

## Vandal Resistant, Waterproof Magstripe Card Reader

### SideWinder™



Brush Industries' SideWinder is a hardened, dust and waterproof magnetic stripe card reader designed for harsh environment applications such as carwashes, outdoor vending and access control, essentially anywhere durability and reliability is a must. This unique reader features a machined, hard anodized aluminum case for robust vandal resistance. There are no plastics used for our housing. The SideWinder also boasts an impressive IP67 dust and waterproof per IEC 60529 certification thus prohibiting dust and water/moisture from entering the reader housing. As part of this certification testing, the reader is subjected to immersion in water to one meter and must function normally afterwards. The reader also allows for several convenient ways to integrate the SideWinder reader including TTL, RS232, USB, USB-HID (Human Interface Device) and USB-KBE (Key Board Emulation).

We accomplish this one-of-a-kind reader through our ingenious patented curved swipe rail design. Typical magnetic stripe readers have the magnetic head mounted on a spring to provide the pressure against the card when reading the magnetic stripe. Our clever double-arched swipe rail uses the flexing of the card to apply the perfect amount of pressure to magnetic head, which is mounted in the apex of the two arches. This design allows the head to be in a fixed position rather than on a spring. Thus, there are no moving parts, which enables us to completely encase all the electronics with epoxy. The result is a solid metal housing that can withstand a baseball bat and is both dust and waterproof. Another important result of this design is that any nefarious effort to infiltrate the housing will render the reader useless, making it PCI compliant.



### SideWinder Features and Benefits

- Dust and waterproof patented design will last longer than inexpensive plastic readers
- Hardened aluminum, vandal resistant case will endure the even the harshest environments
- PCI Compliant for improved payments integrations
- Reliable bi-directional card reading up to three tracks
- Reads encoded data that meets ISO 7811 standard
- Supports cards size that meet ISO 7810 and 7811 standards
- Magnetic head reads up to three tracks of card data
- Available in RS232, USB, USB-HID, USB-KBE and TTL Interfaces

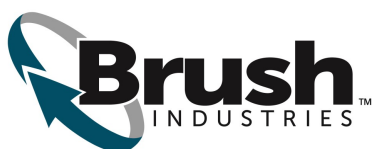
### Drop-In Replacement to Existing Readers

The Sidewinder can replace many IDTech, Magtek, Hamilton, and IBC models of card readers.

Note: Brush Industries and the SideWinder credit card reader are not associated with or endorsed by IDTech, Magtek, Hamilton or IBC. All names and products mentioned above are trademarks or registered trademarks of their respective companies and manufacturers. Not all readers can be replaced. Contact us for details about your specific reader model.

### Specifications:

	Interfaces	
	RS232, USB, USB-HID and USB-KBE	TTL
Dimensions	4.4" L X 2.0" W X 1.35" H	4.4" L X 2.0" W X 1.35" H
Weight	16 oz.	14 oz.
Electrical: Power Requirements	Operating Voltage from 4.0 V to 20.0 V (500mW) Note: RS232 requires external power supply	Operating Voltage from 2.7 V ~ 5.5 V (typical 3.3 V)
Reading Method	Two-frequency Coherent Phase (F2F)	Two-frequency Coherent Phase (F2F)
Message Format	ASCII	Strobe and Data signal
Operating Temperature	-34 degrees C to 55 degrees C or -30 F to 131 degrees F	-34 degrees C to 55 degrees C or -30 F to 131 degrees F
Storage Temperature	-35 degrees C to 70 degrees C or -31 degrees F to 158 degrees F	-35 degrees C to 70 degrees C or -31 degrees F to 158 degrees F
Power Consumption	RS232 :- 4V to 20VDC, 500mW USB, USB-HID, USB-KBE :-5V, 100mA ~ 150mA	Operating - 3.0 mA, Standby - 80 µA
Media Thickness	.68 mm Min and .84 mm Max (.0268" to .0330")	.68 mm Min and .84 mm Max (.0268" to .0330")
Swipe Speed	4 to 40 inches per second, Bi-Directional	4 to 40 inches per second
Cable Length	1524 mm (60 in. Standard)	508 mm (20 in. Standard)
Reading Track Width	1.4 mm (.055")	1.4 mm (.055")
Output Voltage	Standard RS232 and USB 2.0	High Level VOH 0.75 VDD - Min (VDD 3.3 V) Low Level VOL 0.125 VDD - Max (VDD 3.3 V)
Water and Dust Ingress Protection IP Rating	Temporary Immersion and Dust Tight, IP67 Rating Waterproof per IEC 60529	Temporary Immersion and Dust Tight, IP67 Rating Waterproof per IEC 60529
Media Formats	Magnetic Stripe: ISO 7811, AAMVA, ANSI, CDL	Magnetic Stripe: ISO 7811, AAMVA, ANSI, CDL
Reference Standards	ISO 7811, 7810 and IEC 60529	ISO 7811, 7810 and IEC 60529
Head Life	1,000,000 passes minimum	1,000,000 passes minimum
Hard Anodizing Finish	MIL-A-8625 Rev. F, Type III, Class 2	MIL-A-8625 Rev. F, Type III, Class 2
Humidity Storage	10% to 95% Non-Condensing	10% to 95% Non-Condensing
Static Electronic Discharge (ESD) - Human Body Mode (MIL-STD883C Method 3015.7)	Min - 2000V - Class 1	Min 2000V - Class 1



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