



### **OVERVIEW**

The Lantech IES-0008T is a slim type 8-Port 10/100BaseTX Industrial Switch. To increase reliability, it provides redundant power design with polarity reverse protection. It can auto detect power inputs and supports wide input range from 9.5V to 56VDC.

The IES-0008T 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, IES-0008T can be implemented in hazardous or explosive condition without accelerating the damage. Rigorous mechanical testing has also been undertaken with free fall, shock, and vibration stability test, which ensure long term reliability in critical industrial environments

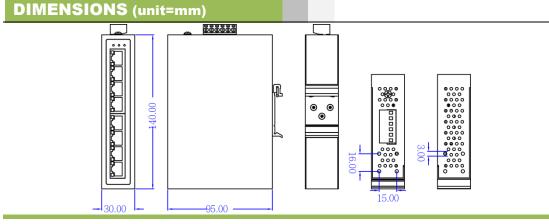
IES-0008T is compact in size and easy to be installed with DIN rail and wall mount kits. IES-0008T is applicable in many kinds of industrial environments. UL Class I Division II certification also makes it a best choice in inflammable environment.

DNV-Type Approval IES-0008T-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 & BENEFITS**

- 8-port 10/100TX Slim Type industrial switch
- Supports ingress packet filter and egress rate limit
- Conforms to IEEE 802.3u 100Base-TX/100Base-FX Flow control on full-duplex
  - Back pressure on half-duplex
- RJ-45 ports support auto MDI/MDI-X Function
- Store-and-forward switching architecture
- Wide-range redundant power design

- Power polarity reverse protection Relay alarm output for power failure events
- DIN rail and wall mount design with IP-30 enclosure UL Class I Division II for Group A,B,C and D hazardous
- location
- DNV-Type Approval IES-0008T-DNV model is available
- -E / DNV model supports wide operating temp. (-40°C~ 75°C)



Datasheet Version 1.3



# SPECIFICATION

Hardware Specification	
Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE802.3x Flow Control and Back-pressure
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port
Memory Buffer	448Kbits
Mac Address	2K MAC address table
Connectors	10/100TX: 8 x RJ-45 with auto MDI/MDI-X function
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5, 6cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5, 6 cable EIA/TIA-568 100-ohm (100m)
Protocol	CSMA/CD
LED	Per unit: Power 1 (Green), Power 2 (Green), Fault (Red) Per port: Link/Active (Green), Full duplex/Collision (Yellow)
Reserve polarity protection	Present
Overload current protection	Present
Power Supply	9.5~56VDC, AC model: 12~36VAC, Redundant power with polarity reverse protect function and removable terminal block
Power Consumption	4.71 Watts

Operating Humidity 5% ~ 95% (Non-condensing)   Operating Temperature -20°C-60°C / 4°F-140°F (Standard model)   storage Temperature -40°C-75°C / 40°F-167°F (-E / DNV model)   Storage Temperature -40°C-85°C / 40°F-185°F   Case Dimension Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)   EMI & EMS FCC Class A, CE EN61000-4-2 (ESD), CE 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 EN61000-6-2, CE EN61000-6-4   Safety UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location   Stability Testing IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)   MTBF 388566 hrs   Warranty 5 years		
Humidity     -20°C-60°C / -4°F-140°F (Standard model)       Temperature     -40°C-75°C / -40°F-167°F (-E / DNV model)       Storage     -40°C-85°C / -40°F-165°F       Temperature     -40°C-85°C / -40°F-185°F       Case Dimension     Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (SR), 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 EN61000-4-8, CE EN61000-6-2, CE EN61000-6-4       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)       MTBF     385566 hrs       Warranty     5 years		
Operating Temperature     -20°C-60°C / 4°F-140°F (Standard model) -40°C-75°C / 40°F-167°F (-E / DNV model)       Storage Temperature     -40°C-85°C / -40°F-185°F       Case Dimension     Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), 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       Safety     UL, cUL, CE/EN60950-1 UL class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years		5% ~ 95% (Non-condensing)
Temperature     -40°C-75°C / -40°F-167°F (-E / DNV model)       Storage     -40°C-85°C / -40°F-185°F       Temperature     -40°C-85°C / -40°F-185°F       Case Dimension     Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-8, CE EN61000-4-10, CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-4-12, CE EN61000-6-4       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-32 (Free fall)       MTBF     388566 hrs       Warranty     5 years		
Storage Temperature     -40°C-85°C / -40°F-185°F       Case Dimension     Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE 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       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-32 (Free fall)       MTBF     388566 hrs       Warranty     5 years		
Temperature     Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-6-4, CE EN61000-6-2, CE EN61000-6-4       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years	Temperature	-40°C~75°C / -40°F~167°F (-E / DNV model)
Case Dimension     Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-1 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-11, CE EN61000-4-8, CE EN61000-6-2, CE EN61000-6-4       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years	Storage	-40°C~85°C / -40°F~185°F
30mm (W) x 95mm (D) x 140mm (H)       EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE 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 EN61000-4-8, CE EN61000-6-2, CE EN61000-6-4       Safety     UL, cUL, CE/EN60950-1 UL, class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years	Temperature	
EMI & EMS     FCC Class A, CE EN61000-4-2 (ESD), CE 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       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-32 (Free fall) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years	Case Dimension	Metal case. IP-30,
CE 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       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-32 (Free fall) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years		30mm (W) x 95mm (D) x 140mm (H)
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       Safety     UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years	EMI & EMS	
CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4       Safety     UL, cUL, CE/EN60950-1 UL, Class I Division II for Group A,B,C and D hazardous location       Stability Testing     IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)       MTBF     388566 hrs       Warranty     5 years		CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT),
CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4   Safety UL, cUL, CE/EN60950-1 UL, class I Division II for Group A,B,C and D hazardous location   Stability Testing IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)   MTBF 388566 hrs   Warranty 5 years		CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS),
CE EN61000-6-4   Safety UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location   Stability Testing IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)   MTBF 388566 hrs   Warranty 5 years		
Safety UL, cUL, CE/EN60950-1   UL class I Division II for Group A,B,C and D   hazardous location   Stability Testing   IEC60068-2-32 (Free fall)   IEC60068-2-27 (Shock)   IEC60068-2-6 (Vibration)   MTBF   388566 hrs   Warranty   5 years		
UL Class I Division II for Group A,B,C and D hazardous location   Stability Testing IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)   MTBF 388566 hrs   Warranty 5 years		CE EN61000-6-4
hazardous location   Stability Testing IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)   MTBF 388566 hrs   Warranty 5 years	Safety	
Stability Testing IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)   MTBF 388566 hrs   Warranty 5 years		· · · · · · · · · · · · · · · · · · ·
IEC60068-2-27 (Shock)   IEC60068-2-6 (Vibration)   MTBF   388566 hrs   Warranty   5 years		hazardous location
IEC60068-2-6 (Vibration) MTBF 388566 hrs Warranty 5 years	Stability Testing	IEC60068-2-32 (Free fall)
MTBF 388566 hrs Warranty 5 years		. ,
Warranty 5 years		IEC60068-2-6 (Vibration)
	MTBF	388566 hrs
*Qotiona	Warranty	5 years
*Optiona		
		*Optiona

### **ORDERING INFOMATION**

- IES-0008T.....P/N: 8350-620 8 10/100TX Industrial Switch, Standard Operating Temperature (-20°C~60°C)
- IES-0008T-E.....P/N: 8350-621 8 10/100TX Industrial Switch, Wide Operating Temperature (-40°C~75°C)
- IES-0008T-DNV......P/N: 8350-621DNV 8 10/100TX Industrial Switch, Wide Operating Temperature (-40°C~75°C); DNV Type Approved for maritime application \*Redundant power without polarity reverse protect function
- IES-0008T-AC.....P/N: 8350-620-AC 8 10/100TX Industrial Switch, Standard Operating Temperature (-20°C~60°C); 12~36VAC
- IES-0008T-E-AC.....P/N: 8350-621-AC

8 10/100TX Industrial Switch, Wide Operating Temperature (-40°C~75°C); 12~36VAC

## **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)