Datakey® Electronics

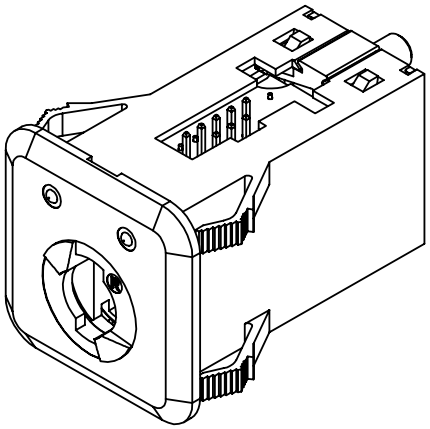
www.datakey.com ■ 800-328-8828

KC4210L

Serial Memory Keyceptacle®

The KC4210L Keyceptacle Key access device is an LED-equipped interface connector for all Datakey Electronics' serial memory Keys. The device provides the physical and electrical connection between the serial Key and host hardware. Green and red LEDs indicate the status of the Key reading/writing transaction. The Keyceptacle supports the interchangeable use of various capacity Keys and is designed to provide reliable connection over an operating life of at least 200,000 cycles. The KC4210L also contains a Last-On/First-Off (LOFO) switch that may be used to protect the host bus by ensuring that Keys have made secure contact with the access Keyceptacle before any signals are transmitted**. The KC4210L is configured for host systems that supply 5.0 volt power – contact the factory for models that work with 3.3 volt power.**

Mechanical	
Operating Torque	85 m Nm (10 ounce-inch) maximum
Operating Life	200,000 insertion/removal cycles min.
Key Stop Sustaining Torque	1.7 Nm (15 inch-pounds)
Vibration	15 G's (three axis)
Condition	2 mm Peak amplitude sinusoidal
Excitation	100 rad/sec. to 2000 rad/sec.
	No mechanical degradation.
	No contact discontinuity in excess of 1μs
	Refer to MIL-C55302 & MIL-1344
Electrical (Dielectric Strength)	
Contact Resistance	Beginning of Life: 100 mΩ
	End of Life: 500 mΩ
Terminal to Adjacent Terminal	200V
Terminal to Opposite Terminal	500V
Terminal to Mounting Panel	1500V
Environmental	
Storage Temperature	-40° C to + 105° C
Operating Temperature	-40° C to + 80° C
Relative Humidity	5% to 95% (non-condensing)
Mating Component(s)	
Keys	All Serial Memory Keys
KC4210 Hinged Cover	Consult Factory
Ordering Information[1]	
KC4210L[2]	606-0052-012A
KC4210LCC	606-0052-015A



Pin-Out Chart[3]			
Pin #	**Microwire**	**I^2C**	**SPI**
1	LED Power	LED Power	LED Power
2	Power (V_{CC})	Power (V_{CC})	Power (V_{CC})
3	Ground (V_{SS})	Ground (V_{SS})	Ground (V_{SS})
4	NC	SIZE / RST[4]	/Hold
5	Chip Select	NC	/Chip Select
6	Data In	NC	Data In
7	Serial Clock	Serial Clock	Serial Clock
8	Data Out	Serial Add/Data	Data Out
9	NC	NC	NC
10	LOFO	LOFO	LOFO

NC=No Connection

See next page for mechanical drawings and electrical schematic.

NOTES:

1: "A" suffix on part number indicates RoHS compliance.
2: The KC4210L is also available without LED indicators (see KC4210).
3: Complete Interface Specifications available at:
http://www.datakeyelectronics.com/technical_inter_specs.html
4: RST signal used on IIK Series only.

RoHS Compliant

KC4210L Series

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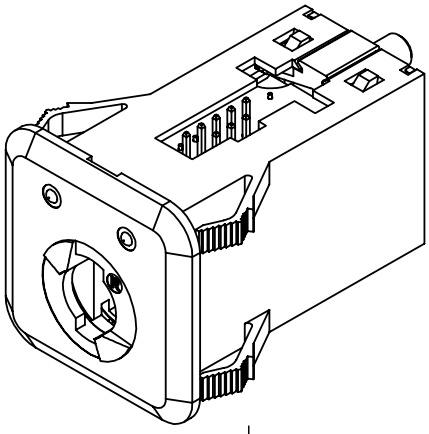
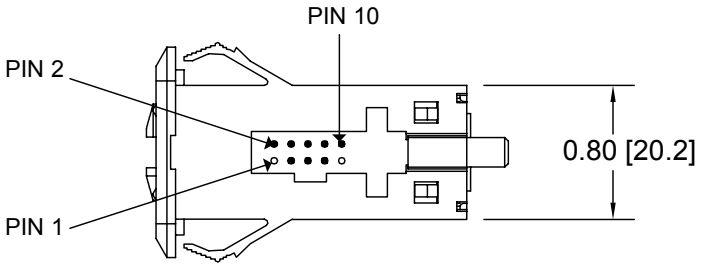
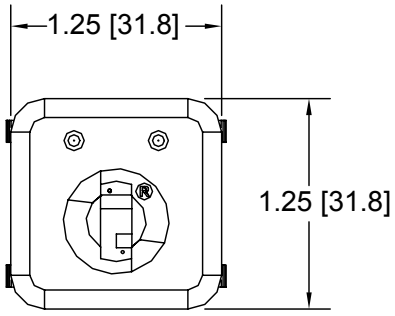
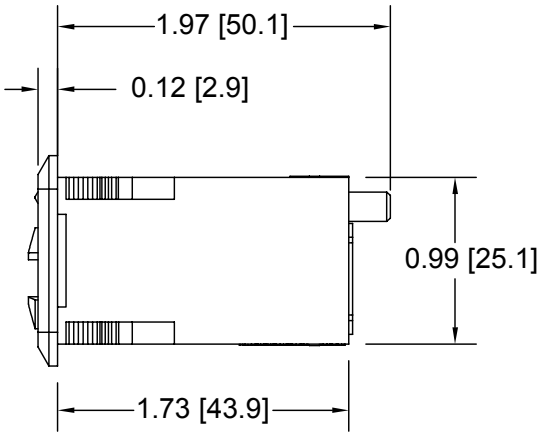
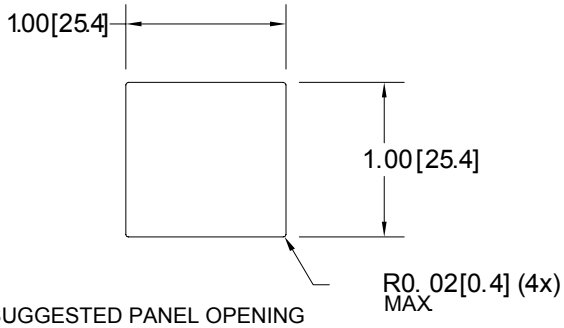


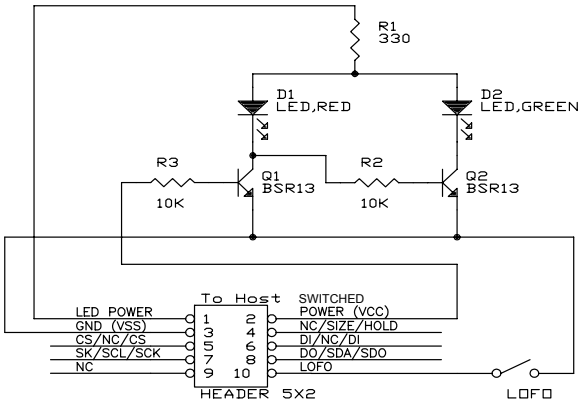








SUGGESTED PANEL OPENING



Use for all cable connectors: AMP-LATCH® Series, 0.100" [2.54] Centerline Ribbon Cable Connector.

Retaining tabs pre-trimmed for 0.060" [1.52] thick panel from factory. Panel Hole: Max panel thickness: 0.156" [3.96]. For installation instructions, contact factory.

Drawing dimensions are in inches and millimeters [mm]. Dimensions are nominal and subject to manufacturer's tolerances.

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NOTE: Internal circuitry on the KC4210L indicates the status of power applied to Keys inserted in the Keyceptacle®. The host controller will provide LED Power on Pin 1 of the connector. This 5.0 volt DC signal provides power for the operation of the LED indicators. The Switched Power signal on Pin 2 provides power to the target Key as well as controlling the operation of the red and green LEDs. When Switched Power on Pin 2 is off, the green LED will be illuminated indicating to the user that it is safe to insert or remove a Key from the Keyceptacle. The Switched Power signal is turned on when the host controller is reading or writing to the target Key. When power is applied the green LED is turned off and the red LED is illuminated. This condition indicates to the user that the target Key should NOT be removed from the Keyceptacle.

RoHS Compliant