

Aptus Automation

Process Controller

User Manual

Notice before start-up

Please confirm the specification of instrument is to totally with your requirement before using it, also read this manual in detail.



Danger

Danger! Electric Shock! DON'T touch AC power wiring terminals when instrument has been powered! Keep the power off until all of the wirings are completed!



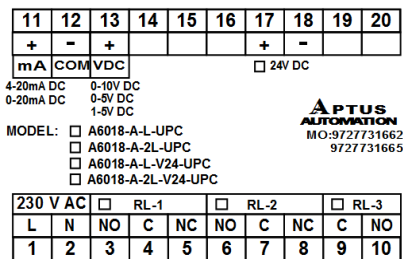
Warning

- 1) Please confirm the AC power wiring to instrument is correct, otherwise it would be caused aggravated damage on instrument.
- 2) Be sure to use the rated power supply, otherwise it would be caused aggravated damage on instrument.
- 3) Please confirm wires are connected with correct terminal (Power, Input and Output).
- 4) Avoid installing instrument in following spaces:
 - I. A place where the ambient temperature may reach beyond the range from 0 to 50°C
 - II. A place where the ambient humidity may reach beyond the range from 20 to 90% RH.
 - III. A place where the instrument likely to come into contact with water, oil, chemicals, steam and vapor.
 - IV. A place where the instrument is subject to interface with static electricity, magnetism and noise.
- 5) For proximity input, use shield compensating lead wire.

TECHNICAL SPECIFICATIONS

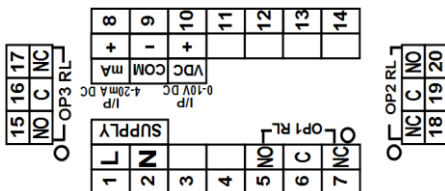
Product Name	: Process Controller
Model No.	: A6018-X-L-UPC/A6018-X-2L-UPC/A6018-X-L-V24-UPC/A6018-X-2L-V24-UPC
Relay Output	: Up to 2 nos. of Relay (5 Amp. 1 CO)
Input	: 0-20mA / 4-20mA / 0-5VDC / 0-10VDC / 1-5VDC
Range	: -999 to 9999
Resolution	: Settable 9.999, 99.99, 999.9, 9999
Accuracy	: Better than $\pm 0.5\%$ of Full Scale
Display	: 4 Digits RED + 4 Digits GREEN (Seven Segment Display)
Control Type	: High Alarm, Low Alarm, In-Band, Out-Band, Absolute Low Alarm, Absolute Out-Band
Power Supply	: 230VAC $\pm 10\%$, 50Hz

A6018-A (96x96) Terminal Wiring



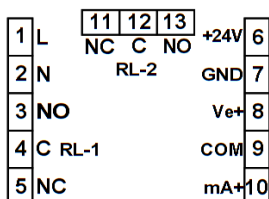
INPUT TYPE	A6018-A-L/A6018-A-2L
230 V AC Power supply	Terminal 1 & 2
mA DC Input	Terminal 11(mA+) & 12(mA-)
VDC Input	Terminal 13(V+), 12(V-)
Output 1(Relay)	Terminal 3(NO), 4(C) & 5(NC)
Output 2(Relay)	Terminal 6(NO), 7(C) & 8(NC)
24V DC	Terminal 17(24V+), 18(24V-)

A6018-D (72x72) Terminal Wiring



INPUT TYPE	A6018-D-L/A6018-D-2L
230 V AC Power supply	Terminal 1 & 2
mA DC Input	Terminal 8(mA+) & 9(mA-)
VDC Input	Terminal 10(V+), 9(V-)
Output 1(Relay)	Terminal 5(NO), 6(C) & 7(NC)
Output 2(Relay)	Terminal 18(NO), 19(C) & 20(NC)
24V DC	-

A6018-D2 (48x48) Terminal Wiring



INPUT TYPE	A6018-D2-L/A6018-D2-2L
230 V AC Power supply	Terminal 1 & 2
mA DC Input	Terminal 10(mA+) & 9(mA-)
VDC Input	Terminal 8(V+), 9(V-)
Output 1(Relay)	Terminal 3(NO), 4(C) & 5(NC)
Output 2(Relay)	Terminal 13(NO), 12(C) & 11(NC)
24V DC	Terminal 6(24V+), 7(24V-)

A6018-E (48x96) Terminal Wiring

4-20mA DC		0-5V DC		1-5V DC		0-10V DC		24 VDC		230V AC	
mA	COM	VDC								N	L
+	-	+		-	+						
20	19	18	17	16	15	14	13	12	11		
MODEL: A6018-E-2L-UPC-V24											
				OUTPUT 2				OUTPUT 1			
				NC	C	NO		NC	C	NO	
1	2	3	4	5	6	7	8	9	10		

INPUT TYPE	A6018-E-L/A6018-E-2L
230 V AC Power supply	Terminal 11 & 12
mA DC Input	Terminal 20(mA+) & 19(mA-)
VDC Input	Terminal 18(V+), 19(V-)
Output 1(Relay)	Terminal 10(NO), 9(C) & 8(NC)
Output 2(Relay)	Terminal 7(NO), 6(C) & 5(NC)
24V DC	Terminal 15(24V+), 16(24V-)

Display Messages:

- The various messages can be displayed on instrument as shown in below table.

DISPLAY	DESCRIPTION
IPLO	Input signal is below than lower range (For 4-20mA or 1-5VDC)
IPHI	Input Signal is high than higher range

SET Menu:

- Press SET Key till 1sec to go in this menu. Press SET Key for 5Sec to go into configuration menu. Press the Enter key to exit & save value.

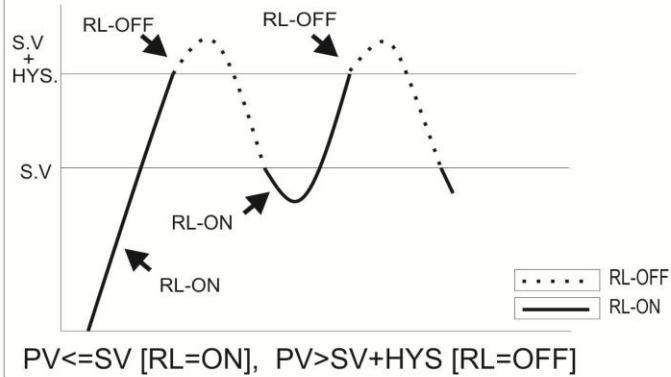
KEY	LOWER DISPLAY	UPPER DISPLAY	FUNCTION	RANGE
SET (> 1 sec)	SEt	100	Set: Set value of Temperature for Relay-1 operation. Using UP & DOWN key, set the required value.	rngL~rngH
SET	SEt 2	50	Set 2: Set value of Temperature for Relay-2 operation. Using UP & DOWN key, set the required value. (This parameter is available if the Con.2 mode is not selected to OFF)	rngL~rngH
SET (> 5 sec)	PASS	0	Password: Enter the Password 0808 to go into configuration menu. Using UP & DOWN key, set the required value.	-

Configuration Menu:

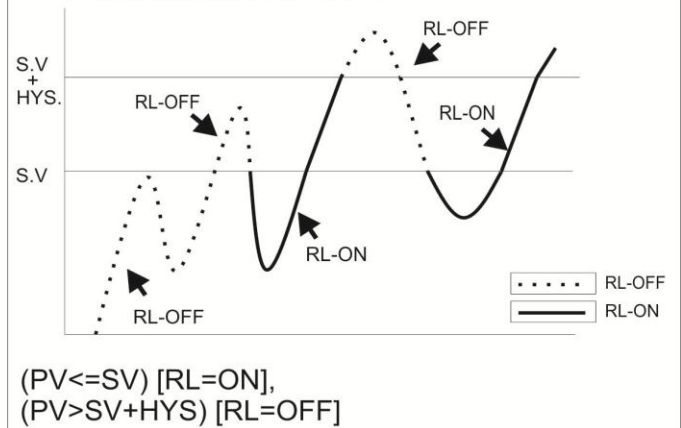
KEY	LOWER DISPLAY	UPPER DISPLAY	FUNCTION	RANGE
SET	InPt	0-10	Input Type: Set the Input type. [0-20mA / 4-20mA / 0-5VDC / 0-10VDC / 1-5VDC] (Use UP key to change Input type)	-
SET	SLL	3.5	Signal Low Level: Set the value of Signal low level parameter. Using UP & DOWN key, set the required value. (4-20mA= 0.1~5.0, 1-5VDC = 0.1~5.0) (This is applicable if input is set to "4-20mA" or "1-5VDC")	0.1~5.0
SET	OFSt	0	Offset Value: Set the Offset value. This is directly added or subtracted from PV. Using UP & DOWN key, set the required value.	0000~9999
SET	rngL	0	Range Low: Set the value of range low parameter for display. Using UP & DOWN key, set the required value.	-999~9999
SET	rngH	1000	Range High: Set the value of range high parameter for display. Using UP & DOWN key, set the required value.	-999~9999
SET	dP	999.9	Decimal Point: Set the Decimal point as per requirement. Using UP key, set the required decimal point value.	999.9~9999
SET	FLtr	01	Filter: Set the Filter value as per requirement. Using UP & DOWN key, set the required value.	01~30
SET	Con.1	HIAL	Control Output-1: Set the mode of Relay-1 operation. Using UP key, set Relay-1 operation mode. [HIAL / LOAL / In-b / oU-b / Ab-O / Ab-L]	-
SET	HYS	10	Hysteresis-1: Set the Hysteresis in temperature for Relay-1 operation. Using UP & DOWN key, set the required value.	-999~999
SET	Con.2	HIAL	Control Output-2: Set the mode of Relay-2 operation. Using UP key, set operation mode. [HIAL / LOAL / In-b / oU-b / Ab-O / Ab-L / OFF]	-
SET	HYS.2	10	Hysteresis-2: Set the Hysteresis in temperature for Relay-2 operation. Using UP & DOWN key, set the required value. (This parameter is available if the Con.2 mode is not selected to OFF)	-999~999
ENTER	SEtr	no	Set in run: Set the required mode for this parameter. YES: Set value can be changed in runtime. No: Set value can't be changed in run time. Using UP & DOWN key, set the required value.	YES / no

ALARM OPERATION

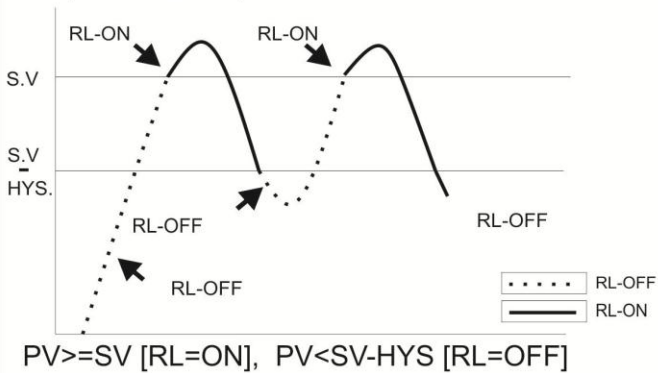
LOW ALARM:



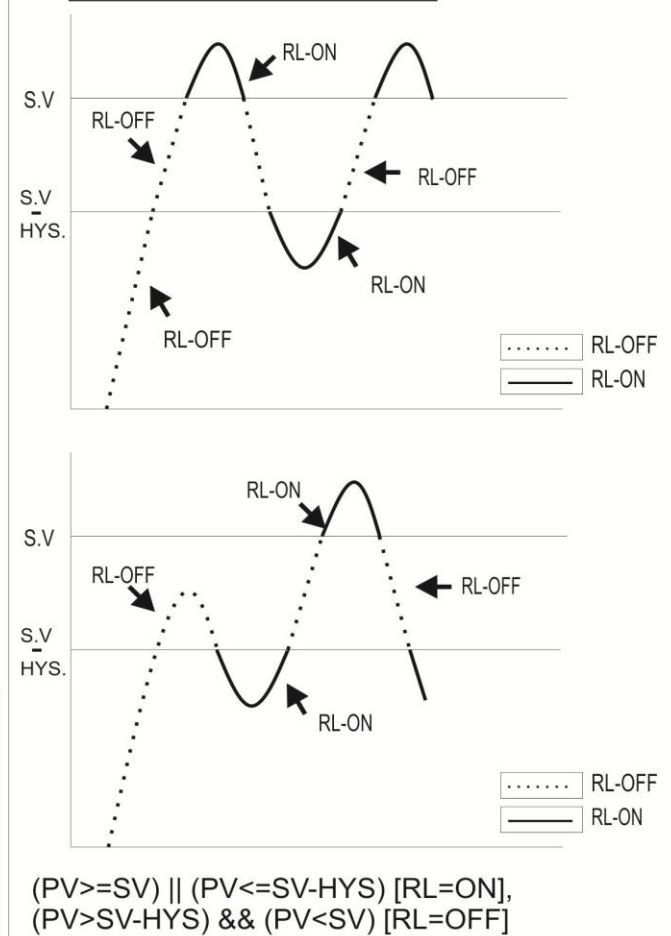
ABSOLUTE LOW ALARM:



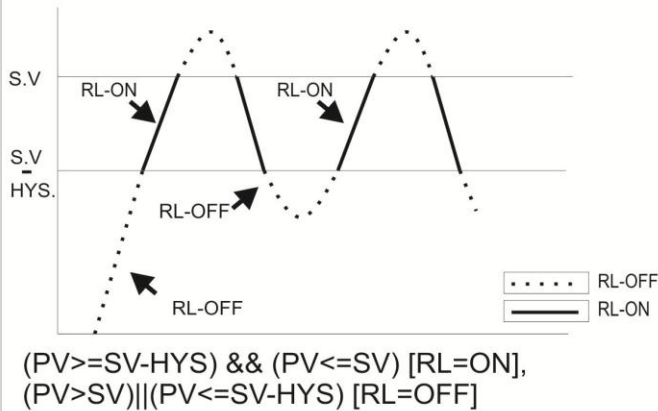
HIGH ALARM:



ABSOLUTE OUTBAND ALARM:



INBAND ALARM:



OUTBAND ALARM:

