

Keyboard Entry Device

Features

- 16 position raised tactile keyboard
- 6 digit LED display
- 8 line multiplexed input
- 5 line binary output
- 11 to 26 VDC operation
- NEMA 4X / IP65 Front Panel
- Screw terminal termination

Applications:

For use in communicating with any programmable controller using I/O dedicated to input and read data, make adjustments or corrections to presets and to set and read parameters.

Description:

The K/PC 9000 is a two way communications device. It has sixteen large, raised, tactile keys and a six digit, 0.55 inch high, 7 segment, LED display. It is intended to be used with standard low cost I/O modules and almost any programmable controller in use today. The K/PC 9000 enables the programmable controller user to input and read data, ask questions, make corrections and set and read parameters. Standard, low cost I/O modules are used for interface. Lines from output cards providing +3 to 27 volts DC may be used to drive the display section. Also lines to DC input cards may be used to interface the keypad. Since the keypad and the display are totally independent of each other, any desired method of reading and writing can be used, depending on the application. Special ASCII modules or shielded multiconductor cables are not required for interfacing the K/PC 9000. When properly installed in an appropriate enclosure, the gasketed bezel will insure that the keypad meets NEMA 4 environmental requirements.

Specifications:

Display: .55" high LED, six digits

Display Modes: Hexadecimal or "B code".

Decimal Point: Decimal points may be under complete software control or factory set (see How To Order).

Data Inputs: Data is entered serially.

4 bits at a time (1 digit). Input voltages 3-30 VDC. Typical current consumption @ 12 VDC. 200 mA, impedance 15K Ohms. All inputs are buffered and filtered. Standard input rate is 1 kHz. Additional filtering is user programmable. All inputs are active high.



Operation: The K/PC 9000 is a positive (true) logic device. A logic 1 or ON is always a 3 to 27 VDC signal level, whether sourcing or sinking inputs and outputs are used. Binary data is entered on the binary input lines and directed to the appropriate digit on the display by the digit select lines. The lines are filtered for noise immunity by selecting the appropriate settings on DIP switches three and four. If the decimal point is software selectable and the decimal input is activated, a decimal point will appear at the selected digit. If multiple K/PC's are used, the data could appear on any one of four displays depending on the information on the display select lines and the settings on DIP switches one and two (see table). Operating independently from the display, binary data is operated by the keypad and output to a suitable device.

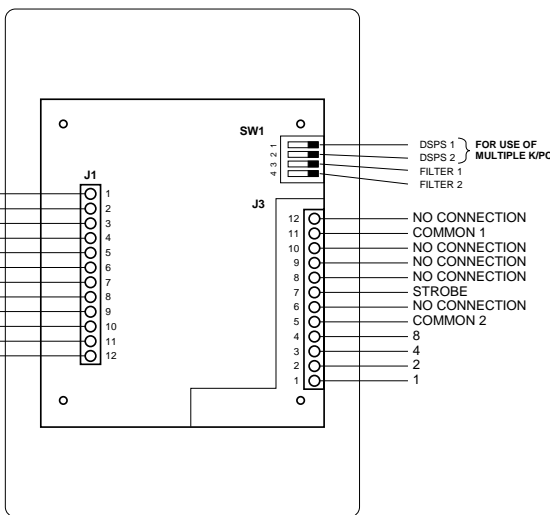
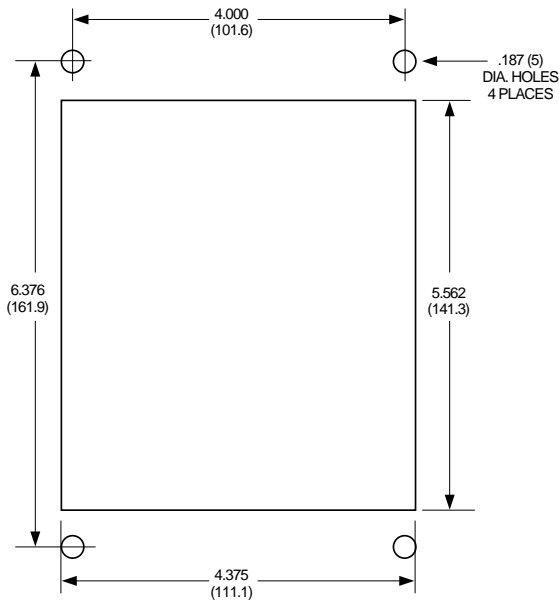
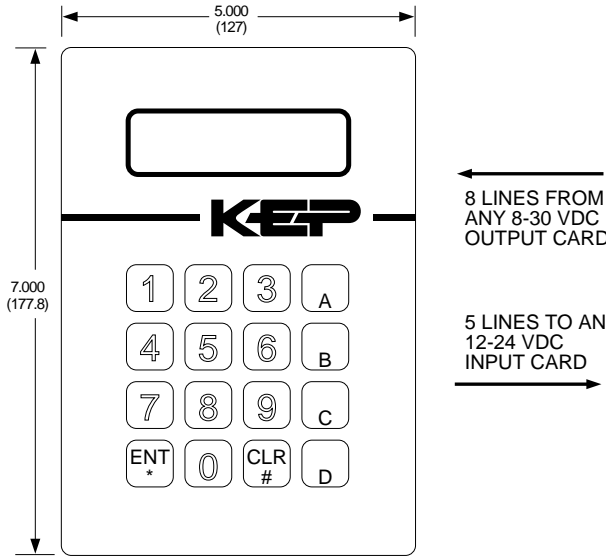
Keypad: The keypad is a switch activated diode matrix. The commons (pins J3,5 and J3,11) to the keypad should be connected to the input voltage for sourcing inputs or to ground (zero volts reference) for sinking input devices data appears on the binary output lines. In this case, the strobe line is the only indication that a zero is being entered. The binary output of the keypad is shown in the table below.

Display: The six digit display is a multiplexed device capable of a number of configurations. Once data is entered, it is displayed until it is replaced by new data or power to it is lost.

Binary Inputs: The four BCD data lines tell the display what character to display. See table below.

Digit Select Inputs: The three digit select inputs (pins J1,5-7) are used to direct the binary data to the appropriate display location. They are coded in binary from 0 to 5 (0 being the least significant or right-most digit).

Mounting:



Depth behind panel: 1.5" (38 mm)

Display Modes Table:

HEXADECIMAL		B-CODE	
Data 8421	Hex Display	Data 8421	B-Code Display
0000	0	0000	0
0001	1	0001	1
0010	2	0010	2
0011	3	0011	3
0100	4	0100	4
0101	5	0101	5
0110	6	0110	6
0111	7	0111	7
1000	8	1000	8
1001	9	1001	9
1010	A	1010	—
1011	b	1011	E
1100	C	1100	H
1101	d	1101	L
1110	E	1110	P
1111	F	1111	(Blank)

Keypad Output Table:

KEYPAD	BINARY OUTPUT	KEYPAD	BINARY OUTPUT
1	0001	9	1001
2	0010	0	0000
3	0011	A	1010
4	0100	B	1011
5	0101	C	1100
6	0110	D	1101
7	0111	CLR	1110
8	1000	ENT	1111

How To Order:

EXAMPLE: K/PC 9 7 B 7 B

Series _____

Power Supply _____
 7 = 5 VDC (regulated) +5%
 9 = 11 to 26 VDC

Display Mode _____
 H = Hexadecimal 0-9, A, b, C, d, E, F
 B = B code (STD) 0-9, -, E, H, L, P, (blank)

Decimal Point _____
 1 = XXXXX.X
 2 = XXXX.XX
 3 = XXX.XXX
 4 = XX.XXXX
 5 = X.XXXXX
 7 = Software selectable

Options _____
 4 = "Sinking" (for use with sinking input and output modules)
 B = indicates binary output version