New! Canary Uni-Directional Data Security Diodes

Provide:

▪ **One-Way, Air-Gapped Data Forwarding** ▪ **Reversed Transmissions Blocked** ▪

▪ **External Loop** ▪ **UTP Link Auto-Negotiation** ▪ **9 – 48 VDC Power Option** ▪

▪ ***"We Deliver Data Assurance and Increased Customer Confidence!"*** ▪

Canary Uni-Directional Data Security Diodes help defend against a broad range of External, Cross-Domain & Insider cyber threats that can escape common security applications to reveal or corrupt sensitive information and 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 100Mb ***CT-20SD-EL*** and Gigabit ***GT-10SD-EL*** Data Security Diodes 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 a Canary Data Security Diode to optically isolate a secured, trusted, information source and *selectively forward* authorized data to *insecure* or weakly-protected lower domain destinations.

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

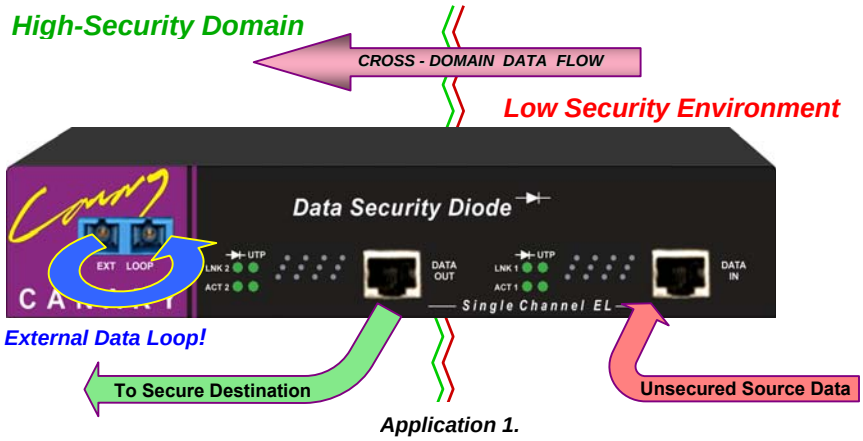
External Data Loop-Path: Test & Verify one-way Diode operation: Remove (one) end of Loop-Back Cable Assembly to sever Data Traffic; or remove Cable Assembly to immediately disable Data Diode function.

Local Data Diode/Host UTP connections are nominally full-duplex. However, bi-directional traffic is not forwarded between input and output ports. Acknowledgements, Flow-Control and error correction are completely disabled.

Optional: **9-48 VDC** [**-V**] Variable Input-Power & **Conformal Z-Coating** [**-Z**] for reduced Tin-Whisker effects and Environmental Hardening.

Canary Data Security Diodes "*Deliver increased confidence and peace of mind!"*

CT-20SD-EL & GT-10SD-EL External Loop UTP Data Diodes



Application 1.

▪ *Plug-and-Go UTP Connections:*

Configure your application to run via UDP. Connect the *un-secure* device to the *CT-20SD-EL* or *GT-10SD-EL 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 *CT-20SD-EL or GT-10SD-EL 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:

- CT-20SD-EL or CT-20SD-ELV: Two 100BASE-TX (RJ-45) Ports
- GT-10SD-EL or GT-10SD-ELV: Two 1000BASE-T (RJ-45) Ports
- CT-20SD-ELV [VZ] & GT-10SD-ELV [VZ] Same as above
- [**Z & VZ** ~ include **Conformal Z-Coating** for environmental hardening and Tin-Whisker resistance]

Networking – Local User Connections:

- 100BASE-TX & 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)
- SC & ST Cable Assemblies for Diode Loop-Back Front Panel

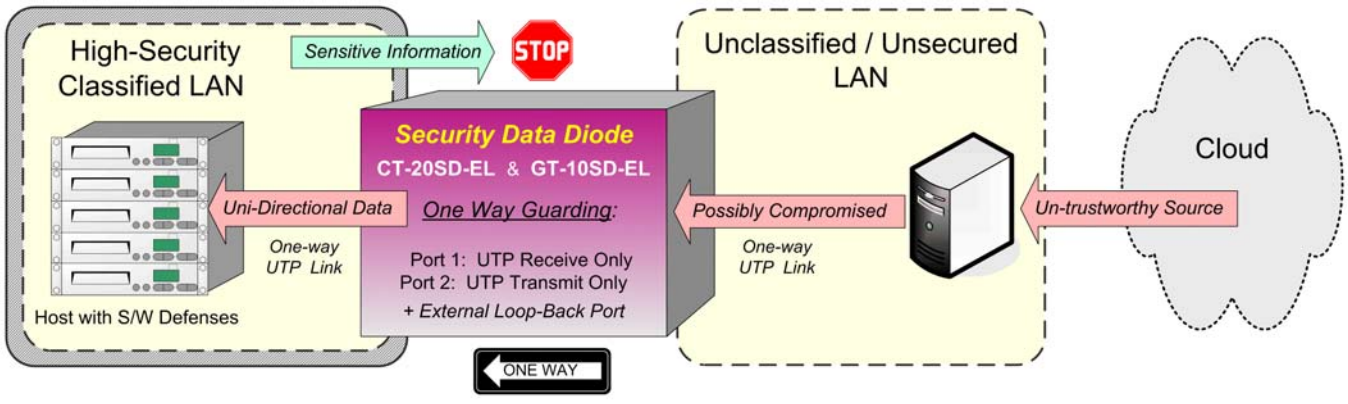
Please contact Canary for technical details on additional models.

FCC Class A | CE Approval

Specifications:

Standards:	IEEE 802.3u	100BASE-TX *
	IEEE 802.3ab	1000BASE-T *
	IEEE 802.1d	Spanning Tree: None
	IEEE 802.1q	VLAN: Limited Functionality
	IEEE 802.3x	Flow Control Not Supported
	RFC 2549	IETF IPoAC & QoS 4-01-99
	NCDSMO	**GT- 10SD** NSA Approved List
Throughput:	CT-20SD-EL :	100 Mbps One-way Transmission
	GT-10SD-EL:	1000 Mbps One-way Transmission
Max Distances:	RJ-45/UTP :	100 meters @ CAT 5 & above
Max. Altitude:	2000 meters	
Enclosure:	NEMA 1 & International Protection: IPX0	
Weight:	5.5 lb. (2.5 Kg) (Shipping Wt.)	

Power:	Typical: 100 ~ 240 VAC Auto-ranging wall-mount **Optional**: **9 - 48 VDC** input + Terminal Block (**-V**) (**-VZ**) versions use external DC Voltage Sources:
9 – 48 VDC:	**CT-20SD-ELV** & **GT-10SD-ELV**
Temperature:	Operating: 0º C to 50º C Storage: -20º C to 70º C
Humidity:	Operating: 10% to 80% RH Storage: 5% to 90% RH
Emissions:	CE Mark EN60950 & EN55022 and FCC Part 15 of Class A
Safety:	US 21 CFR (J) & EN 60825-1 standards and UL 1950 applications, EN 60950, CE, TUV
Dimensions:	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)



JM 02.20.20

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

TÜV NORD TUV USA Inc. ISO 9001:2015

CANARY COMMUNICATIONS

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