



**EUROLAN<sup>®</sup> GmbH**  
Fachgroßhandel für Netzwerktechnik



## KSD-103 Series





## Industrial 3-Port Fast Ethernet Media Converter Switches

The industrial rated KSD-103 Fast Ethernet switch series supports three switching-base segment communications and benefit the following applications and make fiber deployment easier :

- Copper to fiber bridging converter
- Multimode fiber to single mode fiber bridging converter
- Fiber cable extender
- Cascaded fiber networking

### Key Features :

- Provide 3 switching-base network segments
- Auto MDI/MDI-X crossover function on the TP copper port
- Support IEEE 802.3x flow control for full-duplex operation
- Support Back-pressure flow control for half-duplex operation
- Wide operating temperature range for temperature critical environment
- Support DIN-rail mounting and panel mounting
- Provide two power input types to meet more application needs
- Accept wide power input voltage range for application flexibility
- Industrial-rated Emission and Immunity performance

### Specifications :

Forwarding Method	Store-and-forward, Full wire speed switching
Packet Size	Support 1536 bytes max.
Packet Types	Transparent conversion with no modification to : - Standard IEEE 802.3 Ethernet packet frames - IEEE 802.1Q tagged packet frames - RSTP packet frames
TP Port	Shielded RJ-45 jack Auto MDI/MDI-X crossover function, auto-negotiation function Supports Cat. 5 UTP cable up to 100m
Fiber (FX) Port	Multimode ST, SC, Single mode SC, Bi-directional SC MMF 50/125µm, 62.5/125µm fiber cable, SMF 9/125µm cable 100Mbps Full-duplex, Far End Fault Indication support
Model Definition	KSD-103-A: 2 TP ports, 1 FX port, KSD-103-B: 1 TP port, 2 FX ports
Flow Control	IEEE 802.3x for full-duplex, Back pressure for half-duplex
LEDs	Power status, Port link/activity
DC Power Input	Screwed terminal block : 2 pairs of +/- contacts DC jack : -D 6.3mm / + D 2.0mm Voltage range : +7 - +50VDC, 4W max. @50V DC IN
Relay Output	Alarm events : power failure, specific fiber port link fault Interface : 2 terminal contacts (30VDC/1A max. or 120VAC/0.5A max.)
Dimension	28 x 82 x 95 mm, Weight : 250g

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## 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 : +/-4KV Air : +/-8KV
RS Test	IEC 61000-4-3	Strength : 10V/m
EFT/BURST	IEC 61000-4-4	Level 3 Power : +/-2KV Signal : +/-1KVV
Surge Immunity	IEC 61000-4-5	Power : 2KV Signal : 1KV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50Hz 100A/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

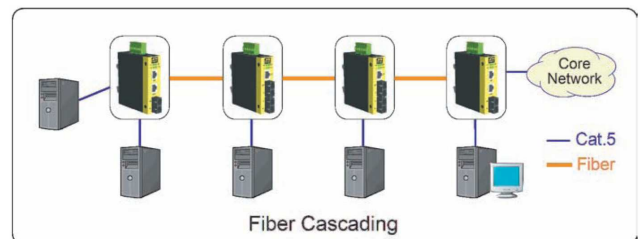
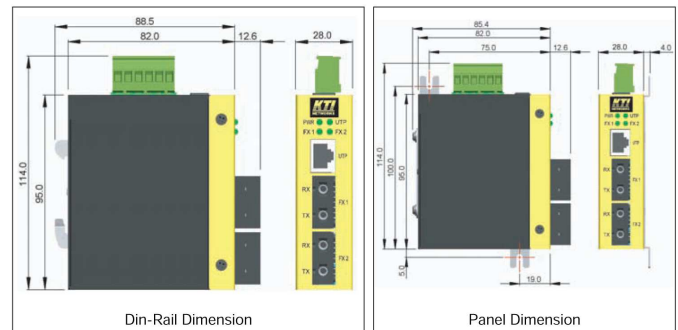
## Ordering Information :

Model	KSD-103-A FX KSD-103-B FX1 FX2	Ref. Distance	Operating Temperature
-T	ST MMF	2km	-10 ~ 70°C
-C	SC MMF	2km	-10 ~ 70°C
-C1	SC MMF	2km	-20 ~ 70°C
-SA2	SC SMF	20km	-20 ~ 70°C
-SL2	SC SMF	20km	-20 ~ 70°C
-SL3	SC SMF	30km	-20 ~ 70°C
-SL4	SC SMF	40km	-20 ~ 70°C
-SL6	SC SMF	60km	-20 ~ 70°C
-W3515	Bi-Di SC SMF	15~20km	-20 ~ 70°C
-W5315	Bi-Di SC SMF	15~20km	-20 ~ 70°C
-C1SL2	FX1: SC MMF FX2: SC SMF	2km 20km	-20 ~ 70°C

Housing	Enclosed metal with no fan
Mounting Support	DIN Rail mounting, Panel mounting
Temperature	Operating : -20°C ~ +70°C, Storage : -20°C~ +85°C Relative Humidity : 5% ~ 95% non-condensing
Approval	FCC Class B, CE/EMC Class B, EN60950 safetyHousing

## Fiber Optical Specification :

Model Ext.	FX & Cable	Wavelength	Tx Power	Rx Sensitivity	Rx Max.Power
<b>KSD-103-A-xxx &amp; KSD-103-B-xxx</b>					
-T	ST MMF	1310nm	-19 ~ -14 dBm	-31 dBm	0 dBm
-C	SC MMF	1310nm	-19 ~ -14 dBm	-31 dBm	-14 dBm
-C1	SC MMF	1310nm	-20 ~ -14 dBm	-31 dBm	0 dBm
-SA2	SC SMF	1310nm	-15 ~ -8 dBm	-31 dBm	-7 dBm
-SL2	SC SMF	1310nm	-15 ~ -8 dBm	-30 dBm	-7 dBm
-SL3	SC SMF	1310nm	-15 ~ -8 dBm	-34 dBm	0 dBm
-SL4	SC SMF	1310nm	-5 ~ 0 dBm	-34 dBm	0 dBm
-SL6	SC SMF	1310nm	-5 ~ 0 dBm	-35 dBm	0 dBm
-W3515	Bi-Di SC SMF	TX 1310nm RX 1550nm	-14~ -8 dBm	-31 dBm	0 dBm
-W5315	Bi-Di SC SMF	TX 1550nm RX 1310nm	-14~ -8 dBm	-31 dBm	0 dBm
<b>KSD-103-B-xxx</b>					
-C1SL2	FX1 : SC MMF FX2 : SC SMF	1310nm 1310nm	-20 ~ -14 dBm -15 ~ -8 dBm	-31 dBm -30 dBm	0 dBm -7 dBm



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