

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!



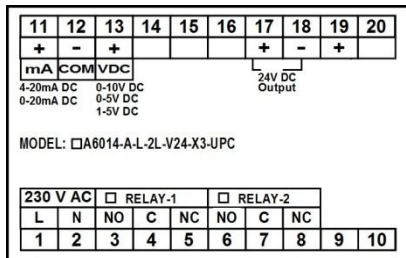
Warning

- 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

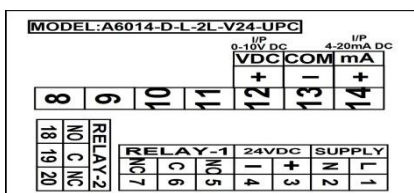
Product Name	: Process Controller
Model No.	: A6014-X-L-UPC/A6014-X-2L-UPC/A6014-X-L-V24-UPC/A6014-X-2L-V24-UPC
Relay Output	: Up to 2 nos. of Relay (5 Amp. 1 CO)
Input	: 0-20mA / 4-20mA / 0-5VDC / 0-10VDC / 1-5VDC
Range	: -999 to 9999
Resolution	: Settable 9.999, 99.99, 999.9, 9999
Accuracy	: Better than $\pm 0.5\%$ of Full Scale
Display	: 4Digits RED (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

A6014-A (96x96) Terminal Wiring



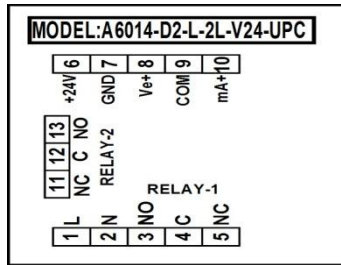
INPUT TYPE	A6014-A-L/A6014-A-2L
230 V AC Power supply	Terminal 1 & 2
mA DC Input	Terminal 11(mA+) & 12(mA-)
VDC Input	Terminal 13(V+), 12(V-)
Output 1(Relay)	Terminal 3(NO), 4(C) & 5(NC)
Output 2(Relay)	Terminal 6(NO), 7(C) & 8(NC)
24V DC	Terminal 17(24V+), 18(24V-)

A6018-D (72x72) Terminal Wiring



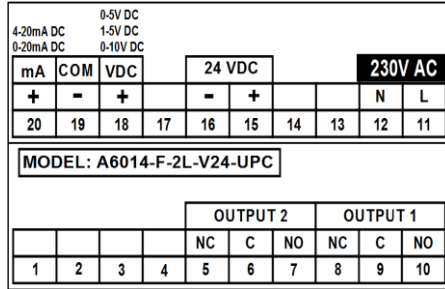
INPUT TYPE	A6014-D-L/A6014-D-2L
230 V AC Power supply	Terminal 1 & 2
mA DC Input	Terminal 14(mA+) & 13(mA-)
VDC Input	Terminal 12(V+), 13(V-)
Output 1(Relay)	Terminal 5(NO), 6(C) & 7(NC)
Output 2(Relay)	Terminal 18(NO), 19(C) & 20(NC)
24V DC	Terminal 3(24V+), 4(24V-)

A6018-D2 (48x48) Terminal Wiring



INPUT TYPE	A6014-D2-L/A6014-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-F (96x48) Terminal Wiring



INPUT TYPE	A6014-F (96X48)
230 V AC Power supply	Terminal 11 & 12
mA DC Input	Terminal 20(+Ve) & Terminal 19(-Ve).
VDC Input	Terminal 18(+Ve) & Terminal 19(-Ve).
Control Output 1	Relay-1 Terminal 10(NO), 9(C), 8(NC).
Control Output 2	Relay-2 Terminal 7(NO), 6(C), 5(NC).
24V DC	24VDC Terminal 15(+24V), 16(-24V).

SET Menu:

- Press SET Key till 1 sec to enter in this menu.
- Press the SET Key for 5 Seconds to go into configuration menu.
- Otherwise press the Enter key to exit & save changes.
- Using UP & DOWN Key, Set the required value.

KEY	LOWER DISPLAY	FUNCTION	RANGE
SET (> 1 sec)	SEt	Set: Press the SET KEY to set this parameter.	-
SET	0500	Set value for Relay-1 operation.	rngL~rngH
SET	SEt2	Set 2: Press the SET KEY to set this parameter.	-
SET	0500	Set value 2 for Relay-2 operation.	rngL~rngH
SET (> 5 sec)	PASS	Password: Press the SET KEY to set this parameter.	-
SET	0000	Set the password 808 to into configuration menu.	0~9999

Configuration Menu:

KEY	LOWER DISPLAY	FUNCTION	RANGE
ENTER	InPt	Input Type: To select the Input type press, SET KEY.	-
SET	0-10	Select the Input type. [0-20mA / 4-20mA / 0-5VDC / 0-10VDC / 1-5VDC]	-
SET	SLL	Signal Low Level: Press the SET KEY to set this parameter.	-
SET	3.7	Set the input signal low level. (4-20mA = 0.1~5.0, 1-5VDC = 0.1~1.0) (This is applicable if input is set to "4-20mA" or "1-5VDC")	0.1~5.0
SET	OFSt	Offset Value: Press the SET KEY to set this parameter.	-
SET	0000	Set the offset value. This is directly added or subtracted from Process Value.	0~9999
SET	rngL	Range Low: Press the SET KEY to set this parameter.	-
SET	0000	Set the range low value for Process Value.	-999~rngH
SET	rngH	Range High: Press the SET KEY to set this parameter.	-
SET	0000	Set the range high value for Process Value.	rngL~9999
SET	dP	Decimal Point: Press the SET KEY to set this parameter.	-
SET	9999	Set the decimal point as per requirement.	9999/ 999.9/ 99.99/ 9.999
SET	FLtr	Filter: Press the SET KEY to set this parameter.	-
SET	05	Set the filter for Process Value.	01~30

SET	Con.1	Control Output-1: Press the SET KEY to set this parameter.	-
SET	HIAL	Select the operation mode for control output 1. [HIAL / LOAL / In-b / oU-b / Ab-O / Ab-L]	-
SET	HYS	Hysteresis-1: Press the SET KEY to set this parameter.	-
SET	0000	Set the hysteresis for control output 1.	-999~999
SET	Con.2	Control Output-2: Press the SET KEY to set this parameter.	-
SET	HIAL	Select the operation mode for control output 2. [HIAL / LOAL / In-b / oU-b / Ab-O / Ab-L / OFF]	-
SET	HYS2	Hysteresis-2: Press the SET KEY to set this parameter.	-
SET	0000	Set the hysteresis for control output 2.	-999~999
SET	SEtr	Set in run: Press the SET KEY to set this parameter.	-
SET	0000	YES: Set point-1 is can be changed in runtime. No: Set point-1 is can't be changed in run time.	YES/ no

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

ALARM OPERATION

