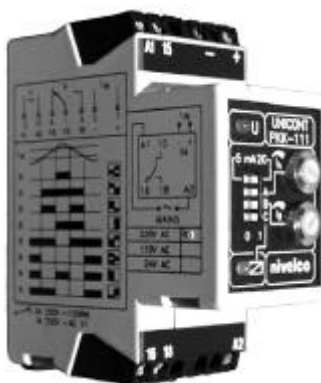


UNICONT PKK-111 and PKS-111 CURRENT-CONTROLLED SWITCHES



HiTECH Technologies, Inc.

301 Oxford Valley Road - Building 505A - Yardley, PA 19067-7706

Tel: 215. 321. 6012; Fax: 215. 321. 6067

Tech Support (Toll Free) 866-DrLevel or 888-NIVELCO

Email: info@DrLevel.com or info@hitechtech.com

Web Site: www.DrLevel.com or www.hitechtech.com

1. APPLICATIONS

The devices are capable of operation in any one of the limit switch, window switch or differential switch modes. Accordingly, their potential applications include alarm switching, current range indication and performing empty/fill-type control functions.

2. TECHNICAL DATA

Model	PKK-111	PKS-111
Connection	DIN-rail type (EN 50 0222)	11-pin type (IEC 67-1-18a)
Current input	0/5 mA or 0/20 mA; selectable	
Adjustable range	0 to 6 mA or 0 to 26 mA	
Overload capacity	max. 100mA; continuous overload	
Input impedance	132Ω (0/5 mA) 57Ω (0/20mA)	
Relay output	SPTD; 250 V AC; 5 A	
Switching delay	approx.: 1 sec	
Mechanical life	2× 10 ⁶ switching cycles	
Electrical life	10 ⁵ switching cycles	

PKK-111	PKS-111
Supply voltage	230, 110, 24 V AC; 50 to 60 Hz or 24 V DC; -15 to 10%
Consumption	2.5 VA
Ambient temperature	-10 to 55°C
Enclosure	IP 40
Electrical protection	Class II.
Weight	0.21 kg

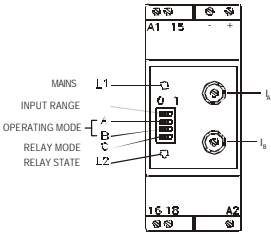
3. ACCESSORIES

User's manual

4. OPERATION

The current to be detected has to be applied as input to the "I_{in}" terminals.
In accordance with the settings, the input current is converted by the device into an output.
The settings provided on the device are:

5 mA 20	Input range selector: 0 : 0/5 mA 1 : 0/20 mA
A	Operation mode selector
B	Operation mode selector
C	Relay mode selector see diagram 1
I_A	Switching level adjustment potentiometer
I_B	Switching level adjustment potentiometer



The switching values are set by the "I_A" and "I_B" multi-turn potentiometers.

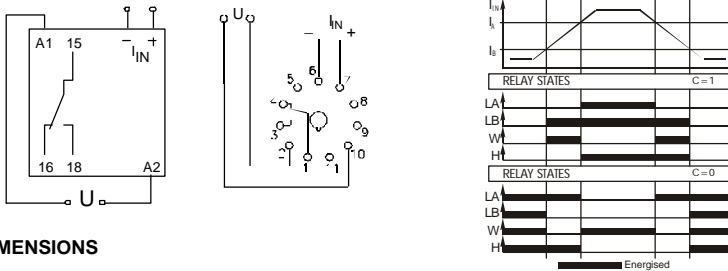
The operation mode selection is carried out by setting the "A" and "B" DIP-switches, according to table 2. The operation of the device is indicated via the "L1" green LED. The energised state of the relay is indicated via the "L2" yellow LED.

Mode	Function	Mode selector DIP-switches		Calibration
		A	B	
LA	Limit switch with	1	0	I _A
LB	0.5% hysteresis	0	1	I _B
H	Differential switch with adjustable hysteresis	1	1	I _A and I _B
W	Window switch	0	0	I _A and I _B

Operating modes:

- Selecting the **LA** or **LB** mode provides a limit switch function. These modes are equivalent, both represent the same function. The switching level in **LA** mode is set by the " I_A " potentiometer, and in the **LB** mode by the " I_B " potentiometer.
- Selecting the **H** mode provides a differential switch function. The switching levels are set by the " I_A " and " I_B " potentiometers. There is no restriction as to which level should be larger. This mode can be used e.g. for pump controls.
- Selecting the **W** mode provides a window switch function. The switching levels are set by the " I_A " and " I_B " potentiometers. There is no restriction as to which level should be larger. This mode is suitable to monitoring the current range and alarm switching, for instance:

Suppose a transmitter with 4/20 mA current output is being used, failure indication is provided by the output changing to 22 mA; further, the wiring should be monitored for no breaks as well. Now, for instance, adjust the " I_A " potentiometer to 22 mA (the failure current) and " I_B " to 2 mA (indication of circuit break). With the relay mode set to $C=0$, the relay will be actuated by any current that is outside the 2 to 22 mA range.



5. DIMENSIONS

The PKK-111 device can be mounted on DIN 46277/3 rail:	The PKS-111 device can be mounted on a 11-pin plug-and-socket type circular connector:

6. CALIBRATION

6.1. Adjustments for the limit switch mode

- Set the input range (0/5 or 0/20 mA).
- Set the required mode (LA or LB) with the "A" and "B" DIP-switches.
- Adjust the switching level with the corresponding potentiometer.

6.2. Adjustments for the differential limit switch mode

- Set the input range (0/5 or 0/20 mA).
- Set the required mode (H) with the "A" and "B" DIP-switches.
- Adjust the switching levels with the " I_A " and " I_B " potentiometers according to Figure 3.

6.3. Adjustments for the window switch mode

- Set the input range (0/5 or 0/20 mA).
- Set the required mode (W) with the "A" and "B" DIP-switches.
- Adjust the switching levels with the " I_A " and " I_B " potentiometers according to Figure 3.

7. MAINTENANCE, REPAIR

The device does not require maintenance on a regular basis. Repairs under or out of guarantee are performed at the Manufacturer.

8. STORAGE CONDITIONS

Environment temperature: -13 to +140 °F (-25 to +60 °C)

9. PERFORMANCE GUARANTEE

Since 1986, every instrument sold by **HiTECH** has been guaranteed to perform in the application it originally was engineered and recommended for. Our company policy remains the same, every product sold comes with a **written performance guarantee**.

Should the equipment be unable to perform satisfactorily in your application and we are not able to correct the problem, we will accept the instrument in return and issue full credit.

This performance guarantee is valid for 60 days. Thereafter, our standard limited two years factory warranty goes into effect.

HiTECH Technologies, Inc.

301 Oxford Valley Road - Building 505A - Yardley, PA 19067-7706

Tel: 215. 321. 6012; Fax: 215. 321. 6067

Tech Support (Toll Free) 866-DrLevel or 888-NIVELCO

Email: info@DrLevel.com or info@hitechtech.com

Web Site: www.DrLevel.com or www.hitechtech.com