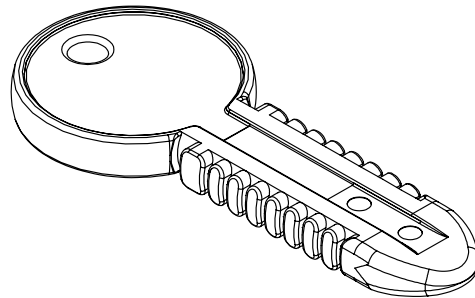
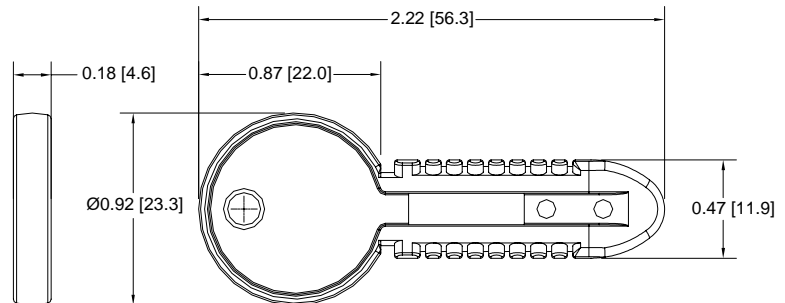


Datakey Electronics IEK Series of CryptoMemory¹ Keys incorporates the highly secure symmetric dynamic mutual authentication protocols provided by Atmel Corporation's CryptoMemory products. Encrypted passwords, mutual authentication, data encryption, and encrypted checksums provide extremely high levels of data security. Datakey Electronics' IEK Series of Keys is compliant with the Atmel 2-wire protocol and is available with user EEPROM memory capacities of 1Kbit to 256Kbit. The IEK Series features Datakey Electronics' industry-leading solid molded construction, rugged wear-resistant exterior and long-lasting contacts. These Keys interface to Datakey Electronics' standard KC4210 and KC4210PCB Keyceptacles[®] - consult factory.

Mechanical	
Contact Life	15,000 Insertions/Removal Cycles Min.
Contact Arrangement	Fully Redundant (Top:Bottom)
Key Head Shear Limit	15 Pounds
Key Twist Torque Limit	15 Inch-pounds
Electrical	
Power, Active	25 milliwatts typical at 5V
Power, Standby	500 microwatts typical at 5V
Voltage ³	2.7 to 5.5V
ESD Protection	10kV (per Std. 064-1028)
Environmental	
Storage Temperature	-40° C to + 100° C
Operating Temperature	-40° C to + 85° C
Relative Humidity	5% to 95% (non-condensing)
Memory	
Key:	Capacity:
IEK1Kb	1Kb (1,024 bits) 128 x 8
IEK16Kb	16Kb (16,384 bits) 2048 x 8
IEK64Kb	64Kb (65,536 bits) 8192 x 8
IEK256Kb	256Kb (262,144 bits) 32768 x 8
Read Cycles	Unlimited
Write/Erase Cycles	100,000 Cycles Minimum
Data Life (Storage)	10 Years Minimum
Mating Component(s)	
Panel-Mount Keyceptacle [®]	KC4210 Series
PCB Mount Keyceptacle [®]	KC4210PCB
Ordering Information ²	
IEK1Kb	611-0110-00XA
IEK16Kb	611-0111-00XA
IEK64Kb	611-0112-00XA
IEK256Kb	611-0113-00XA



For pin-out information, consult factory. Other Key head designs and customization are also available. Contact factory.



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

NOTES:

- 1: CryptoMemory is a registered trademark of Atmel Corporation and is used by permission.
- 2: "X" indicates optional color number. "A" suffix on part number indicates RoHS compliance.
- 3: **Design Recommendation:** It is recommended that all new Key/Token implementations be designed to operate with power supplies in the range of 2.7 to 3.6 volts. Although there is no immediate or certain future difficulties in the procurement of memory devices that operate with V_{cc} in the 4.5 to 5.5 volt range, it is possible the future availability of such memories may be impacted as semiconductor manufacturers continue to shrink their die geometries. Please contact the factory if you have any questions pertaining to this with your current or legacy design.

