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## IES-0204FT

## 4 10/100TX + 2 100FX Industrial Switch <br> - Wide-range redundant power with polarity reverse protection <br> - Compact size with DIN rail and wall mount design <br> - Wide operating temperature range from $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$ (-E model) <br> - DNV Type Approved for Ships, Craft and Off-shore Platforms* <br> 

## OVERVIEW

The Lantech IES-0204FT is a 4-port 10/100TX + 2-port 100FX Industrial Switch for plug-and-play installation. It can auto detect power inputs and supports wide input range from 9V to 56VDC. To increase reliability, the IES-0204FT provides redundant power design with polarity reverse protection as well as EFT and ESD protections.

The Lantech IES-0204FT 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. Rigorous mechanical testing has also been undertaken with free fall, shock, and vibration stability test, which ensure long term reliability in critical industrial environments. The -E model can be used in extreme environments with an operating temperature range from $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$.

Featured with relay contact to alarm system, the IES-0204FT can immediately notify of power failure event. The Lantech IES-0204FT is compact in size and easy to be installed with DIN rail and wall mount kit. It is the best choice both in inflammable or normal industrial environment such as automation, transportation, heavy Industrial factory, mining, oil \& gas, chemical, and processing automation area.

DNV-Type Approval IES-0204FT-DNV* model is also available. It 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 \& BENEFTIS

- RJ-45 port support Auto MDI/MDI-X Function
- Store-and-Forward Switching Architecture
- Back-plane (Switching Fabric): 1.2Gbps
- 2K MAC address table
- Supports Wide Operating Temperature ( $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$ )
- Provides EFT protection 3000 VDC for power line
- Supports 6000 VDC Ethernet ESD protection

IP-30 Protection with DIN Rail and Wall Mount Design

- Power Supply
- Wide-range Redundant Power Design
- Power Polarity Reverse Protect
- Overload Current Re-settable Fuse Present
- Provides broadcast storm protection
- DNV-Type Approval model is available*


## DIMENSIONS (unit=mm)



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## SPECIFIGATION

| Hardware Specification |  | Overload current protection | Present |
| :---: | :---: | :---: | :---: |
| IEEE Standards | IEEE 802.3 10Base-T Ethernet <br> IEEE 802.3u 100Base-TX and 100Base-FX Fast <br> Ethernet <br> IEEE802.3x Flow Control and Back Pressure | protection | 24 VDC (9~56VDC), 18 VAC( 12~36 VAC), Redundant power with polarity reverse protect function and removable terminal block |
| Switch Architecture | Back-plane (Switching Fabric): 1.2Gbps <br> Packet throughput ability (Full-Duplex): 1.488Mpps @64bytes | Power <br> Consumption | 6.41 Watts |
|  |  | Operating Humidity | 5\% ~ 95\% (Non-condensing) |
| Transfer Rate | 14,880pps for Ethernet port 148,800pps for Fast Ethernet port | Operating <br> Temperature | $-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C} /-4^{\circ} \mathrm{F} \sim 140^{\circ} \mathrm{F}$ (Standard model) $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C} /-40^{\circ} \mathrm{F} \sim 167^{\circ} \mathrm{F}$ (E model) |
| Mac Address | 2K MAC address table | Storage | $-40^{\circ} \mathrm{C} \sim 85^{\circ} \mathrm{C} /-40^{\circ} \mathrm{F} \sim 185^{\circ} \mathrm{F}$ |
| Connectors | 10/100TX: $4 \times$ RJ-45 with auto MDI/MDI-X function 100M fiber: $2 \times$ SC type connector for Single-mode or Multi-mode type fiber cable [Multi-Mode] power budget : Min: 9dB , MAX: 19dB. [Single-Mode] power budget : Min: 19dB , MAX: 26dB. | Temperature | $\begin{aligned} & \text { Metal case. IP-30, } \\ & 30 \mathrm{~mm}(\mathrm{~W}) \times 95 \mathrm{~mm}(\mathrm{D}) \times 140 \mathrm{~mm}(\mathrm{H}) \end{aligned}$ |
|  |  | Weight | 810 g |
|  |  | Installation | DIN Rail and Wall Mount Design |
|  |  | EMI \& EMS | FCC Class A, CE EN61000-4-2 (ESD), CE |
| Network Cable | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5, 6 cable EIA/TIA-568 100-ohm (100m) <br> 100Base-TX: 2-pair UTP/STP Cat. 5, 6 cable EIA/TIA-568 100-ohm (100m) |  | EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4 |
| Optical Cable | Multi-mode: 50/125um~62.5/125um <br> Single-mode: 9/125um <br> Available distance: 2 km (Multi-mode)/30km <br> (Single-mode) <br> Wavelength: 1310 nm (Multi-mode/Single-mode) | Safety | CE/EN60950-1 |
|  |  | Stability Testing | IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration) |
|  |  | MTBF | 347014 hrs |
| Protocol | CSMA/CD |  |  |
| LED | Per port: Link/Activity (Green), Full duplex/Collision (Yellow) <br> Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) | Warranty | 5 years *DNV model is pending |
| Reserve polarity protection | Present |  |  |

## ORDERING INFOMATION

- IES-0204FT-ST-MM .P/N: 8350-347
4 10/100TX + 2 100FX (ST, MM 2km) Industrial Switch, Standard Operating Temperature ( $-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$ )
- IES-0204FT-SC-MM $\qquad$ P/N: 8350-340
4 10/100TX + 2 100FX (SC, MM 2km) Industrial Switch, Standard Operating Temperature $\left(-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}\right)$
- IES-0204FT-SC-SM................P/N: 8350-34 4 10/100TX + 2 100FX (SC, SM 30km) Industrial Switch Standard Operating Temperature $\left(-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}\right)$ IES-0204FT-SC-MM-AC..........P/N: 8350-340-AC 4 10/100TX + 2 100FX (SC, MM 2km) Industrial Switch Standard Operating Temperature ( $-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$ )
- IES-0204FT-SC-SM-AC. $\qquad$ P/N: 8350-341-AC
4 10/100TX + 2 100FX (SC, SM 30km) Industrial Switch, Standard Operating Temperature $\left(-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}\right)$
IES-0204FT-E-ST-MM $\qquad$ P/N: $8350-348$ 4 10/100TX + 2 100FX (ST, MM 2km) Industrial Switch, Wide Operating Temperature $\left(-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}\right.$
- IES-0204FT-E-SC-MM $\qquad$ .P/N: 8350-345 4 10/100TX + 2 100FX (SC, MM 2km) Industrial Switch Wide Operating Temperature $\left(-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}\right)$
- IES-0204FT-E-SC-SM. $\qquad$ P/N: 8350-346 $410 / 1001 X+2$ 100FX (SC, SM 30km) Industrial Switch, Wide Operating Temperature $\left(-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}\right)$
■ IES-0204FT-E-SC-MM-AC........P/N: 8350-345-AC 4 10/100TX + 2 100FX (SC, MM 2km) Industrial Switch Wide Operating Temperature $\left(-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}\right)$

IES-0204FT-E-SC-SM-AC.............P/N: 8350-346-AC 4 10/100TX + 2 100FX (SC, SM 30km) Industrial Switch, Wide Operating Temperature ( $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$ )

- IES-0204FT-SC-MM-DNV............P/N: 8350-345DNV*

4 10/100TX + 2 100FX (SC, MM 2km) Industrial Switch, Wide Operating Temperature ( $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$ )
*Redundant power without polarity reverse protect function

- IES-0204FT-SC-SM-DNV.............P/N: 8350-346DNV*

4 10/100TX + 2 100FX (SC, SM 30km) Industrial Switch, Wide Operating Temperature ( $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$ )
*Redundant power without polarity reverse protect function

- IES-0204FT-SC-MM-DNV-AC..P/N: 8350-345DNV-AC*

4 10/100TX + 2 100FX (SC, MM 2km) Industrial Switch,
Wide Operating Temperature $\left(-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}\right)$
*Redundant power without polarity reverse protect function

- IES-0204FT-SC-SM-DNV-AC..P/N: 8350-346DNV-AC*

4 10/100TX + 2 100FX (SC, SM 30km) Industrial Switch,
Wide Operating Temperature $\left(-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}\right)$
*Redundant power without polarity reverse protect function

## OPTIONAL ACCESSORIES

DIN Rail Power
■ AD1048-24FS 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. $-20^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$ (ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$, which means the output is 18 Watts at $75^{\circ} \mathrm{C}$.)
■ AD1024-24F $24 \mathrm{VDC}, 1 \mathrm{~A}$, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. $-20^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$

## ■ AD1240-48S

 (ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$, which means the output is 9 Watts at $75^{\circ} \mathrm{C}$.)(ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 70^{\circ} \mathrm{C}$ )

- AD1120-48F 48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. $-20^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$ (ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 70^{\circ} \mathrm{C}$ )


## Lantech Communications Global Inc.

