

# SR4310 Series

## Panel-Mount Receptacles

SR4310 series panel-mount receptacles mate with all Datakey SlimLine™, Extended SlimLine, and RUGGEDrive™ memory tokens. These receptacles are designed to keep water and other materials from penetrating the enclosure they are mounted in. They are available in three versions: an IP65-rated (splash-proof) version— SR4310SP; an IP67-rated (immersion-rated) version – SR4310IM; and IP67-rated versions with EMI reduction features – SR4310CI and SR4310EI. The SR4310CI is the latest design that utilizes an improved manufacturing process and is a direct replacement for SR4310EI receptacles. Both feature an outer shell molded using an electrically conductive material to reduce electromagnetic emissions. The SR4310EI is no longer recommended for new designs but is available for existing applications.

All Datakey SlimLine receptacles feature “gold dome” contacts that perform reliably over a wear life of at least 50,000 insertion/removal cycles and employ a wiping mechanism to remove debris or build-up on the token's contacts each time a token is inserted or removed. Also, SR4310 receptacles include a detent mechanism that contributes to token retention and gives users tactile and audible confirmation when an inserted token is fully engaged. The token/receptacle system provides a Last-On/First-Off (LOFO) contact that is used by system designers to detect when a memory token has been inserted or removed (contact ATEK Access Technologies for token detection details for RUGGEDrive memory tokens)<sup>2</sup>. SR4310 receptacles are inserted from the front of the panel and are secured from the inside using two (customer-supplied) M3 screws allowing for easy mounting and post-installation tamper evidence. Additionally, a gasket is provided with each receptacle for sealing.



### MECHANICAL

|                              |                                         |
|------------------------------|-----------------------------------------|
| Operating Life <sup>4</sup>  | 50,000 Insertion/Removal Cycles Minimum |
| Insertion Force <sup>4</sup> | 400 gf Minimum / 2 kgf Maximum          |
| Removal Force <sup>4</sup>   | 300 gf Minimum / 2 kgf Maximum          |
| Mass (with gasket)           | ~14 grams                               |

### ELECTRICAL

|                    |                             |
|--------------------|-----------------------------|
| Contact Resistance | Beginning of Life: < 100 mΩ |
|                    | End of Life: < 500 mΩ       |

### ENVIRONMENTAL

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Storage Temperature   | -40°C to +100°C                                                   |
| Operating Temperature | -40°C to +85°C                                                    |
| Relative Humidity     | 5% - 95% (non-condensing)                                         |
| Freezing Rain         | MIL-STD-810H, Method 521.4, Glaze Ice                             |
| Blowing Dust          | MIL-STD-810H, Method 510.7, Proc. I                               |
| Blowing Sand          | MIL-STD-810H, Method 510.7, Proc. II                              |
| Altitude              | MIL-STD-810H, Method 500.6, Proc. I & II<br>≤40,000 ft (12,192 m) |
| Mechanical Shock      | MIL-STD-810H, Method 516.8, Proc. I                               |
| Vibration             | MIL-STD-810H, Method 514.8, Proc. I                               |

### MATING COMPONENT(S)

|                                                               |                                                                                                                              |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Tokens                                                        | All SlimLine and RUGGEDrive Memory Tokens                                                                                    |
| Connector                                                     | Mates with 0.100" IDC Ribbon Cable Connectors                                                                                |
| Threaded Fasteners                                            | M3 x 0.5 (2.2mm thread depth minimum)<br>(3.3mm typical)<br>Max Torque Rating: 5.5 in-lbf                                    |
| Gasket Material (receptacle provides over-tighten protection) | Temperature-Resistant Silicone (SR4310SP/SR4310IM versions)<br>Electrically Conductive Silicone (SR4310CI/SR4310EI versions) |
| Gasket Thickness                                              | 0.032" Nominal                                                                                                               |

### ORDERING INFORMATION<sup>1</sup>

|                     |                                                     |
|---------------------|-----------------------------------------------------|
| SR4310SP (IP65)     | 606-0067-100A                                       |
| SR4310IM (IP67)     | 606-0067-101A                                       |
| SR4310CI (IP67/EMI) | 606-0067-103A                                       |
| SR4310EI (IP67/EMI) | 606-0067-102A<br>(Not recommended for new designs.) |

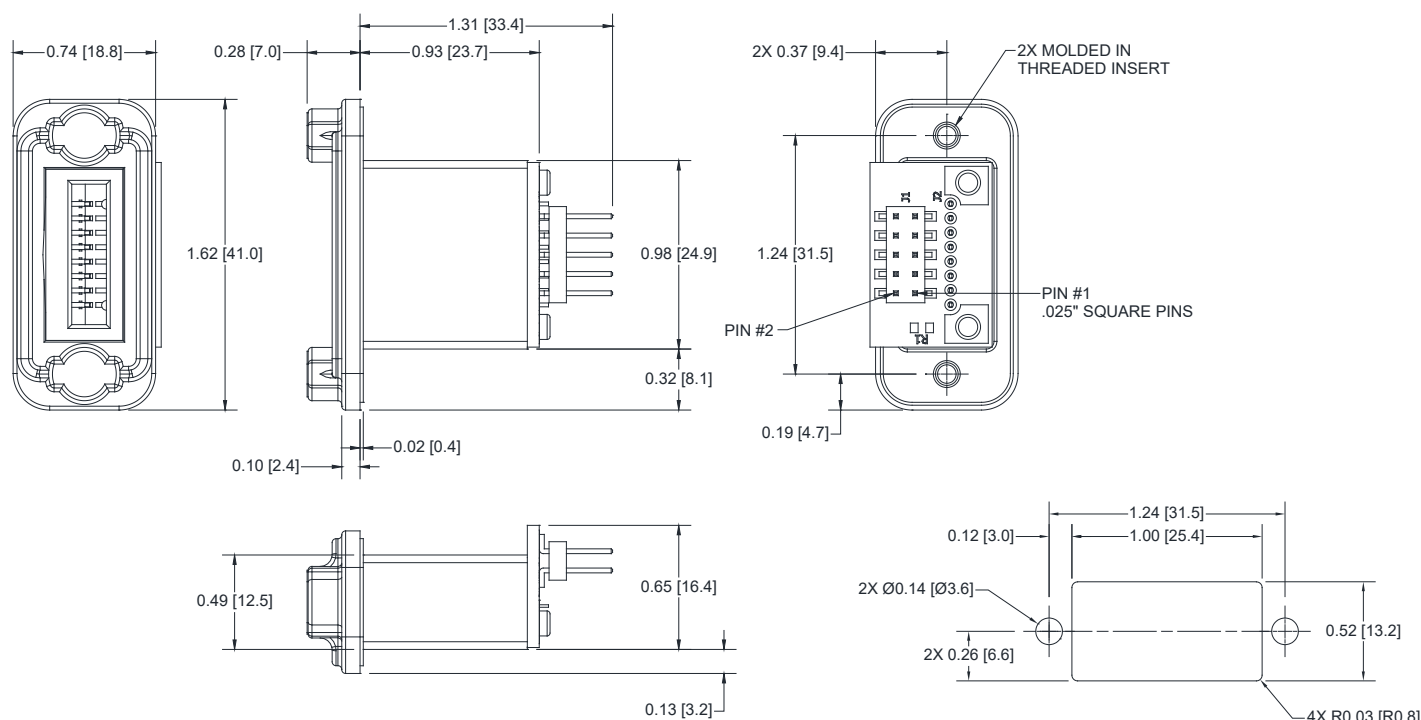
- 1: "A" suffix on part number indicates RoHS compliance. See CE declaration below for details.  
2: Customers must design to meet Datakey interface specifications to provide for future memory device compatibility. Interface specifications available at [datakey.com](http://datakey.com)  
3: RST signal used on IIT Series only.  
4: Applications where a new token is used each time can reduce retention force prematurely.

#### NOTES:

Conforms with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011, and as amended by Directive 2015/863/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



# SR4310 Series



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

## Panel Cut-Out / Hole Pattern Recommendation:

The above recommended panel cut out (1.00" x 0.52") is for standard 10 gauge (0.135" / 3.43 mm) material thickness panel. Cut-out dimensions may need to be modified for different panel thicknesses to properly account for "tipping in" PCB during installation.

| PINOUT CHART <sup>2</sup> |                          |                          |                          | RUGGEDRIVE™ LINE         |          |           |
|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------|-----------|
| Pin #                     | Microwire                | I <sup>2</sup> C         | SPI                      | DFX (SPI)                | DFX (SD) | UFx (USB) |
| 1                         | NC                       | NC                       | NC                       | NC (chassis option)      | NC       | NC        |
| 2                         | Power (V <sub>cc</sub> ) | Power (V <sub>cc</sub> ) | Power (V <sub>cc</sub> ) | Data Out (DO)            | DAT0     | +5V       |
| 3                         | Ground (GND)             | Ground (GND)             | Ground (GND)             | /Chip Select (/CS)       | DAT3     | GND       |
| 4                         | Do Not Use               | Size / RST <sup>3</sup>  | Do Not Use               | Ground (GND)             | NC       | NC        |
| 5                         | Chip Select (CS)         | Do Not Use               | /Chip Select (/CS)       | Ground (GND)             | VSS      | NC        |
| 6                         | Data In (DI)             | Do Not Use               | Data In (SI)             | Power (V <sub>cc</sub> ) | VDD      | DP        |
| 7                         | Serial Clock (SK)        | Serial Clock (SCL)       | Serial Clock (SCK)       | Serial Clock (SCLK)      | CLK      | DM        |
| 8                         | Data Out (DO)            | Serial Add/Data (SDA)    | Data Out (SO)            | Data In (DI)             | CMD      | NC        |
| 9                         | Do Not Use               | Do Not Use               | /Hold                    | Reserved                 | DAT1     | NC        |
| 10                        | LOFO                     | LOFO                     | LOFO                     | Reserved                 | DAT2     | NC        |

NC = No Connection

221-0149-000 Rev. L 6/26

View our full product line at [www.datakey.com](http://www.datakey.com)

**ATEK Access Technologies**

210 10<sup>th</sup> Avenue NE  
Brainerd, MN 56401 USA

Telephone:

1-800-523-6996

+1-218-829-9797

[www.atekaccess.com](http://www.atekaccess.com)

**ATEK** Access  
Technologies

Access the power of technology.