

# **IEC-0101FT**

# 1-Port 10/100TX to 100M-FX Slim Type Converter

- DNV Type Approved for Ships, Craft and Off-shore Platforms
- UL Class I Division II for Group A,B,C and D hazardous location
- Unique DIP switches to set the operation mode
- Built-in LLF and LFP technology
- Wide-range redundant power with polarity reverse protection

















# **OVERVIEW**

The Lantech IEC-0101FT Industrial Converter is a slim type Industrial converter which has a unique DIP switch to adjust 100M duplex mode and LLF (Link Loss Forwarding) function.

Through the DIP switch, you can also set power alarm and pure converter mode. Featured with LLF function, the Lantech IEC-0101FT is able to auto-cut off connection if one end of connection is down. The built-in LFP (Link Fault Pass-Through) scheme is to cut off Fiber TX or RX when either one has lost connection then trigger LLF to cut off all connection. Smart LLF and LFP functions alert central side switch immediate remedy action when connection is lost.

The Lantech IEC-0101FT is designed to meet the demands of industrial environments, comes packaged in a robust IP 30 housing and has been tested extensively to meet Industrial EMI

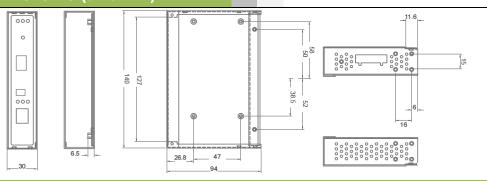
and EMC standards. With UL Class I Division II approval, IEC-0010FT can be implemented in hazardous or explosive condition without accelerating the potential damage. It is the best choice to be installed in inflammable environment where the liquid, gas and vapor etc might present the hazardous condition which generally to be find in mining, oil & gas, chemical, processing automation areas.

Lantech DNV-Type Approval IEC-0101FT-DNV model meets with the most critical test criteria in DNV Type test directives consisting of MED (Marine Equipment Directive), EMC (Electromagnetic Compatibility Directive) and LVD (Low Voltage Directive) in which vibration, high voltage, compass safe distance, salt mist tests, humidity etc are conducted to ensure the switch sustaining the harsh on-board environments often founded in Ships, Crafts and Offshore platforms.

# **FEATURES & BENEFITS**

- System Interface/Performance
  - · UTP to Fiber Media Converter
  - · RJ-45 port support Auto MDI/MDI-X Function
  - · Auto Negotiation Speed, Half/Full Duplex
  - · Store-and-Forward Switching Architecture
  - · -E / DNV model supports wide operating temperature from -40°C to 75°C
  - · Built-in LLF & LFP Technology
- Provides EFT protection 2000VDC for power line
- Supports 6000 VDC Ethernet ESD protection
- Power Supply
  - · Wide-range Redundant Dual Power Design
  - Support 9 to 56VDC /-9 to -56VDC power inputs
  - · Overload current resettable Fuse Present
  - · Power Polarity Reverse Protect
- IP-30 enclosure with DIN Rail and wall mount design
- UL Class I Division II for Group A,B,C and D hazardous location

# **DIMENSIONS** (unit=mm)





# **SPECIFICATION**

Hardware S	pecification	LED	Per unit: Power 1 (Green), Power 2 (Green),
Standards	IEEE 802.3 10Base-T Ethernet		Fault(Red)
	IEEE 802.3u 100Base-TX and 100Base-FX Fast		TX: Link/Active (Green), 100M(Yellow)
	Ethernet		Fiber: Link/Active (Green), Full duplex/Collision
	IEEE802.3x Flow Control and Back Pressure		(Yellow)
Protocol	CSMA/CD	Operating Humidity	5% ~ 95% (Non-condensing)
Transfer Rate	14,880pps for Ethernet port	Operating	-20°C~60°C / -4°F~140°F (Standard model)
	148,800pps for Fast Ethernet port	Temperature	-40°C~75°C / -40°F~167°F (-E / DNV model)
Connectors	SC/ST (Multi-mode): 50/125um~62.5/125um	Storage	-40°C~85°C / -40°F~185°F
	SC/ST (Single-mode): 9/125um	Temperature	
	Available distance: 2km (Multi-mode) /	Case Dimension	Metal case,IP-30; 30mm(W)x95mm(D)x140mm(H)
	30km(Single-mode)	Weight	600 g
	Wavelength: 1310nm (Multi-mode/Single-mode)	EMI & EMS	FCC Class A,
	10/100TX: 1 x RJ-45 with auto MDI/MDI-X function		CE EN61000-4-2 (ESD),
	[Multi-Mode] power budget: Min: 9dB, MAX: 19dB.		CE EN61000-4-3 (RS),
	[Single-Mode] power budget: Min: 19dB, MAX: 26dB.		CE EN61000-4-4 (EFT),
Transfer packet	64bytes to 1522 bytes (with VLAN tag).		CE EN61000-4-5 (Surge),
size			CE EN61000-4-6 (CS),
Mac Address	2K MAC address table		CE EN61000-4-8,
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5, 6 cable		CE EN61000-4-11,
	EIA/TIA-568 100-ohm (100m)		CE EN61000-4-12,
	100Base-TX: 2-pair UTP/STP Cat. 5, 6 cable		CE EN61000-6-2,
	EIA/TIA-568 100-ohm (100m)		CE EN61000-6-4
DIP Switch	DIP Switch 1: OFF: Disables Port /Power Alarm; ON:	Safety	UL, cUL, CE/EN60950
	Enables Port /Power Alarm		UL Class I Division II for Group A,B,C and D
	DIP Switch 2: OFF: Disables LLF (Link Lose		hazardous location
	Forwarding) & LFP (Link Fault Pass-Through); ON:	Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock),
	Enables LLF & LFP		IEC60068-2-6 (Vibration)
	DIP Switch 3: OFF: 100Base-FX Full-mode; ON:	MTBF	405486 hrs
	100Base-FX Half-mode	Power Supply	24VDC (9~48VDC),12~36VAC*, Redundant power
	DIP Switch 4: OFF: Switching mode; ON: Media		with polarity reverse protect function and removable
	mode (100TX to 100FX)		terminal block
		Warranty	5 years
Power	2.74 Watts		*Optiona
Consumption			
Reserve polarity	Present		
protection			
Overload current	Present		
protection			

# **ORDERING INFOMATION**

- IEC-0101FT-SC-MM......P/N: 8350-020
  - 1 10/100TX to 100FX Industrial Converter, SC Connector, Multi-mode, 2KM, Standard Operating Temp. (-20°C~60°C)
- IEC-0101FT-SC-SM......P/N: 8350-021
  - 1 10/100TX to 100FX Industrial Converter, SC Connector, Single-mode, 30KM, Standard Operating Temp. (-20°C~60°C)
- IEC-0101FT-ST-MM......P/N: 8350-022
  - 1 10/100TX to 100FX Industrial Converter, ST Connector, Multi-mode, 2KM, Standard Operating Temp. (-20°C~60°C)
- IEC-0101FT-ST-SM......P/N: 8350-023
  - 1 10/100TX to 100FX Industrial Converter, ST Connector, Single-mode, 30KM, Standard Operating Temp. (-20°C~60°C)
- IEC-0101FT-SC-MM-E......P/N: 8350-025
  - $1\ 10/100TX\ to\ 100FX\ Industrial\ Converter,\ SC\ Connector,\ Multi-mode,\ 2KM,\ Wide\ Operating\ Temp.\ (-40^{\circ}C\sim75^{\circ}C)$
- IEC-0101FT-SC-SM-E......P/N: 8350-026
  - 1 10/100TX to 100FX Industrial Converter, SC Connector, Single-mode, 30KM, Wide Operating Temp. (-40°C~75°C)
- IEC-0101FT-SC-MM-DNV......P/N: 8350-025DNV
  - 1 10/100TX to 100FX Industrial Converter, SC Connector, Multi-mode, 2KM, Wide Operating Temperature. (-40°C~75°C); DNV Type Approved for maritime application
  - \*Redundant power without polarity reverse protect function



### IEC-0101FT-SC-SM-DNV......P/N: 8350-026DNV

1 10/100TX to 100FX Industrial Converter, SC Connector, Single-mode, 30KM, Wide Operating Temperature (-40°C~75°C); DNV Type Approved for maritime application

\*Redundant power without polarity reverse protect function

## ■ IEC-0101FT-SC-MM-AC......P/N: 8350-020-AC

1 10/100TX to 100FX Industrial Converter, SC Connector, Multi-mode, 2KM, Standard Operating Temp. (-20°C~60°C); 12~36VAC

## ■ IEC-0101FT-SC-SM-AC.....P/N: 8350-021-AC

1 10/100TX to 100FX Industrial Converter, SC Connector, Single-mode, 30KM, Standard Operating Temp. (-20°C~60°C); 12~36VAC

### ■ IEC-0101FT-ST-MM-AC.....P/N: 8350-022-AC

1 10/100TX to 100FX Industrial Converter, ST Connector, Multi-mode, 2KM, Standard Operating Temp. (-20°C~60°C); 12~36VAC

## ■ IEC-0101FT-ST-SM-AC.....P/N: 8350-023-AC

1 10/100TX to 100FX Industrial Converter, ST Connector, Single-mode, 30KM, Standard Operating Temp. (-20°C~60°C); 12~36VAC

## ■ IEC-0101FT-SC-MM-E-AC.....P/N: 8350-025-AC

1 10/100TX to 100FX Industrial Converter, SC Connector, Multi-mode, 2KM, Wide Operating Temp. (-40°C~75°C); 12~36VAC

### IEC-0101FT-SC-SM-E-AC.....P/N: 8350-026-AC

1 10/100TX to 100FX Industrial Converter, SC Connector, Single-mode, 30KM, Wide Operating Temp. (-40°C~75°C); 12~36VAC

## ■ IEC-0101FT-SC-MM-5KM......P/N: 8350-002

1 10/100TX to 100FX Multi-mode, 5KM Industrial Converter, Standard Operating Temperature (-20°C~60°C)

## ■ IEC-0101FT-ST-MM-5KM......P/N: 8350-003

1 10/100TX to 100FX Multi-mode, 5KM Industrial Converter, Standard Operating Temperature (-20°C~60°C)

## ■ IEC-0101FT-E-SC-MM-5KM......P/N: 8350-004

1 10/100TX to 100FX Multi-mode, 5KM Industrial Converter, Wide Operating Temperature (-40°C~75°C);

### ■ IEC-0101FT-E-ST-MM-5KM......P/N: 8350-005

1 10/100TX to 100FX Multi-mode, 5KM Industrial Converter, Wide Operating Temperature (-40°C~75°C);

# **OPTIONAL ACCESSORIES**

# **DIN Rail Power**

■ MDR-40 Series 40W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2;

Operating Temp. -20°C~70°C (ambient, derating each output at 4% per degree from  $60^{\circ}$ C ~  $70^{\circ}$ C)

■ MDR-20 Series 20W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2;

Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

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