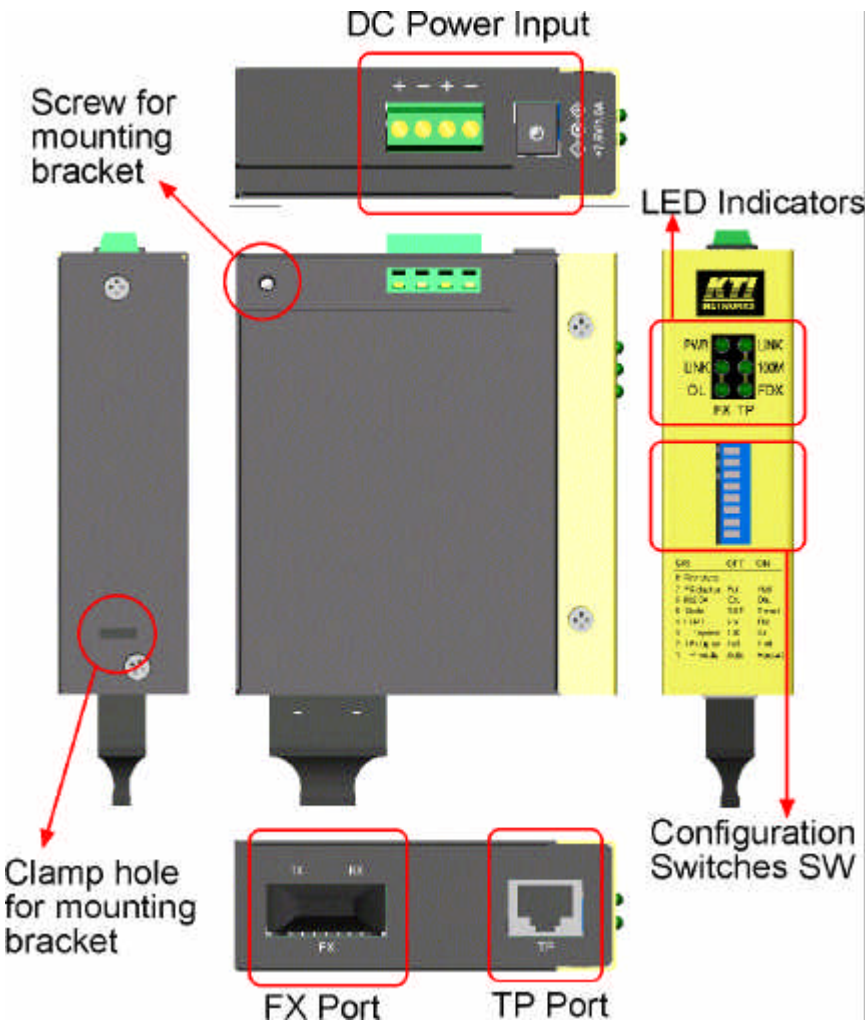


INDUSTRIAL 10/100BASE-TX TO 100BASE-FX MEDIA CONVERTERS
KCD-300 Series

Application Note

(DOC. 040531)



Key Features

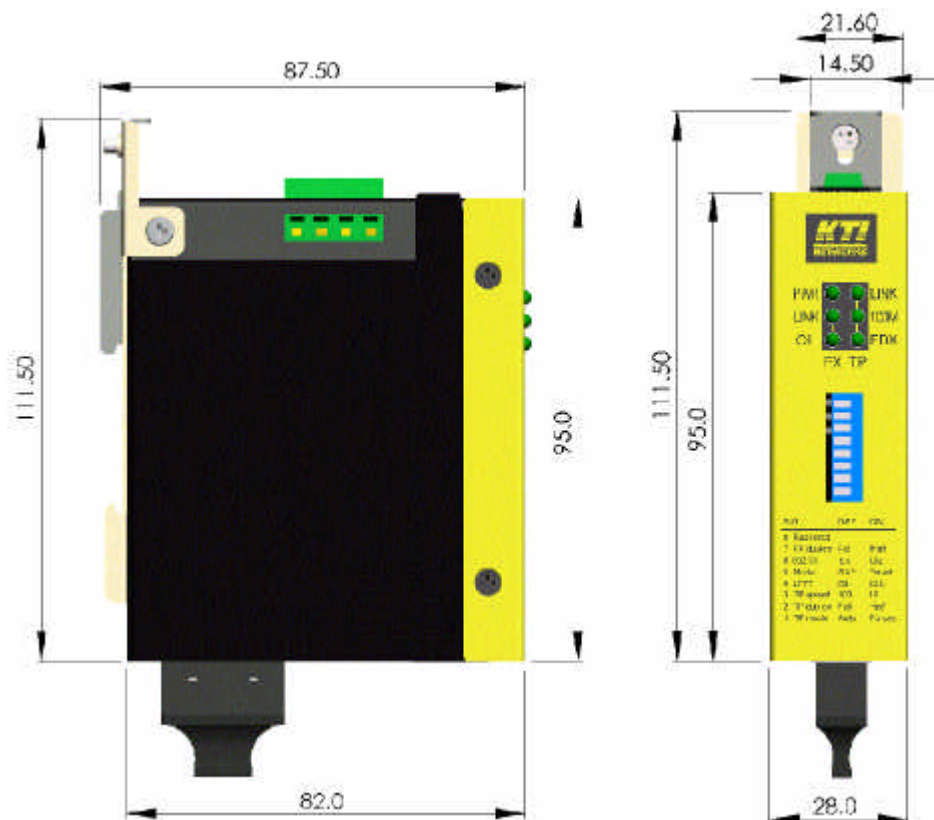
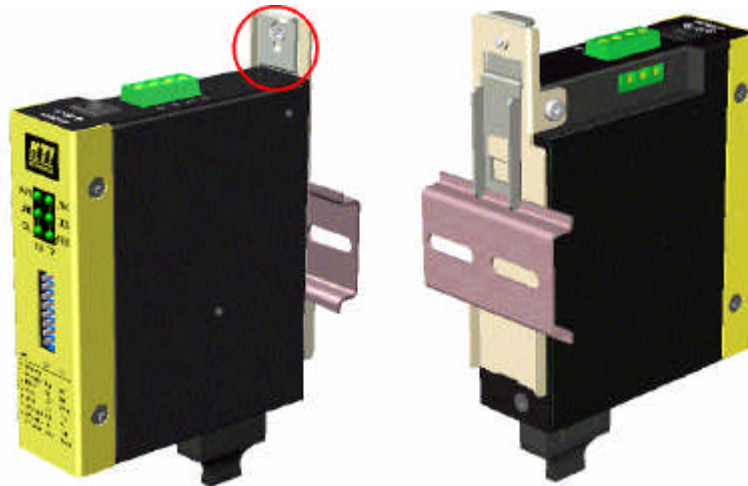
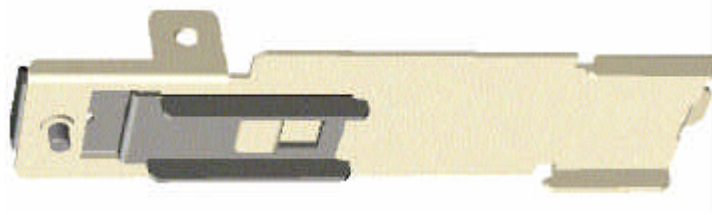
Converter Functions

- **Conversion for 10Base-T –100Base-FX, 100Base-TX-100Base-FX**
- **Comprehensive configuration settings** to increase the flexibility for more application needs
- **Smart-Forward operating mode**, which uses store-and-forward mechanism for packet forwarding normally when both media ends operate at different speed, but switch to direct conversion automatically to achieve the least latency when both media ends operate at the same speed.
- **Link Fault Pass Through function** which allows link fault status passes through from one end to another end transparently.

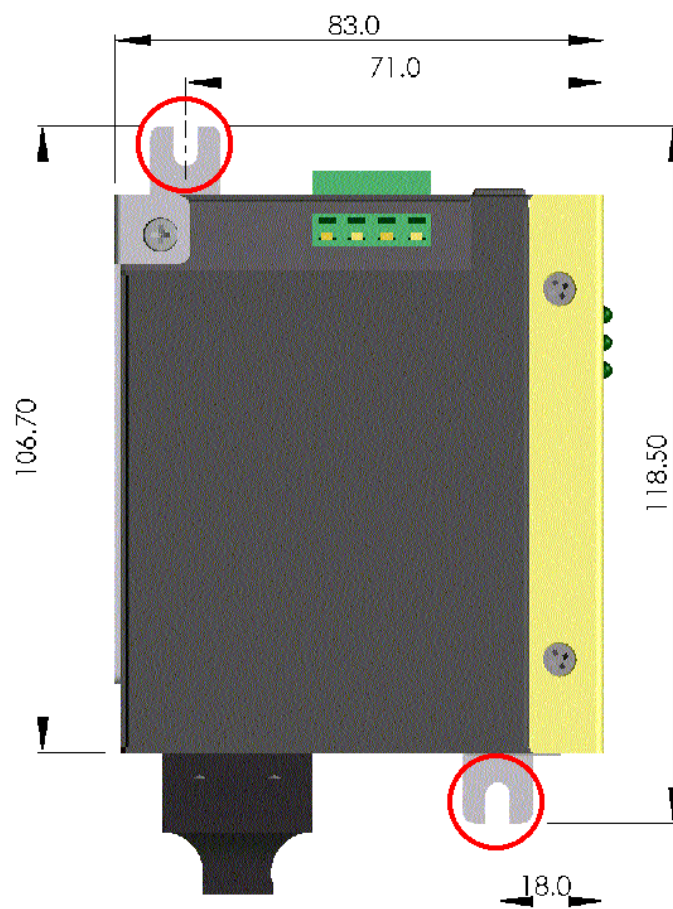
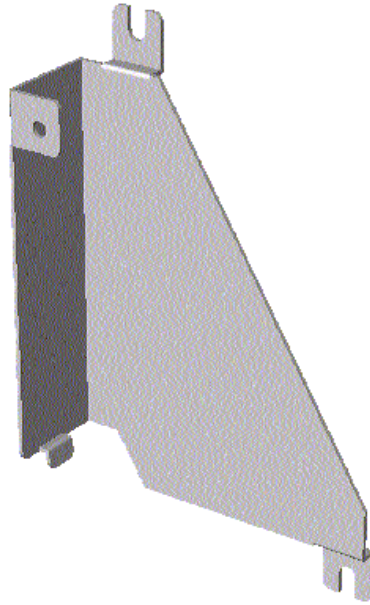
Industrial Functions

- **High and wide operating Temperature:** -20°C to +60°C
- **Wide operating voltage range** for DC power input: +7 ~ 30VDC
- **Power input interface:** Screw terminal block and DC jack for adapter
- **DIN rail mounting** support for industrial enclosure
- **Screwed plane surface mounting** support for industrial enclosure
- **Enhanced Emission and Immunity performance**

DIN Rail Mounting



Plane Surface Mounting

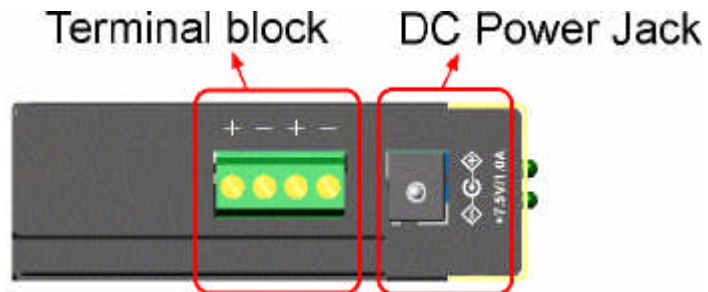


DC Power Input

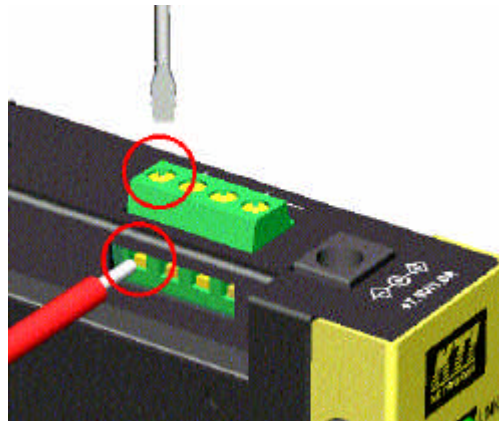
DC Input Operating Voltage : +7 ~ +30VDC

Power Consumption : Max. 2.6W @ 30VDC Input

Interfaces:



Screwed Terminal Block



DC Power Jack



Optical Specifications & Model Description

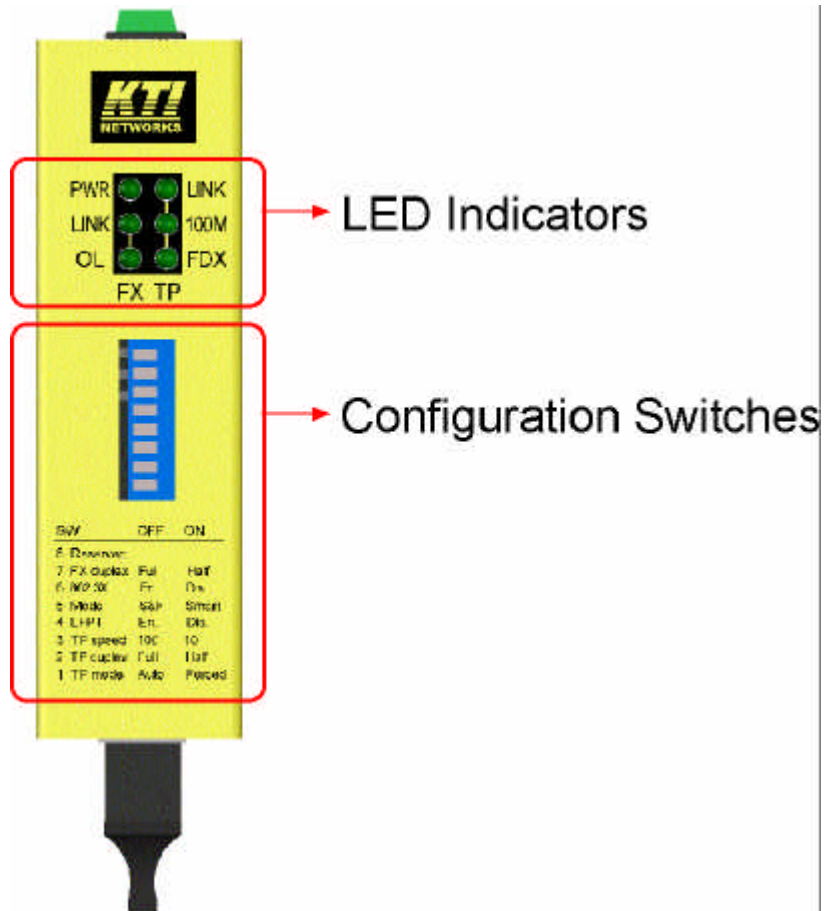
Model

Model	FX Port	Fiber Cable	Distance	Operating Temperature
KCD-300-T	ST	MMF	2km	-10 ~ +60°C
KCD-300-C	SC	MMF	2km	-10 ~ +60°C
KCD-300-CL1	SC	MMF	2km	-20 ~ +60°C
KCD-300-CL2	SC	MMF	2km	-20 ~ +60°C
KCD-300-SA2	SC	SMF	15km	-20 ~ +60°C
KCD-300-SL3	SC	SMF	30km	-20 ~ +60°C
KCD-300-SL5	SC	SMF	50km	-20 ~ +60°C

Optical Specification

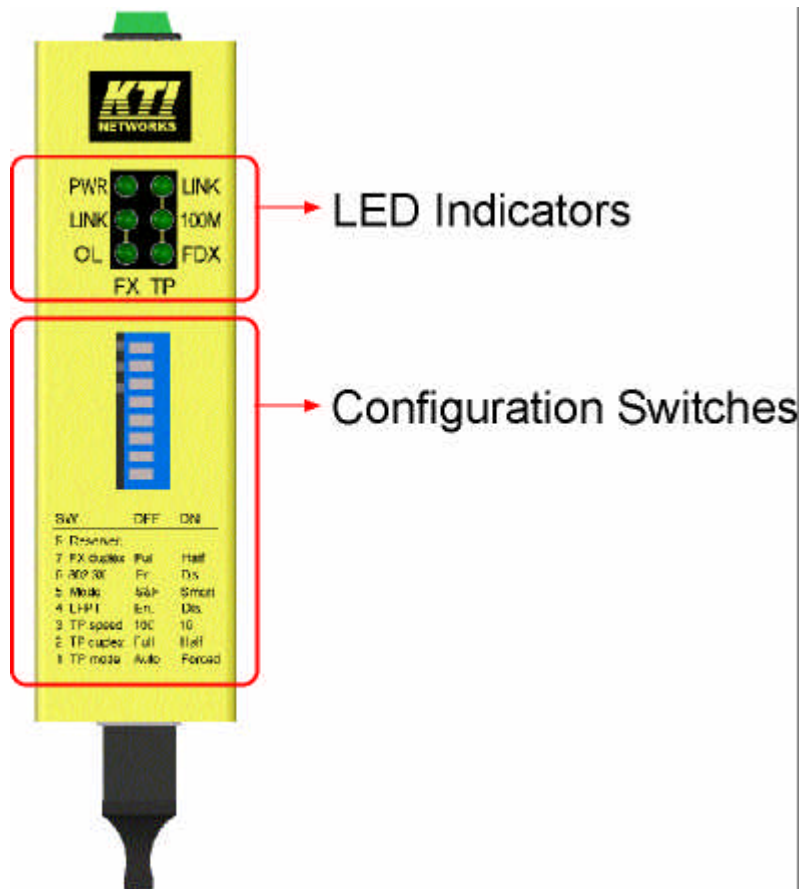
Model	Wavelength	Tx Power	Rx Sensitivity	Max. Rx Power
KCD-300-T	1310nm	-19 ~ -14 dBm	-34dBm	-14dBm
KCD-300-C	1310nm	-19 ~ -14 dBm	-34dBm	-14dBm
KCD-300-CL1	1310nm	-19 ~ -12 dBm	-32dBm	-8dBm
KCD-300-CL2	1310nm	-19 ~ -14 dBm	-34dBm	-3dBm
KCD-300-SA2	1310nm	-15 ~ -8 dBm	-31dBm	-7dBm
KCD-300-SL3	1310nm	-15 ~ -8 dBm	-34dBm	-7dBm
KCD-300-SL5	1310nm	-5 ~ 0 dBm	-34dBm	-3dBm

Configuration Switches



SW1	TP Port Mode	OFF	Auto-negotiation
		ON	Forced
SW2	TP Port Duplex	OFF	Full duplex
		ON	Half duplex
SW3	TP Port Speed	OFF	100Mbps
		ON	10Mbps
SW4	Link Fault Pass Throught Function	OFF	Enabled
		ON	Disabled
SW5	Forwarding Mode	OFF	Store-and-forward always
		ON	Smart-forward
SW6	802.3x Flow Control Function	OFF	Enabled
		ON	Disable
SW7	FX Duplex	OFF	Full duplex
		ON	Half duplex

LED Indication



PWR	Power status	OFF	No power
		ON	Power on
TP LINK	TP Port Link Status	OFF	No active link
		ON	Link on and no traffic
		Blink	Rx/Tx activities
TP 100M	TP Port Speed	OFF	10Mbps
		ON	100Mbps
TP FDX	TP Port Duplex	OFF	Half duplex
		ON	Full duplex
FX LINK	FX Port Link status	OFF	No active link
		ON	Link on and no traffic
		Blink	Rx/Tx activities
FX OL	FX Port Optical Link status	OFF	No optical input
		ON	Optical signal received