



Datenblatt - Fiche technique - Data sheet

**21.13.1143**



ROLINE Industrie Konverter RJ-45, SC

ROLINE Convertisseur industriel RJ-45, SC

ROLINE Industrial Converter 10/100Base-T - Multimode Optical Fiber, SC

**Model no.: 21.13.1142**  
**21.13.1143**



## Industrial 10/100Base-TX to 100Base-FX Media Converter

Panel Mounting Bracket



The industrial media converter series provides industrial strength Ethernet copper-to-fiber media conversion, allowing for 10Base-T-100Base-FX or 100Base-TX-100Base-FX over multi-mode or optional single-mode fiber optical media.

### Benefits:

- Comprehensive configuration settings to increase flexibility for application needs
- 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

### Key Features:

- Support full wire speed conversion for 10/100 speed and media types
- Support auto-negotiation 10/100Mbps or forced mode on TP copper port
- Auto MDI/MDI-X crossover function on the TP copper port
- Provide Link Fault Pass Through function
- Provide comprehensive manual configuration settings
- Transparent conversion to 802.1Q VLAN tagged packets
- Provides Far End Fault function on FX (fiber) port
- Low power consumption
- Two power interface types: screw terminal block and DC Jack
- Supports wide power input voltage range
- Supports DIN rail mounting and optional screwed plane mounting
- Supports wide operating temperature range
- Industrial-rated Emission and Immunity performance

### Specifications:

Conversion	10BASE-T to 100BASE-FX, 100BASE-TX to 100BASE-FX
Conversion Methods	Smart-forward mode: - Store-and-forward for 10M to 100M - Direct conversion for 100M to 100M Store-and-forward always mode
Packet Types	Transparent conversion with no modification to: - Standard IEEE 802.3 Ethernet packet frames - IEEE 802.1Q tagged packet frames
TP Port	Shielded RJ-45 jack Auto MDI/MDI-X crossover function Auto-negotiation function for speed and duplex mode Full-duplex and Half-duplex support 10Mbps - Supports Cat. 3,4,5 UTP cable up to 100m 100Mbps - Supports Cat. 5 UTP cable up to 100m
Fiber (FX) Port	Multimode ST, SC, Single mode SC 100Mbps Full-duplex and Half-duplex support

## EMI EMS Safety Environmental Tests:

Test	Standard	Specifications
FOC/EMI	FOC Rule Part 15	Class B
CE/EMC/EMI	EN60922, CISPR 22	Class B
CE/EMC/Harmonic	EN 61000-3-2	< 75 W
CE/EMC/FF	EN 61000-3-3	Clause 5
CE/EMC/EMS	EN 55024	
ESD Test	IEC 61000-4-2	+/- 8KV
RS Test	IEC 61000-4-3	Strength: 10W/m
EFT/BURST	IEC 61000-4-4	Power: +/- 4KV
Surge Immunity	IEC 61000-4-5	Data: +/- 2KV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50Hz 40A/m
Voltage Dips Imm.	IEC 61000-4-11	Interruption: C Dips: A
Safety	EN 60950, IEC 60950	
Dielectric Voltage	IEEE 802.3	TP: 1500VAC/60sec.
Insulation Resistance	IEEE 802.3	TP: 500VDC/100mbhm
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	

## Ordering Informations:

Model	FX Port Fiber	Ref. Distance	Operating Temperature
21.13.1142	ST MMF	2km	-10 ~ 70°C
21.13.1143	SC MMF	2km	-10 ~ 70°C

MMF 50/125µm, 62.5/125µm fiber cable  
SMF 9/125µm cable  
Far End Fault Indication support

Flow Control	IEEE 802.3x for Full-duplex, Back pressure for Half-duplex
LEDs	- Power status - TP port link, activity, speed, duplex status - Per FX port link, activity, optical link status
Configuration Setting Switches	Auto/forced mode, TP speed, TP duplex FX duplex
DC Power Input	Screwed terminator block: 2 pairs of +/- contacts DC jack: -D 6.3mm/+D 2.0mm Operating voltage range: +7 ~ +30VDC
Power Consumption	3W max. @30VDC power input
Dimension	28 x 82 x 95 mm, Weight: 250g
Housing	Enclosed metal with no fan
Mounting Support	DIN-Rail mounting, Panel mounting
Environment	Operating Temperature: See ordering information Storage Temperature: -20°C ~ 85°C Relative Humidity: 5% ~ 95% non-condensing
Approval	FCC Class B, CE/EMC Class B, EN60950 safety

## Fiber Optical Specifications:

Model	FX & Cable	Wavelength	Tx Power	Rx Sens.	Rx Max.
21.13.1142	ST MMF	1310nm	-19 ~ -14dBm	-31dBm	-14dBm
21.13.1143	SC MMF	1310nm	-19 ~ -14dBm	-31dBm	-14dBm

**CE FC**  
FCC Part 15, Class B  
CISPR 22 Class B

