Datakey® Electronics

www.datakey.com ■ 800-328-8828

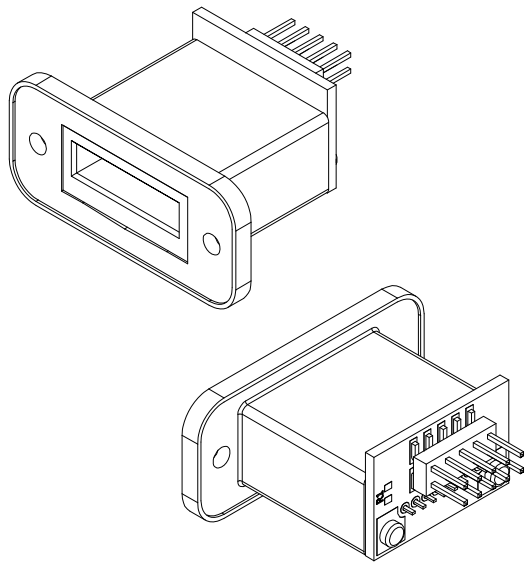
GR4410 Panel-Mount Series

Enhanced Protection Receptacle

The GR4410 series receptacles are "behind-panel" mount interface connectors that mate with Datakey Electronics' GammaSafe™ memory tokens. The GR4410 receptacles also accept SlimLine™ and Extended SlimLine™ tokens, allowing OEMs to use low-capacity GammaSafe™ memory tokens for applications like product authentication and limit-use, while also accepting larger-capacity SlimLine™ tokens for applications like firmware updates or the transfer of logged data—all through the same receptacle.

The GR4410 series is designed with custom mounting features and details to provide enhanced water protection. The receptacle is available in a splash-proof (IP65) version (the GR4410SP) and an immersion rated (IP67) version (the GR4410IM). It is also available in an IP67-rated version (the GR4410EI) with the outer shell molded in a highly conductive material to provide EMI reduction through both reflection and absorption.

As with all Datakey Electronics SlimLine™ and GammaSafe™ token receptacles, the GR4410 features corrosion-resistant, gold dot contacts that perform reliably over a wear life of at least 50,000 insertion/removal cycles. The receptacle includes a detent mechanism that gives users tactile confirmation when an inserted token is physically engaged. The receptacle features two non-threaded holes for mounting—allowing for a variety of customer-supplied fasteners to be used. A gasket is provided with each receptacle for sealing. If a PCB-mount receptacle is desired, please see the GR4220PCB and GR4220SMT receptacles.



NOTES:

1: "A" suffix on part number indicates RoHS compliance.
2: Customers must design to meet Datakey Electronics' Interface Specifications to provide for future data carrier compatibility. Interface Specifications typically available at http://www.datakeyelectronics.com/technical_inter_specs.html. Contact the factory for preliminary versions.
3: GR4000 receptacles are compatible with both GammaSafe™ and SlimLine™ SPI memory tokens.
4: The GammaSafe™ memory token does not utilize the /Hold line, therefore Pin 9 can be left unconnected in cases where only GammaSafe tokens are used. For SlimLine™ SPI memory tokens, Pin 9 can be connected to the /Hold line.

Mechanical	
Operating Life	50,000 insertion/removal cycles minimum
Insertion Force	400 grams minimum / 2 Kg maximum
Removal Force	300 grams minimum / 2 Kg maximum
Vibration	MIL-STD 810F, Test Method 514.5 15Gs (three axes) operating
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)
Salt-Fog	MIL-STD 810F Method 509.4 Proc. 1
Mating Component(s)	
Tokens	All GammaSafe™ and SlimLine™ Tokens
Connector	Mates with AMP-LATCH® Series, 0.100" Centerline Ribbon Cable Connector
Gasket Material (Receptacle provides positive over-tighten protection.)	Temperature-Resistant Silicone (GR4410SP/GR4410IM Versions) Electrically Conductive Silicone (GR4410EI Version)
Gasket Thickness	0.032" (0.813 mm), nominal
Ordering Information[1]	
GR4410SP (IP-65)	606-0077-000A
GR4410IM (IP-67)	606-0077-001A
GR4410EI (IP67/EMI)	606-0077-002A

RoHS Compliant

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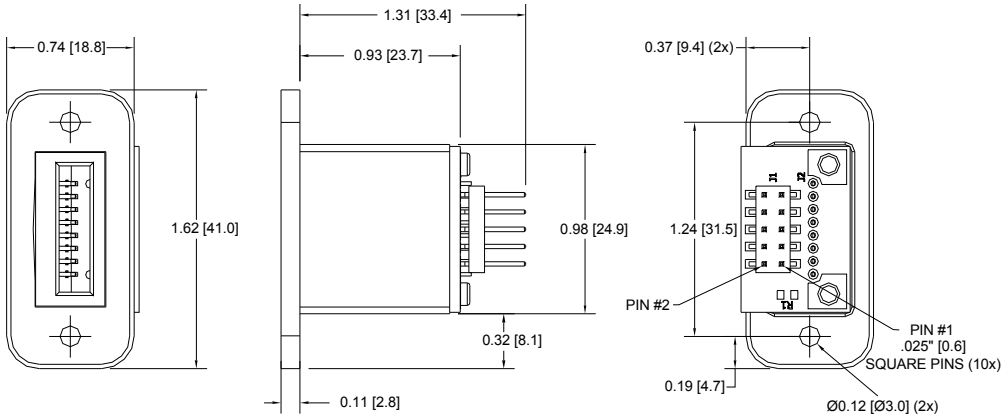

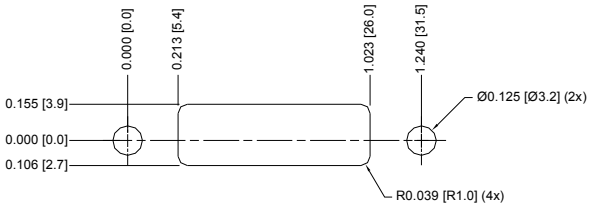

Installation Recommendation: For best water drainage, it is recommended that the receptacle be installed with the output connector above the housing as shown above.
Note: Installation hardware is supplied by the customer.

Panel Cut-Out / Hole Pattern Recommendation: The above recommended panel cut out is for standard "behind-panel" mounting of the GR4410 receptacle. Contact factory for further details.

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

Pin-Out Chart[2]	
PIN #	**SPI[3]**
Pin 1	NC
Pin 2	Power (V_{CC})
Pin 3	Ground (GND)
Pin 4	Do Not Use
Pin 5	/Chip Select (/CS)
Pin 6	Data In (SI)
Pin 7	Serial Clock (SCK)
Pin 8	Data Out (SO)
Pin 9	/Hold or NC[4]
Pin 10	LOFO

NC = No Connection