

KSC-200





Industrial Optically Isolated Serial RS-232 to Fiber Converter

Product Highlights:

- Transparent conversion
- Surge protection
- High ESD protection
- Optical isolation
- Versatile optical cables support
- DIN-rail mounting
- Wide temperature range
- Wide power voltage range

The converter is designed to provide the most versatile connection possible between 2 RS-232 serial equipment using fiber optic cable. It allows any two pieces of serial equipment to communicate full-duplex over typical duplex fibers, or over optional single fiber up to 20km. The converter supports transparent conversion for not only RS-232 data lines, but also all RS-232 control signals. It also supports all RS-232 baud rates with no need for user configuration. The Din-rail mountable design makes it ideal for industrial cabinets and enclosures. Further, more designs such as signal protection, wide operating temperature range, wide power voltage range are also provided to suit for more industrial applications.

Key Features:

- Transparent conversion for all RS-232 signals
- Supports RS-232 baud rate higher than 115.2Kbps
- Auto adaptation and conversion to any RS-232 baud received
- Operation with no required configuration
- Extending all RS-232 signals over long optical cables
- Supports versatile optical cables:
- ST/SC multimode duplex fibers
- SC single mode duplex fibers
- SC single mode single fiber
- Provides surge protection (transient voltage) on RS-232 signals
- Provides high ESD protection on RS-232 signals
- Provides optical isolation between RS-232 and main circuitry
- Designed for industrial environments with:
 - RS-232 surge, ESD, and isolation protection
 - DIN-rail and panel mounting support
- Wide power voltage range supportTerminal block and Jack-type power connectors
- Wide operating temperature rangeAlarm relay output for device power failure
- Industrial-rated emission and immunity performance

Specifications: RS-232 Interface Connector DB9 Female DCE Pin Assignments Signals TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND Data Rate 0 ~ 115.2Kbps Surge Protection Transient Overvoltage outside +/-28V Line ESD Protection +/-15KV Optical isolation between RS-232 and main circuit, 3000 VDC rms Isolation





Ordering Informations:

Model KSC-200-X	Fiber Mode	Connec- tor	Ref. Distance	
-T	MMF	Duplex ST	2km	
-C	MMF	Duplex SC	2km	
-SL2	SMF	Duplex SC	20km	
-W3515	SMF	Bi-Di SC	15~20km	
-W5315	SMF	Bi-Di SC	15~20km	

MMF: Multimode Fiber SMF: Single Mode Fiber

EMI EMS Safety Environmental Tests:

Test	Standard	Specifications	
FCC/EMI	FCC Rule Part 15	Class B	
CE/EMC/EMI	EN55022, CISPR 22	Class B	
CE/EMC/Harmonic	EN 61000-3-2	< 75 W	
CE/EMC/VFF	EN 61000-3-3	Clause 5	
CE/EMC/EMS	EN 55024		
ESD Test	IEC 61000-4-2	Contact: +/-8KV Air: +/-16KV	
RS Test	IEC 61000-4-3	Strength:10V/m	
EFT/BURST	IEC 61000-4-4	Power: 4KV Signals: 2KV	
Surge Immunity	IEC 61000-4-5	Power: 4KV	
CS Test	IEC 61000-4-6	10V Level 3	
Magnetic Field Imm.	IEC 61000-4-8	50Hz 40A/m	
Voltage Dips Imm.	IEC 61000-4-11	Interruption: C Dips: B	
Safety	EN 60950, IEC 60950		
Dielectric Voltage	IEEE 802.3	TP, 1500VAC/60sec.	
Insulation Resistance	IEEE 802.3	TP, 500VDC/10Mohm	
Cold Test	IEC 68-2-1 Test Ad	-20°C, 96hrs	
Dry Heat Test	IEC 68-2-2 Test Bd	+70°C 40%RH 96hrs	
Damp Heat Test	IEC 68-2-3	+60°C 90%RH 96hrs	
Storage Test	IEC 68-2-48	-20°C 96hrs +85°C 40%RH 96hrs	
Vibration Test	IEC 68-2-34	5~30Hz, 0.5g Operating	



FCC Part 15, Class B CISPR 22 Class B

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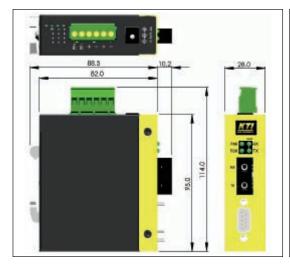
This information is subject to change without prior notice.

Optical Interface Connector Fiber Cables Link Distance LEDs	Multimode (MMF): 50/12 Up to 20km (model depe	ingle SC (model dependent) 5μm, 62.5/125μm, Single mode (SMF): 9/125μm ndent) α, RS-232 Rx, Optical link status	
DC Power Input	Screwed terminal block: DC jack: Operating voltage range:	2 pairs of +/- contacts 1 pair of power alarm relay output contacts -D 6.3mm / +D 2.0mm	
Dimension	28 x 82 x 95 mm (WxDxl	H), Weight: 240g	
Housing	Enclosed metal with no fan		
Mounting Support	DIN-Rail mounting, Panel mounting		
Environment	Operating Temperature: Storage Temperature: Relative Humidity:	-20°C ~ 85°C	
Approval	FCC Class B, CE/EMC C	Class B, EN60950 safety	

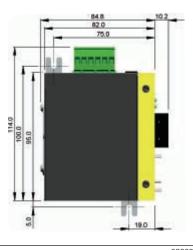
Fiber Optical Specifications:								
Model	Connector	Wavelength	Tx Power	Rx Sens.	Rx. Max			
KSC-200-T	Duplex ST	1310nm	-19 ~ -14dBm	-31dBm	-14dBm			
KSC-200-C	Duplex SC	1310nm	-19 ~ -14dBm	-31dBm	-14dBm			
KSC-200-SL2	Duplex SC	1310nm	-15 ~ -7dBm	-32dBm	-3dBm			
KSC-200-W3515	Bi-Di SC	Tx 1310nm Rx 1550nm	-14 ~ -8dBm	-31dBm	0dBm			
KSC-200-W5315	Bi-Di SC	Tx 1550nm Rx 1310nm	-14 ~ -8dBm	-31dBm	0dBm			
*Duplex SC: 2 SC for TX	and RX							

Optical Fiber

MMF up to 2km
SMF up to 20km
Single fiber up to 20km



*Bi-Di SC: single SC for TX and RX



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