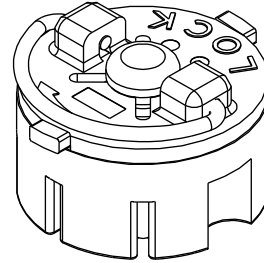
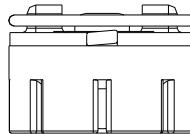
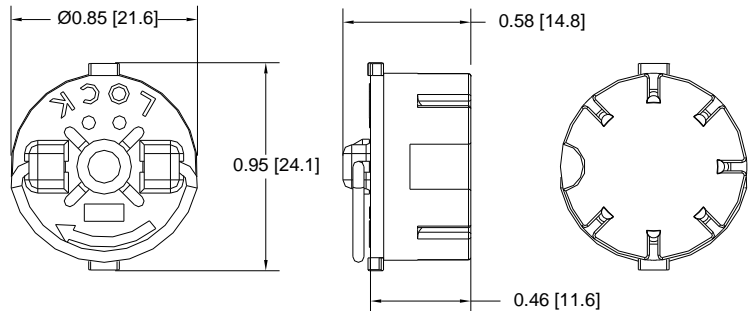


The ISP Series is a portable Plug data carrier with a non-volatile serial I<sup>2</sup>C<sup>1</sup> EEPROM memory that is sealed against moisture and other corrosive elements. Designed to perform in harsh environments, the ISP provides corrosion-resistant contacts and is resistant to static, dirt, moisture, chemicals, extreme temperatures, vibration, drop shock, and more. The ISP requires 2.7 to 5.5 volts to operate and can easily be added to new and existing systems. Small enough to carry in a pocket or on a keychain, the ISP is a convenient way to store and transfer data, such as encryption keys for use with mobile computer and communications equipment.

Mechanical	
Color	Black w/Gray Top
Weight	8.5 g (0.3 ounces) maximum
Bail Torque	1.4 Nm (12 inch-pounds) maximum
Bail Pull	67 N (15 pounds) minimum 110 N (25 pounds) maximum
Contact Life	10,000 minimum insertion/removals
Shock	Meets or exceeds MIL-STD-883F, Method 2002.4 Test Condition A
Vibration	Meets or exceeds MIL-STD-883F, Method 2007.3 Test Condition A
Electrical <sup>1</sup>	
Power, Active	25 milliwatts, typical at 5V
Power, Standby	200 microwatts, typical at 5V
Voltage <sup>3</sup>	2.7 to 5.5V
ESD Protection	12kV
Device Address	Zero (0), consult factory for options
Environmental	
Storage Temperature	-40° C to +100° C
Operating Temperature	-40° C to +85° C
Relative Humidity	0% to 95% (non-condensing)
Memory <sup>1</sup>	
Token:	Capacity:
ISP1000	1Kb (1024 bits) 128 x 8
ISP4000	4Kb (4096 bits) 512 x 8
ISP16000	16Kb (16,384 bits) 2048 x 8
ISP64000	64Kb (65,536 bits) 8192 x 8
ISP256K	256Kb (262,144 bits) 32,768 x 8
Read Cycles	Unlimited
Write/Erase Cycles	1,000,000 Minimum
Data Life	10 Years Minimum
Mating Component(s)	
KSD Receptacle	615-0004-000A
Reader/Writer	Consult factory.
Ordering Information <sup>2</sup>	
ISP1000	614-0014-000A
ISP4000	614-0004-000A
ISP16000	614-0015-000A
ISP64000	614-0016-000A
ISP256K	614-0013-000A



Refer to KSD Receptacle data sheet for pin-out information.



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

#### NOTES:

- 1: Complete I<sup>2</sup>C Interface Specification available at: [http://www.datakeyelectronics.com/technical\\_inter\\_specs.html](http://www.datakeyelectronics.com/technical_inter_specs.html)
- 2: "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<sub>cc</sub> 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.

