



# KGC-240



## Industrial 10/100/1000Base-T to Dual-speed Fiber Media Converters

### Product Highlights:

- Copper 10/100M/1G support
- Fiber 100M/1G support
- LFPT function

### Key Features:

- Tri-speed 10/100M/1Gbps copper to dual-speed 100M/1Gbps fiber conversion
- Comply with IEEE 802.3, 802.3u, 802.3ab, 802.3z standard
- Support full wire speed conversion for Gigabit copper to Gigabit fiber
- Support auto-negotiation with link partners
- Provide dual-speed SFP on fiber port for mounting variety of fiber options
- Provide important LFPT (Link Fault Pass Through) media converter function
- Support Jumbo frame conversion
- Energy efficient ethernet (EEE) support
- Alarm events relay output
- Ideal solution for multimode, short reach up to long reach single mode fiber, Bi-Di applications

### Specifications:

Standard	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.1ad, 802.3az, 802.1Q
Copper Port	Shielded RJ-45, 10/100/1000Mbps, Full/Half duplex Auto-negotiation, Auto-MDI/MDI-X
Fiber Port	SFP connector with pre-configured SFP fiber transceiver 100Mbps/1Gbps Full duplex, Auto-negotiation Far End Fault support
Network Cables	Copper port: Cat.5e recommended or higher up to 100m Fiber port: MMF 50/125µm, 62.5/125µm, SMF 9/125µm
DIP SW	Settings for fiber port mode, flow control, LFPT, FX relay alarm
LED Indication	Unit: Power status Per port: 1G/Link/Activity, 10-100/Link/Activity
Jumbo Frame size	Up to 9.6K bytes
DC Power Input	Screwed terminal block: DC+ / DC- contacts Working voltage range: +12 ~ +30VDC Polarity reversal protection
Relay Output	Screwed terminal block: 3 dry contacts for NC & NO pairs Contact rating: 30VDC/1A or 120VAC/0.5A Alarm events: power failure, configured fiber port link fault
Power Consumption	4.2W max.
Housing	Enclosed metal with no fan
Environment	Operating Temperature: -40°C ~ 75°C Storage Temperature: -40°C ~ 85°C Relative Humidity: 5% ~ 95% non-condensing



### EMC Safety Environmental Tests:

Test	Standard	Specifications
FCC/EMI	FCC Rule Part 15	Class A
CE/EMC/EMI	EN 61000-6-4	Class A
CE/EMC/EMS	EN 61000-6-2	
ESD Test	IEC 61000-4-2	Contact: +/-6kV Air: +/-8kV
RS Test	IEC 61000-4-3	Strength: 20V/m
EFT/BURST	IEC 61000-4-4	DC IN: 2kV Signal: 2kV
Surge Immunity	IEC 61000-4-5	DC IN: 1kV Signal: 2kV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50/60Hz, 30A/m
Safety	EN 60950-1	
Dielectric Voltage	IEEE 802.3	TP, 1500VAC/60sec.
Insulation Resistance	IEEE 802.3	TP, 500VDC/10Mohm
Cold Test	IEC 60068-2-1 Ad	-40°C, 72hrs
Dry Heat Test	IEC 60068-2-2 Bd	+75°C, 30%RH, 72hrs
Damp Heat Test	IEC 60068-2-3 Ca	+75°C, 95%RH, 72hrs
Storage Test	IEC 60068-2-48	-40°C, 96hrs +85°C, 30%RH, 96hrs +85°C, 95%RH, 96hrs
Vibration Test	IEC 60068-2-64 Fh	10-200Hz, 0.1g/Hz 200-500Hz, 0.03g/Hz
Vibration Test	IEC60068-2-6 Fc	5-200Hz, 1G, Sinusoidal
Shock test	IEC 60068-2-27 Ea	50G
Bump test	IEC 60068-2-27 Ea	25.5G, 1000times
NEMA TS2 Vibration test	NEMA TS2-2003 Proc. 2.2.8	10G
NEMA TS2 Environment test	NEMA TS2-2003 Proc. 2.2.7	Temp: -34°C~74°C Humid: 0%~90%
Humidity Cyclic Test	IEC 60068-2-30 Db	25°C/55°C, 95%RH 24hrs, 2 cycles

Dimension 40 x 80 x 95 mm (WxDxH)

Mounting Support DIN-Rail, Panel (optional)

Approval FCC Class A, VCCI Class A, CE mark Class A, IEC 60950-1 safety  
EN 61000-6-4 emission, EN 61000-3-2, EN 61000-3-3,  
EN 61000-6-2 Immunity for industrial environment,  
IEC 60068-2-64 Vibration, IEC 60068-2-27 Shock 50G test  
IEC 60068-2-27 Bump 25.5G test, NEMA TS2 environment,  
EN 50121-4 Railway environment

MTBF 430K hours min

### Fiber Optical Specifications:

1Gbps	Fiber Port	Wavelength	Tx Power*	Rx Sens.	Rx Max.	Distance*
-SX	LC 62.5/125 MMF	850nm	-9.5 ~ -4dBm	-18dBm	0Bm	220m
	50/125 MMF					500m
-LX	LC MMF	1310nm	-9.5 ~ -3dBm	-20dBm	-3dBm	550m
	SMF					10km
-LX20	LC SMF	1310nm	-8 ~ -2dBm	-23dBm	-1dBm	20km
-LX70	LC SMF	1550nm	0 ~ +5dBm	-24dBm	-3dBm	70km
-W3510	Bi-Di LC SMF	Tx 1310nm Rx 1550nm	-9 ~ -3dBm	-21dBm	-1dBm	10km
-W5310	Bi-Di LC SMF	Tx 1550nm Rx 1310nm	-9 ~ -3dBm	-21dBm	-1dBm	10km

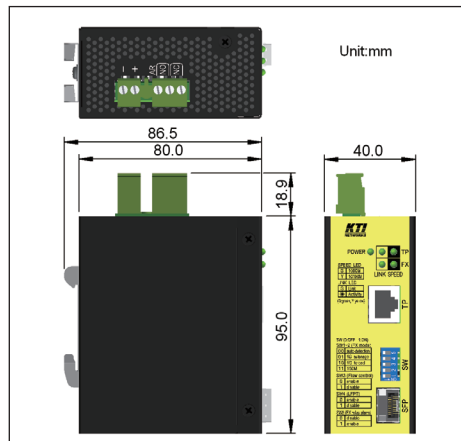
100Mbps	Fiber Port	Wavelength	Tx Power*	Rx Sens.	Rx Max.	Distance*
-FM	LC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm	2km
-FS30	LC SMF	1310nm	-15 ~ -8dBm	-34dBm	0dBm	30km

\* Tx Power data for 62.5/125µm MMF, 9/125µm SMF  
Distance: reference connection distance

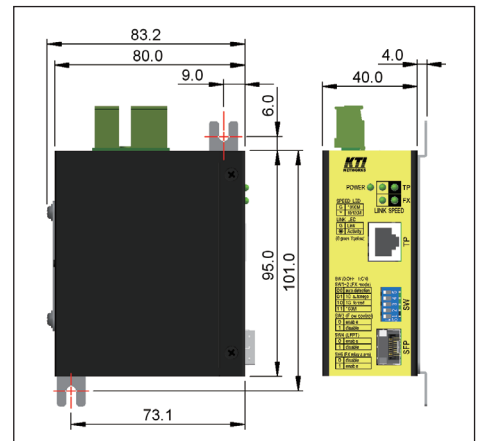


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Din-Rail Mount Dimensionn



Panel & Wall Mount Dimension