

Updated! Canary Uni-Directional Data Security Diodes

Provide:

- **One-Way, Air-Gapped Data Forwarding** ▪ **Reversed Transmissions Blocked** ▪
- **Auto-Negotiation + Auto-Cross UTP Connection** ▪ **9 – 48 VDC Power Option** ▪
- **"We Deliver Data Assurance and Increased Customer Confidence!"** ▪

Canary Gigabit Uni-Directional Data Security Diodes, fully evaluated & **NCDSMO – Listed**, help defend against a broad range of external, Cross-Domain and insider cyber threats that can escape common security applications to reveal or corrupt sensitive information & make mission-critical Data Services non-available.

Protect secure servers and sensitive data from compromise. Data Security Diodes stand guard between domains where un-restricted, two-way communications increases risk of penetration, malicious attack and data loss.

Application 1: Canary Gigabit **GT-10SD** Data Security Diodes, **NCDSMO – Listed**, forward information originating from an *un-secured* open source to a restricted High-Security destination. Simultaneously, they *optically isolate* the data path to stop all return-path transmissions and completely block the reverse transmission of sensitive information.

Application 2: Position the Listed Canary Data Security Diode to optically isolate a secured, trusted, information source and *selectively forward* authorized data to weakly protected *insecure* lower domain destinations.

The partitioned data path *shields the* Secure Source from hidden viruses, Trojans, malicious programs or other intrusion attempts and prevents the corruption or unintended release of critical data, or its loss and non-availability.

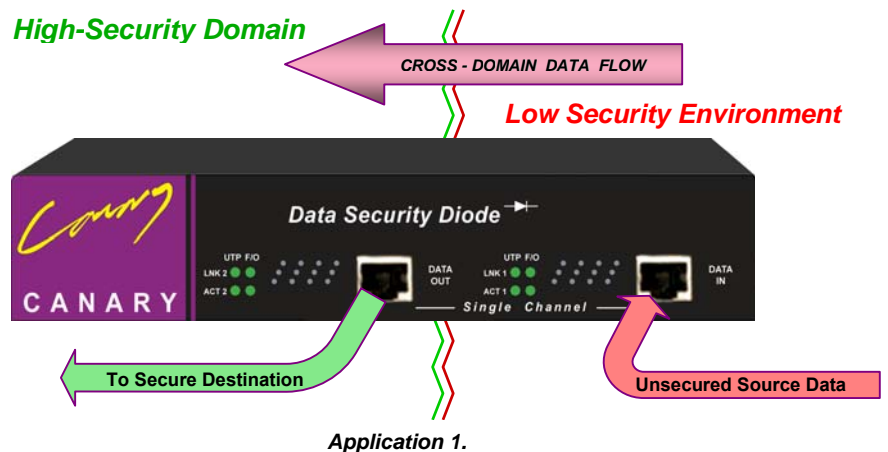
Local Diode/Host UTP connections are pseudo full-duplex. However bi-directional full-duplex traffic is not internally forwarded between Diode input and output ports. Flow-Control, IP acknowledgements, and CRC error correction are completely disabled.

Diode variants with **Variable [-V]** Input Power, enables flexible **9-48 VDC** Power choices; and **Conformal Z-Coating [-Z]** offer Environmental Hardening and reduced Tin-Whisker effects.

Another defensive layer for your critical data, Canary Data Security Diodes easily "*Deliver increased confidence and peace of mind!*"

GT-10SD • NCDSMO - Listed

Gigabit UTP to UTP Single-Point Data Diodes



▪ Plug-and-Go UTP Connections:

Configure your application to run via UDP. Connect the *un-secure* device to the Gigabit **GT-10SD Security Diode** "Data-In" port; then simply connect the *Security Diode* "Data-Out" port to the Secure Domain Host for restricted, optically isolated, one-way data transmission (**Application 1**). Reverse the connection scheme for **Application 2**.

▪ Flexible, Secure Network/Host Configurations:

Low to High: Forward information to a Higher Security domain while blocking the un-authorized release of sensitive data in the reverse direction;

High to Low: Restrict authorized user access. Maintain System and Data Security, Integrity and Availability while allowing the limited export of selected information to lower security-level destinations.

▪ Hardwired Immunity from External Software threats:

Canary Gigabit **GT-10SD Data Security Diodes** execute their key functions in hardware. With tamper-resistant cases, there is no vulnerable software, firmware, memory or buffers that can be exploited to attack and surreptitiously alter or disable Diode Uni-Directional operation.

Using UDP or similar protocol over a point-to-point link eliminates the need for normal transmission acknowledgments.

Control physical access to your Canary *Data Security Diodes* and their cable connections to thwart unauthorized access and safely deliver critical data where needed – *Easy, Secure, Information Availability!*

Canary Communications

Main Features:

Interfaces – Local Connections:

- GT-10SD and GT-10SD-V: Two 1000BASE-T (RJ-45) Ports
- GT-10SD-VZ: Same as above
- GT-10SD-VZ: **Z & VZ** ~ include **Conformal Z-Coating** for environmental hardening and Tin-Whisker resistance

Networking – Local User Connections:

- 1000BASE-T: Auto-negotiation and Auto-crossover enable half/full duplex Ethernet Diode Links with *local* Source and separately, with *remote* Destination equipment.



Management;

- No management reporting or access to internal functions
- No provision for error handling/reporting

Mechanical & Environmental:

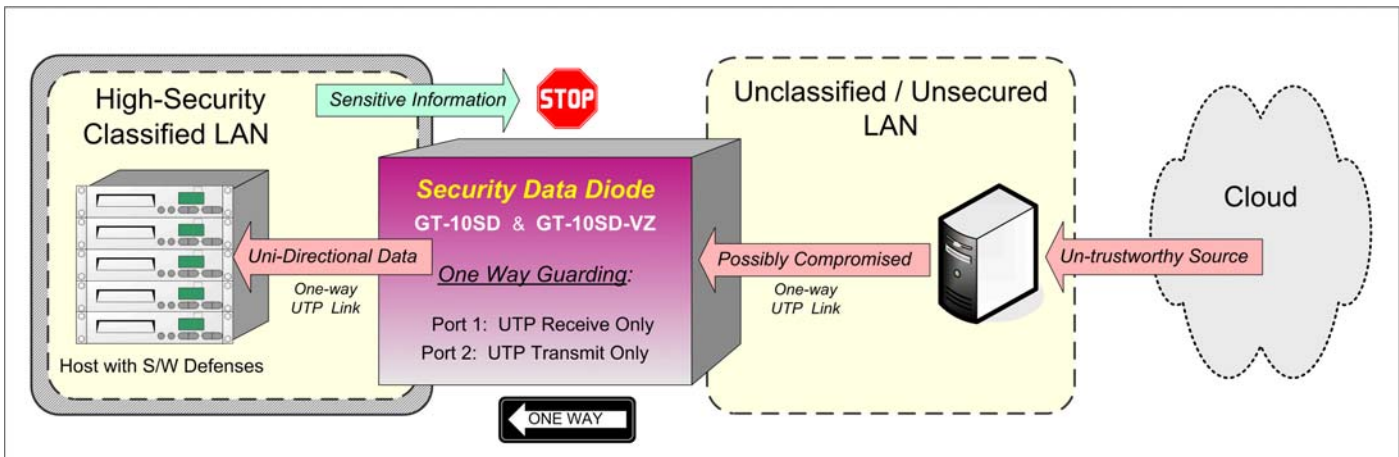
- Inside, Desktop locations or 19" rack-enclosures
- Two units can be mounted side-by-side on a standard 19"-wide shelf (available from Canary)

Please contact Canary for technical details on additional models.



Specifications:

Standards:	IEEE 802.3ab IEEE 802.1d IEEE 802.1q IEEE 802.3x RFC 2549 NCDSMO	1000BASE-T * Spanning Tree: None VLAN: Limited Functionality Flow Control Not Supported IETF IPoAC & QoS 4-01-99 GT-10SD [-V] NSA Approved List	Power:	Typical: 100 ~ 240 VAC Auto-ranging wall-mount Optional: 9 - 48 VDC Input + Terminal Block (-V) & (-VZ) versions use external DCV Sources e.g.
Throughput:	GT-10SD*: GT-10SD-VZ*:	1000 Mbps (One-way transmission) Same	9 - 48 VDC:	GT-10SD-V & GT-10SD-VZ Operating: 0° C to 50° C Storage: -20° C to 70° C
Max Distances:	RJ-45/UTP :	100 meters	Temperature:	Operating: 10% to 80% RH Storage: 5% to 90% RH
Max. Altitude:	2000 Meters		Humidity:	Operating: 10% to 80% RH Storage: 5% to 90% RH
Enclosure:	NEMA 1 and International Protection: IPX0 5.21 in. x 8.43 in. x 1.64 in. (D x W x H) [12.7 cm x 20.3 cm x 4.4 cm] (D x W x H)		Emissions:	CE Mark EN60950 & EN55022 and FCC Part 15 of Class A
Dimensions:			Safety:	US 21 CFR (J) & EN 60825-1 standards and UL 1950 applications, EN 60950, CE, TUV
			Weight:	5.5 lb. (2.5 Kg) (shipping wt.)



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For more information, please visit us at:
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The Canary Communications QMS
 is Certified to ISO 9001:2015

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