



SealISO Single Port Ruggedized Inline USB Isolator Cable (UL Recognized)

Part: ISO-1R | **Model:** SealISO Rugged USB Isolator

The SealISO™ ISO-1R is a single-port, ruggedized inline USB isolator cable that offers a simple method of protecting host and field equipment from damaging transients and surges commonly found in commercial, industrial and medical environments. The ISO-1R is UL Recognized, in accordance with EN60601-1 3rd Edition, and protects both the data and power lines with 4 kV of medical-grade isolation between the host control system and connected USB equipment.

The ISO-1R utilizes Sealevel's expertise in military-grade designs by incorporating a ruggedized, TPE overmolded cable "bump" that improves the reliability and durability in medical, industrial and mobile applications. The isolator is essentially a 6 foot, ruggedized USB cable extender. The "bump" includes an integrated loop for convenient hanging or mounting. The host connector is a Type A right-angle USB connector. The other end has a high-retention Type A Female USB connector that helps prevent accidental cable disconnections.

The ISO-1R is USB bus powered, eliminating the need for external power. The efficient DC/DC design allows energy transfer over the isolation barrier. The isolator provides up to 300 mA to a downstream USB device when connected to a standard 500 mA USB port. Additionally, the isolator provides a full 500 mA to a downstream device when connected to a USB port capable of sourcing 1 A, or greater.

Supported in Microsoft Windows, Linux, and other USB aware operating systems, the ISO-1 requires no separate drivers and is easy to install. Simply plug the isolator into an available USB port with the included cable, and it is automatically recognized as a generic USB hub device. The ISO-1 is a USB 2.0 compatible device connecting to the host over a high-speed link and features full-speed (12 Mbps) data rates between the downstream USB device.

Standard operating temperature range is -20°C to 60°C and extended temperature ranges are optional. If you need a USB isolator with removable cables, see the ISO-1. If you need an OEM USB isolator to integrate into your application, see the ISO-1-OEM.

Note: This item is intended for OEM applications and a minimum order quantity (MOQ) may apply. For low volume applications and testing, please use the ISO-1 or ISO-1-OEM versions. Please contact your sales representative with any questions.

Features & Specifications

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Features

- Protects host and field equipment from damaging surges and transients
- UL Recognized in accordance with EN60601-1 3rd Edition requirements
- Features medical-grade 4 kV isolation, data and power
- Powered by USB host connection; supports energy transfer with isolation
- Maximum of 1.1 A output current when connected to a high-power USB port
- Provides 300 mA to downstream USB devices when connected to standard 500 mA USB port
- Provides 500 mA to downstream USB devices when connected to 1 A USB port
- USB 2.0 compatible device supports full-speed 12 Mbps operation
- Supported in Microsoft Windows, Linux and other USB aware operating systems
- Ruggedized construction using molded connectors with overmold “bump” in the cable design
- Total cable and device length of 72 inches
- Compliant with CE, FCC, RoHS and WEEE directives

Specifications

Family	SealSO
Certifications	EN60601-1 3rd Edition, FCC, CE
Communication Chip	USB Hub
Dimensions	Overmold: 4.0" (L) x 2.0" (W) x 1.1" (H) – 72" Overall Cable Length
Humidity Range	10 – 90% Relative Humidity, Non-Condensing
Host Interface(s)	USB
Max Data Distance	5 M
Max Data Rate	12 Mbps (Device Connection)
Operating Temperature	-20°C to 60°C (-4°F to 140°F)
# of Ports	1
Power Requirement	USB +5V @ 200 mA (Max)
RoHS Compliant	Yes
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Upstream Isolation	4 kV Isolation
USB Specification	2.0 Compatible (Host Connection)