Bar Series Receptacles

With Flat Targets

Datakey®

The power of memory. Secured.

Bar receptacles mate with all Bar memory tokens (see Bar token datasheets for more information). The receptacles are designed to mount on the surface of an OEM device (enclosure, housing, panel, etc.) with nothing extending into the device. Spring probes may be used to make contact with the flat targets on the bottom of the receptacle. This mounting method minimizes the amount of interior space required to integrate the receptacle into the OEM device. The Bar receptacles are available with or without an adhesive gasket. The receptacle is secured using two screws.

Designed for use in the most challenging environments, the Bar series meets several MIL-STD-810 specifications, provides an intuitive slide-in/slide-out operation, and features an open design for easy in-field cleaning. The Bar receptacle also incorporates internal design features to reduce electromagnetic emissions. The receptacle also features a retention pin that provides tactile feedback when the token is fully inserted and helps keep the token firmly in place during operation—standing up to the most demanding shock and vibration requirements.

MECHANICAL	
Operating Life	25,000 Insertion/Removal Cycles Min.
Vibration[5]	MIL-STD-810F, Method 514.5, Proc. I Figure 514.5C-17 (Operating[6])
Shock[5]	MIL-STD-810F, Method 516.5, Proc. I **Operating**[6]: 40 *g*, 15-23 ms – Typical **Token Retention**: >200 *g*, 3 ms – Typical (token fully retained in receptacle)
Acceleration[5]	MIL-STD-810F, Method 513.5, Proc. II 10 *g*, All Axes (operating[6])
ELECTRICAL	
Contact Resistance	< 100 mΩ
	EMI Reduction Circuitry in Tokens
ENVIRONMENTAL	
Storage Temperature	-40°C to +100°C
Operating Temperature	-40°C to +85°C
Relative Humidity	5% to 95% (non-condensing)
Immersion[2]	MIL-STD-810F, Method 512.4 Proc. I Exceeds 1 m/30 min (IP67) - Non-operating
Salt-Fog	MIL-STD-810F, Method 509.4 Proc. I
Blowing Dust	MIL-STD-810F, Method 510.4 Proc. I
Blowing Sand	MIL-STD-810F, Method 510.4 Proc. II; Helicopter Over Unpaved Surface
Freezing Rain	MIL-STD-810F, Method 521.2 Proc. I; Glaze Ice
Altitude	≤ 40,000 ft (12,192 m)
Solar Radiation	MIL-STD-810F, Method 505.4, Proc. II
Other	Contact Factory for Further Information on Additional Qualification Tests (including thermal shock, fungus, & chemical resistance)
MOUNTING COMPONENT(S)	
Threaded Fasteners	(2) #4-40 Thread, 0.17" (4.3 mm) Max. Thread Engagement, Max. Torque Rating: 8.0 in-lbf (90 N-cm)
Gasket (where included)	Adhesive Gasket – 0.015" (0.38 mm) Nominal Thickness
Mating Connector[2]	Spring Probe to 0.100" (2.54 mm) Diameter Flat Target
MATING COMPONENT(S)	
Memory Tokens	LCB, ISB, SSB Series of Bar Memory Tokens
ORDERING INFORMATION[1]	
BRFG BRFN	606-0068-002A (flat targets, gasket) 606-0068-003A (flat targets, no gasket)

1: "A" suffix on part number indicates RoHS compliance.
2: No soldering to the flat targets allowed if immersion required.
3: Customers must design to meet Datakey interface specifications to provide for future memory device compatibility. Interface specifications available at datakey.com.
4: Consult ATEK for more information.
5: Specification for receptacle with mated token.
6: No discontinuities greater than one microsecond allowed.

NOTES:
Conforms with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

CE

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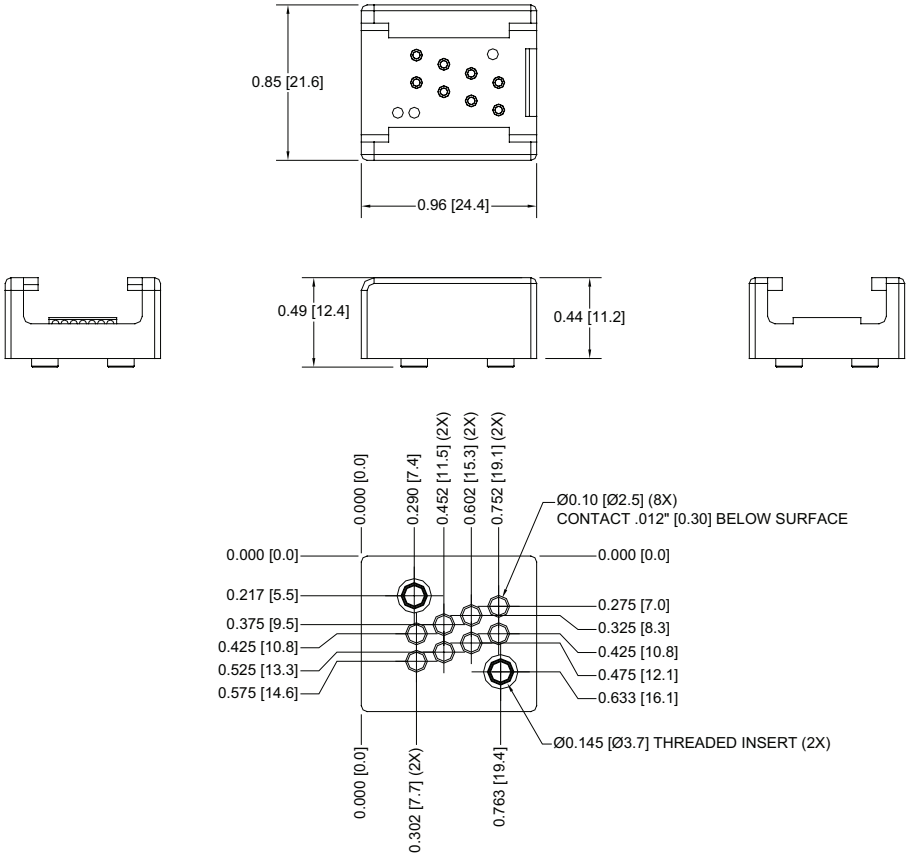
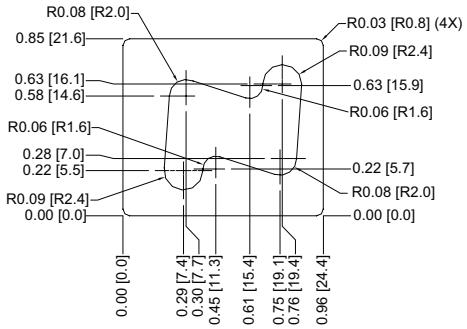


TOP VIEW OF GASKET PATTERN
(SIDE FACING RECEPTACLE)

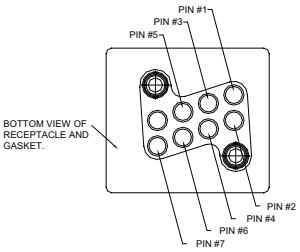


MOUNTING SURFACE REQUIREMENTS: ⏥ 0.005 AND 32

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

PIN-OUT CHART			
Pin #	Microwire	I²C	SPI
1	LOFO	LOFO	LOFO
2	Ground (GND)	Ground (GND)	Ground (GND)
3	Power (V_{cc})	Power (V_{cc})	Power (V_{cc})
4	Chip Select (CS)	SIZE	/Chip Select (/CS)
5	Serial Clock (SK)	Serial Clock (SCL)	Serial Clock (SCK)
6	Data In (DI)	NC	Serial Data In (SI)
7	Data Out (DO)	Serial Add/Data (SDA)	Serial Data Out (SO)

RECEPTACLE PIN-OUT



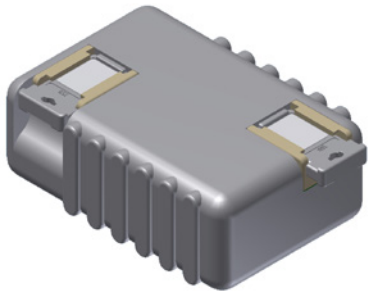


Figure A: Flush Mounting Ideas

Installation Recommendations: The Bar receptacle is designed to be mounted on the surface of an OEM device (enclosure, housing, panel, etc.). It is also possible to flush-mount the bar receptacle (and token head if desired) by incorporating it into a "slot" or "groove" as shown in Figure A. The OEM can provide for a larger slot that allows the internal spring probes to protrude through to the flat targets of the receptacle. If the housing is conductive, care should be taken by the OEM such that the internal spring probe pins do not come in contact with the housing. An adhesive gasket (included) is used along with (2) #4-40 threaded inserts (screws provided by the OEM) to secure the receptacle to the OEM device. Contact ATEK for more information.

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