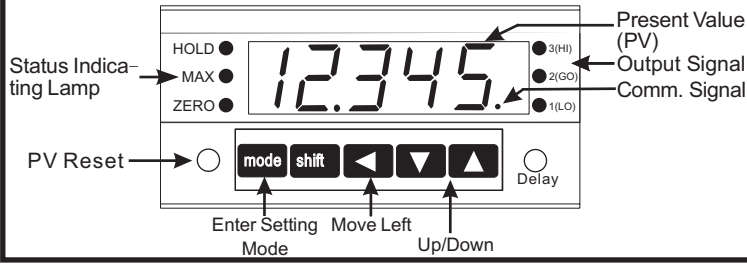


# VU3-5xK User Manual

V1.1



## Parameter Setting 1 (Press **mode** to start.)

Display	Description	Level
SP-1	<b>Setting 1:</b> OUT1 Setting: Press <b>mode</b> , <b>▲</b> , and <b>▼</b> to change settings. Max. setting range: 19999.	1
SP-2	<b>Setting 2: (VU3-52K)</b> OUT2 Setting: Press <b>mode</b> to start setting. Max. setting range: 19999.	
SP-3	<b>Setting 3: (VU3-53K)</b> OUT3 Setting: Press <b>mode</b> to start setting. Max. setting range: 19999.	

## Parameter Setting 2 (Press **mode** for 5 seconds to enable.)

Display	Description	Level
r1nod	<b>Setting 1:</b> OUT1 setting: Press <b>mode</b> , <b>▲</b> , and <b>▼</b> . Hi: Maximum comparative output.	2
Lo	Lo: Minimum comparative output.	
H HYS	H HYS: Maximum comparative delayed output.	
L HYS	L HYS: Minimum comparative delayed output.	
Please refer to output curve for the above operations.		
r1fun	<b>Setting 1: (r1fun)</b> OUT1 additional function: <b>▲</b> and <b>▼</b> : change settings. None: Normal, no additional functions.	
STADY	Stady: No action when reach the condition at the first time after startup.	
ONDLY	On dly: Output after a certain time.	
OFDLY	Of dly: Switch off output after a certain time.	
r1dly	<b>OUT1 Delay Time: (r1dly)</b> OUT1 output delay setting: to determine the duration delay time when output mode is set as "on dly" or "off dly". Range: 0 - 99.9 sec.	
r1HYS	<b>OUT1 Hysteresis: (r1HYS)</b> OUT1 output hysteresis setting: to determine the range when output mode is set at upper hysteresis or lower. Range: 0 - 999.	

### Note:

- To finish setting, press **mode** for 2 seconds or wait 15 seconds, setting mode will end automatically.
- "Parameter Setting 2" provides 4 setting items for each output relay, which are "Output Mode", "Output Function", Output Delay", and "Output Hysteresis". Setting of OUT1 is demonstrated above as an example. In the situation that OUT2 or OUT3 is available, please consult the above instruction.

## Parameter Setting 3 (Press **mode** + **shift** for 5 sec. to start.)

Display	Description	Level
AVG	<b>Average Sampling Times: (avg)</b> The more the times are, the steadier the PV is, yet renew rate is also slower. Range: 0-99.	3
CUT	<b>Cut Value Filter: (cut)</b> If PV < CUT, PV is displayed as 0. Range: 0 - 999.	
SPLTD	<b>Value Setting Limit: (SPLTD)</b> To limit the maximum value of SP1, 2 and 3. Range: 0 - 19999.	
ZoLCK	<b>Zero Key Protection: (ZoLCK)</b> Off: Zero key enabled. On: Zero key disabled.	
Pnt	<b>Decimal Position: (Pnt)</b> To change the position of decimal (irrelevant with resolution). Range: 0 - 4	
TEACH	<b>PV TEACH Setting: (TEACH)</b> To change the position of decimal (irrelevant with resolution). Range: 0 - 4	
IN-1	IN-1: The initial point of input signal. Present value can be acquired by pressing <b>mode</b> or input manually.	
DS-1	DS-1: To set the initial display value.	
IN-2	IN-2: The final point of input signal. Present value can be acquired by pressing <b>mode</b> or input manually.	
DS-2	DS-2: To set the final display value.	
CTL	<b>Control Input Setting: (CTL)</b> To define the function of input terminals.	
C-Zo	C-Zo: To reset PV continuously. Resets at every input signal. (Zero lamp ON)	
T-Zo	T-Zo: Toggle reset. To reset at the first signal and disable reset at the second input, then reset again, and so forth.	
Hold	Hold: To hold PV when controlling signal is kept input (Hold lamp ON), and to be disabled when circuit is open.	
PEAK	PEAK: To start sampling the peak value and keep it when controlling signal is kept input (Max lamp ON), and to be disabled when circuit is open.	
RYOFF	RYOFF: Forces to disable all relay outputs when controlling signal is kept input, and to activate when circuit is open.	
Comm	<b>Communication Setting (COMM):</b> (optional function) To set serial comm. Ports. This product supports MODBUS \ RTU mode.	
ID	ID: ID of this unit. Range: 1 - 99.	
BAUD	BAUD: Data transfer rate: 9600 or 19200.	
DATA	DATA: Data transfer format: 4 types available: 8-n-1: 8-bit data, non-parity bit, 1 stop bit. 8-n-2: 8-bit data, non-parity bit, 2 stop bits. 8-O-1: 8-bit data, odd parity bit, 1 stop bit. 8-E-1: 8-bit data, even parity bit, 1 stop bit.	
DA-A	<b>Analog Output Setting (D-A):</b> (optional function) To set the ratio of analog output.	
DA-Lo	DA-Lo: To set the display value when analog output is "0". Range: -1999 ~ 19999.	
DA-Hi	DA-Hi: To set the display value when analog output is "at the full scale". Range: -19999 ~ 19999.	

## Parameter Protecting Level (Press **mode** + **▲** for 5 sec. to start.)

Display	Description
 (Press <b>mode</b> for 2 sec. to end.)	<b>Parameter Protecting Setting: (Prote)</b> 0: To disable adjustment of all parameters. 1: Only "Parameter 1" can be adjusted. 2: Opens to Parameter 2 for adjusting. 3: Opens to ZoLock of Parameter 3 for adjusting. 4: All parameters are available for adjusting.

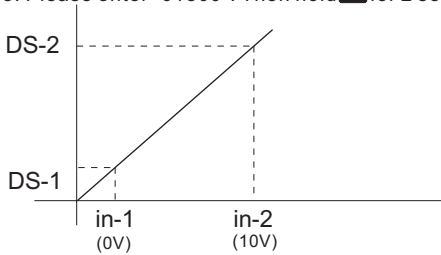
## Zeroing

Press the "Zero" key on the panel to clear and reset PV as 0 (Zero Light ON). The status will also be memorized during shutdown. Hold "Zero" key for 1 second to disable zeroing.

## Curve of PV TEACH Function (TEACH)

**Example:** Input signal is 0 - 10V, to display 0 - 1800.

- Enter TEACH mode and press **shift** twice to set input initial value (in-1). Input point should be 0V, and hold **shift** to read in the scrap value.
- Press **mode** to finish in-1 setting and enter DS-1. Press **shift** to set the initial value. Please enter "00000".
- Press **mode** to finish DS-1 setting and enter in-2 and press **shift**. The input point should be 10V. Hold **shift** to read in signal value.
- Press **mode** to finish in-2 setting and enter DS-2. Press **shift** to set desired display value. Please enter "01800". Then hold **mode** for 2 seconds to complete setting.



## Analog Output (D-A) Setting (Optional function)

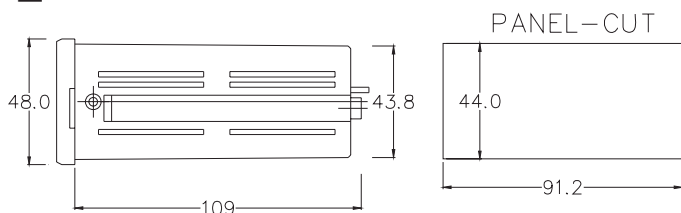
**Example:** To display 0 - 1800 with 0 - 10V output:

- Enter D-A mode and press **shift** twice to set the display value (dA-Lo) when output is 0V. Please enter "00000".
- Press **mode** to finish dA-Lo setting and enter dA-Hi. Press **shift** to set desired display value. Please enter "01800".
- Then hold **mode** for 2 seconds to complete setting.

## Specification

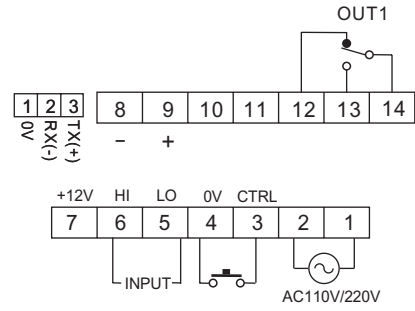
<b>Hi:</b> $PV \geq SPx, OUTx ON;$ $PV < SPx, OUTx OFF.$	<b>Lo:</b> $PV < SPx, OUTx ON;$ $PV \geq SPx, OUTx OFF.$
<b>Hi HYS:</b> $PV \geq (SPx) + (HYS), OUTx ON;$ $PV < (SPx) - (HYS), OUTx OFF.$	<b>Lo HYS:</b> $PV < (SPx) + (HYS), OUTx ON;$ $PV \geq (SPx) - (HYS), OUTx OFF.$

## Dimension

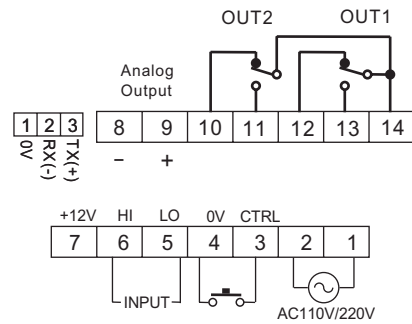


## Wiring Diagram

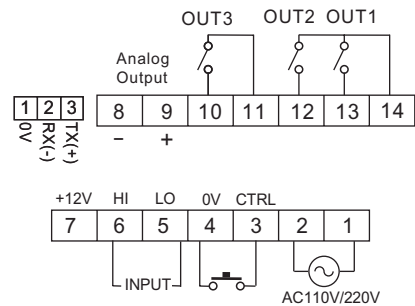
### V(I)U3-51Kxxx



### V(I)U3-52Kxxx



### V(I)U3-53Kxxx



## Specification

Power Supply	AC 110/220V, 50/60Hz
Power Consumption	11W max.
Aux. Power	100mA max. @ +12V
Display	5-digit 0.56" red LED
Output	Relay contact, 3A/250V (resistance load)
Data Memory	EEPROM, keeps at least 10 years.
Panel Dimension	94 x 48mm, panel cut-out: 92 x 44mm
Ambience Temp.	-10 ~ +50°C
Ambience Humidity	35% ~ 85% RH
Storage Temp.	-25 ~ +65°C



**Conch Electronic Co., Ltd.**

No. 3, Keji 1st Rd., Tainan 709, Taiwan

Tel: 886-6-3842111 Fax: 886-6-3840855

Website: <http://www.conch.com.tw>

E-mail: [conchltd@ms24.hinet.net](mailto:conchltd@ms24.hinet.net)