MERIDIAN TECHNOLOGIES

Digitally Encoded One Uni-Directional Contact Closure and One Bi-Directional RS-485 (4-wire) Data

FEATURES:

- Real Time Contact & Data Transmission
- One Channel of Contact Closure and One RS-485 (4-wire) Bi-Directional Data
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- Laser Based Systems for Multimode and Singlemode
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- *SpectraSmart*™ PC Based Network Management
- *SpectraView*™ Fault / Setup Firmware
- Local LED Status Indicators to Monitor Critical System Diagnostics for Performance Parameters
- ST, FC Optical Connector
- Hot Swappable Cards
- Laser Back - Biased Photo Detector Circuitry for Stable Optical Output Over Full Temperature Range.
- Meets EIA RS-170, RS-343A Formats
- Screw Terminal Type Connectors for Data and Contact Closure

DESCRIPTION:

This module in the DigiSlim™ product family incorporates an all-digital encoding technology. It transmits one Uni-Directional Contact Closure and One Bi-Directional RS-485 (4-wire) Data over single fiber. These single fiber, laser based systems are available in both, Multimode and Singlemode modules. The versatility of the ST/SR-1C1K/1K-xS system is enhanced by *SpectraView,* an On-Screen Diagnostic / Setup firmware system. *SpectraView* is easy to use, always active and eliminates the need for additional test equipment. *SpectraView* also includes a selectable on-board data test signal generator with built-in local and remote loop-back functions. If greater diagnostic capability is required, the ST/SR-1C1K/1K-xS system is also available with Meridian's *SpectraSmart* Network management and diagnostic PC based system. See the *SpectraSmart* and *SpectraView* brochures for additional details.

CONFIGURATIONS:

The ST/SR-1C1K/1K-xS system is available as rack mount cards and modules that can be installed in any of Meridian's desk chassis or in 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These systems can be transformed in to a standalone module by utilizing an SR-500/S (standard configuration) or an SR-1000/S.

MARKETS:

- ✓ Security and surveillance
- ✓ Access Control

SPECIFICATIONS:

Data

Formats	RS-485 (4-wire)
Data Rate	DC to 125 Kb/s
Bit Error Rate	10^{-9*}

Contact Closure

Rate	10 Hz.(Per Channel)
Contact Rating	0.3A, 30V AC / DC
Contact Bounce Time	5 ms

Optical

Fiber Data Rate	250 Mb/s

Connectors

Optical	ST, FC
Power (module)	See SR-500 Brochure for details
Contact Closure/ Data	Screw Terminal

Power **

Card	6 Watts

Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX Carrier - Present / Error
2 - Green	Data Present
1 - Green	Contact Closure Present

Physical

Dimensions (Card)	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Weight (Card)	450 gms (16 Oz)
No. of Slots	1
Module	See SR-500 Brochure

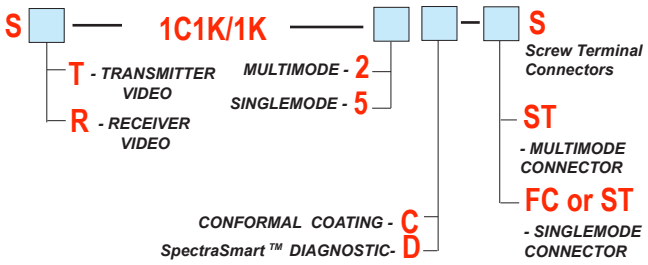
Enviromental

Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

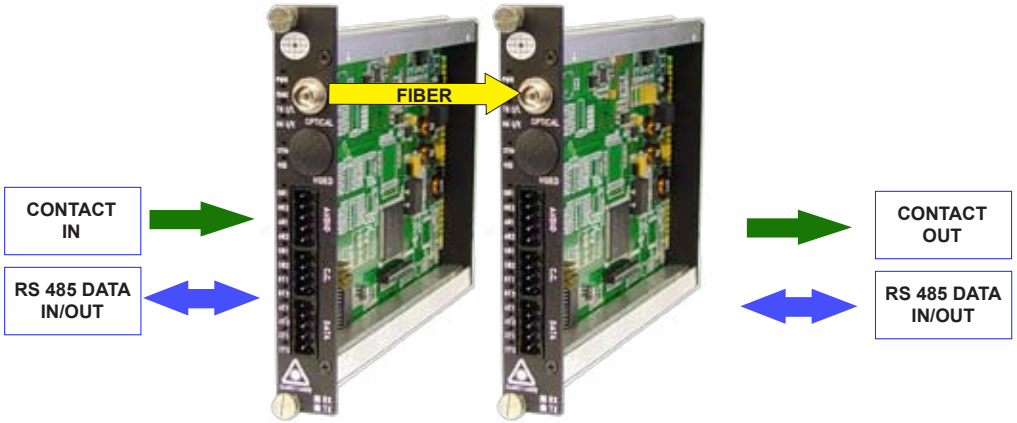
Quality

MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F

Part Numbers:



* *measured @ max. optical budget*
** *Due to variations of drivers and diagnostic options, power shown @ max value*



ST-1C1K/1K-xS Transmitter **SR-1C1K/1K-xS Receiver**

OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5 / 125	-5	-26	21	1300 / 850	ST	24
Singlemode (FP Laser) 9 / 125	-5	-26	21	1310 / 1550	ST, FC	24

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