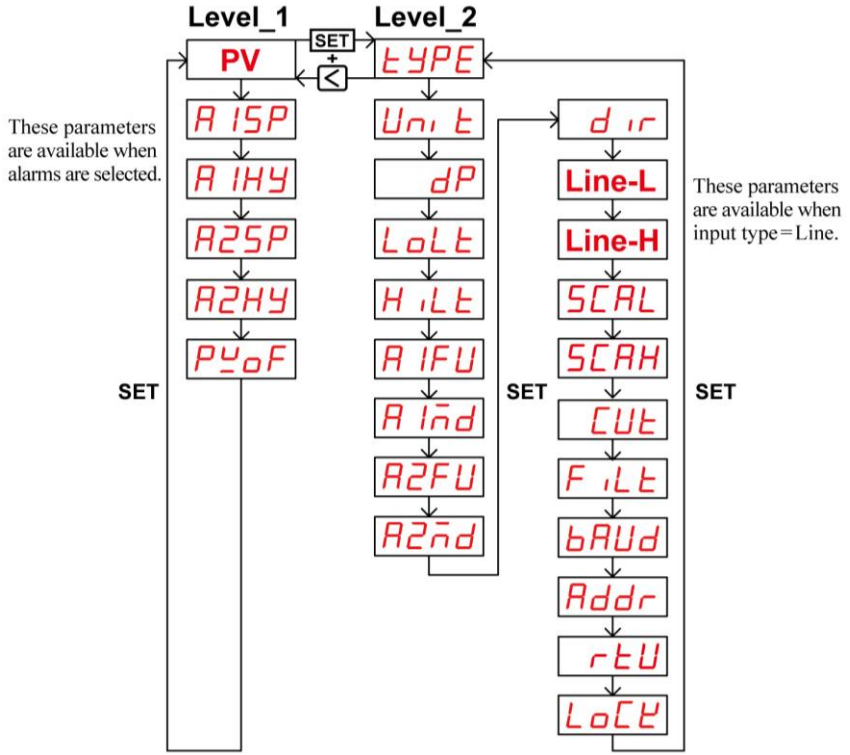
Model	A	B	C	D	E
SD430-3	374	150	61.2	13	14
SD430-4	464	150	61.2	13	14

(Unit:mm)

WIRING DIAGRAM



PARAMETERS FLOWCHART



PARAMETER DESCRIPTION

LEVEL 1

CODE	DESCRIPTION	RANGE	DEFAULT
A 1SP	Alarm 1 set point value	3 digits : -199 - 999 4 digits : -1999 - 9999	0
A 1HY	Hysteresis of alarm 1	3 digits : 0 - 999 4 digits : 0 - 9999	0
A2SP	Alarm 2 set point value	3 digits : -199 - 999 4 digits : -1999 - 9999	0
A2HY	Hysteresis of alarm 2	3 digits : 0 - 999 4 digits : 0 - 9999	0
PVoF	Process value offset. Permits the user to offset the PV indication from the actual PV	Full Scale ±5%	0

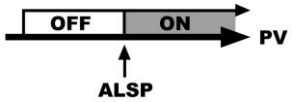
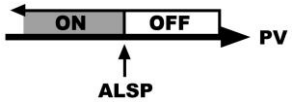
LEVEL 2

<table>
<tr><th>CODE</th><th>DESCRIPTION</th><th>RANGE</th><th>DEFAULT</th></tr>
<tr><td>tYPE</td><td>
Input type selection :
<table>
<tr><th>TYPE</th><th>RANGE (℃)</th><th>RANGE (℉)</th></tr>
<tr><td>J</td><td>-50~1000</td><td>-58~1832</td></tr>
<tr><td>K</td><td>-50~1370</td><td>-58~2498</td></tr>
<tr><td>T</td><td>-270~400</td><td>-454~752</td></tr>
<tr><td>E</td><td>-50~700</td><td>-58~1292</td></tr>
<tr><td>B</td><td>0~1750</td><td>32~3182</td></tr>
<tr><td>R</td><td>-50~1750</td><td>-58~3182</td></tr>
<tr><td>S</td><td>-50~1750</td><td>-58~3182</td></tr>
<tr><td>N</td><td>-50~1300</td><td>-58~2372</td></tr>
<tr><td>C</td><td>-50~1800</td><td>-58~3272</td></tr>
<tr><td>PT100</td><td>-200~600</td><td>-328~1112</td></tr>
<tr><td>mV</td><td colspan="2">-60.00mV ~ 60.00mV</td></tr>
<tr><td>Voltage</td><td colspan="2">-10.000 ~ 10.000Vdc</td></tr>
<tr><td>Current</td><td colspan="2">0.000 ~ 24.000mAdc</td></tr>
<tr><td>RSP</td><td colspan="2">Remote Set Point</td></tr>
</table>
※ Internal DIP switch setting :
<table>
<tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th></tr>
<tr><td>TC</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td></tr>
<tr><td>PT</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr>
<tr><td>mA</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td></tr>
<tr><td>V</td><td>OFF</td><td>ON</td><td>OFF</td><td>OFF</td></tr>
</table>
</td><td>Refer to figure</td><td>PT100</td></tr>
<tr><td>Unit</td><td>Unit of process value :
oC : Degrees C
oF : Degrees F
EnG : Engineer unit for linear input</td><td>oC
oF
EnG</td><td>℃</td></tr>
<tr><td>dP</td><td>Decimal point selection.
0000 : No decimal point
000.0 : 0.1 resolution
00.00 : 0.01 resolution, used for linear input only
0.000 : 0.001 resolution, used for linear input only
After change decimal point, please reconfirm the parameter.</td><td>0000
000.0
00.00
0.000</td><td>0000</td></tr>
<tr><td>LoLt</td><td>Low limit of measuring range</td><td>3 digits :
-199 - 999
4 digits :
-1999 - 9999</td><td>0</td></tr>
<tr><td>HiLt</td><td>High limit of measuring range</td><td>3 digits :
-199 - 999
4 digits :
-1999 - 9999</td><td>3 digits :
999
4 digits :
1000</td></tr>
</table>

A1FU	Alarm 1 function. oFF : Alarm action off Hi : Process high alarm Lo : Process low alarm	oFF Hi Lo	oFF
A1Md	Alarm 1 mode. Refer to alarm mode section for detail.	non St LA St.L	non
A2FU	Alarm 1 function. oFF : Alarm action off Hi : Process high alarm Lo : Process low alarm	oFF Hi Lo	oFF
A2Md	Alarm 1 mode. Refer to alarm mode section for detail..	non St LA St.L	non
dir	Defines the scalable analogue output signal to be 4 to 20mA or 20 to 4 mA..	4.20 20.4	4.20
mVL	Low Scale of mV Input	3 digits : -60.0~60.0 4 digits : -60.00~60.00	0
mVH	High Scale of mV Input	3 digits : -60.0~60.0 4 digits : -60.00~60.00	3 digits : 60.0 4 digits : 60.00
VL	Low Scale of Voltage Input	3 digits : -10.0~10.0 4 digits : -10.00~10.00	0
VH	High Scale of Voltage Input	3 digits : -10.0~10.0 4 digits : -10.00~10.00	3 digits : 60.0 4 digits : 60.00
mAL	Low Scale of mA Input	3 digits : 0.0~24.0 4 digits : 0.00~24.00	3 digits : 4.0 4 digits : 4.00
mAH	High Scale of mA Input	3 digits : 0.0~24.0 4 digits : 0.00~24.00	3 digits : 20.0 4 digits : 20.00

SCAL	Low Scale of Linear Input	3 digits : -199 - 999 4 digits : -1999 - 9999	0
SCAH	High Scale of Linear Input	3 digits : -199 - 999 4 digits : -1999 - 9999	3 digits : 999 4 digits : 1000
CUt	Cut-off function The Cut-off function is used to limit the process value of linear input signal within the boundary whenever the input signal is out of the scale. The cut-off function can be set to “Low”, “High” or “High/Low”, set to “None” disable the cut-off function. The cut-off function has no effect for input signal other than linear type and is only showed when the input signal type is set to linear.	non Lo Hi H.L	H.L
FILt	Software filter	0~999	0
bAUd	Communication baud rate. 2.4k=2400bps 4.8k=4800 bps 9.6k=9600 bps 19.2k=19200 bps	2.4k, 4.8k 9.6k, 19.2k	9.6k
Addr	Address of controller when communication with master device.	1-255	1
rtU	Modbus RTU protocol	n81 n82 o81 E82	n81
LoCK	Parameter lock. This security feature locks out selected levels. 001 All parameters are locked out 010 Only LEVEL 1 is adjustable 011 Only LEVEL 2 is adjustable 100 LEVEL 1 & LEVEL 2 are adjustable	001 010 011 100	011

ALARM FUNCTION

A1FU / A2FU	AlARM TYPE	ALARM OUTPUT OPERATION
oFF	Alarm function off	
Hi	Process high alarm	
Lo	Process low alarm	

ALARM MODE

A1MD/A2MD	DESCRIPTION
non	Normal alarm mode
St	Standby mode When selected, in any alarm function, prevents an alarm on power on. The alarm is enabled only when the process value reach alarm set point. Also known as “Startup inhibit” and is useful for avoiding alarm trips during startup.
LA	Latch mode. When selected, the alarm output and indicator latch as the alarm occurs. The alarm output and indicator will be energized even if the alarm condition has been cleared unless the power is shut off.
StL	Standby and latch mode