NEW PRODUCT

Industrial Switch

INDURA™

Industrial Managed Substation-Rated Switch

Transition Network's Indura™ series of industrial, managed switches provide fully-hardened solutions designed to operate reliably in harsh environments.

Indura™ is designed to meet IEC 61850-3, ATEX Zone 2 and UL Class 1 Div 2. Indura™ offers advanced industrial Ethernet management, redundancy and security features coupled with rugged hardware performance for industrial or outdoor environment applications requiring high reliability and availability. Its four Gigabit SFP ports allow maximum flexibility in a wide range of fiber supported network architectures.

Indura™ supports IEEE 1588v2 Precision Time Protocol for real-time automation applications. IEEE 802.3ah / IEEE 802.1ag / ITU -T Y.1731 make Indura™ an excellent choice for networks that need fault detection and fault isolation.

Features

- Innovative passive cooling design to maintain operating temperature of SFPs
- Designed to meet IEC 61850-3, ATEX Zone 2 and UL Class 1 Div 2
- Extended (-40°C to 75°C) operating temperature
- Redundancy: ITU-T G.8032v2 (Ethernet Ring Protection Switching) with Recovery < 50 ms, STP/RSTP/MSTP
- Synchronization: IEEE 1588v2 PTP
- System Alarms: Fault Output Relay, Syslog, SNMP Traps
- Security: IEEE 802.1x User Authentication, RADIUS and TACACS+, SNMPv3
- IPv4 and IPv6 support
- Link Aggregation LACP
- OAM Support: Link OAM IEEE 802.3ah, Service OAM IEEE 802.1ag, ITU-T Y.1731
- Jumbo Frame Support (9.6K)
- Quality of Service (802.1p) for real-time traffic prioritization
- VLAN (802.1Q) with double tagging
- IGMP v2/v3
- Management via CLI, Telnet, SSH, SSL, SNMPv1, v2c & v3
- IEC 62439 Media Redundancy Protocol (MRP), Parallel Redundancy Protocol (PRP) (In Development)
- EEE on all 10/100/1000 Mbps ports (Future firmware upgrade)
- USB port (Future firmware upgrade)

Specifications

Data Rate	Copper: 10/100/1000 Mbps SFP: 100/1000 Mbps
Status LEDs	Power, Fault Relay Alarm. Port Activity, Duplex
Dimensions	Width: 5.05" [128.27mm] Depth: 5.64" [143.256mm] Height: 6.80" [178.72mm]
Ingress Protection	IP30
Input Power	18 - 57 VDC; redundant inputs
Fault Relay	1A at 60 VDC capacity
Management Console	Dedicated 10/100/1000 Base-T RJ45 Port
Power Consumption	36 Watts Max
Environment	-40°C to +75°C Operating temp. 5% – 95% humidity non-condensing -40°C to +85°C Storage temp.
Shipping Weight	6.75 lbs
Mounting Options	DIN Rail, Wall mount
Safety	UL Class 1 Div 2*, ATEX Zone 2*, UL 60950*
Certifications	IEC 61850-3*, EN 60079-15:2005*, IEEE 1613*
Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol) IEEE 802.3ah Link OAM Dying Gasp IEEE 802.3ag/Y.1731 SOAM FM and PM IEEE 1588-2008 (v2) Precision Time Protocol (PTP)
Warranty	Lifetime

*** Certification pending**

Ordering Information:

IND-3280-L
(4) 10/100/1000 Mbps RJ45 ports
(4) 100/1000 Mbps SFP ports
L = 18-57 VDC dual-input power

IND-3284-L
(7) or (8) 10/100/1000 Mbps RJ45 ports
(3) or (4) 100/1000 Mbps SFP ports
L = 18-57 VDC dual-input power

Future Models:

IND-3280 and IND-3284 with
18-57 VDC dual-input power
125 VDC power supply
SyncE option
PoE option

IND-3224
(24) 10/100/1000BASE-TX ports with
(4) 10 Gigabit SFP ports

Applications

- Power Generation, Transmission & Distribution
- Electrical Substation
- Smart Grid
- Oil & Gas, Petrochemical
- Mining
- Wastewater Treatment Plants
- Shipyards / Airports
- Outdoor IP Video Surveillance
- Intelligent Transportation Systems
- Process and Factory Automation requiring Precision Time Protocol
- High Availability Fiber-based Network Ring Architectures
- Cellular Backhaul

TRANSITION NETWORKS

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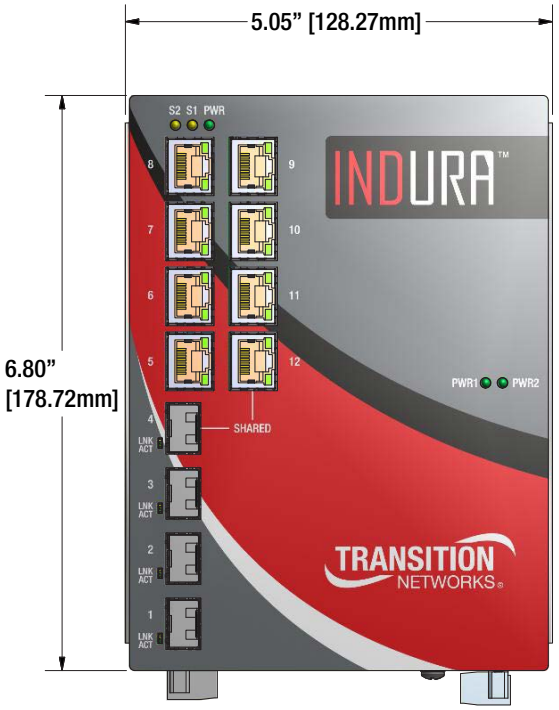
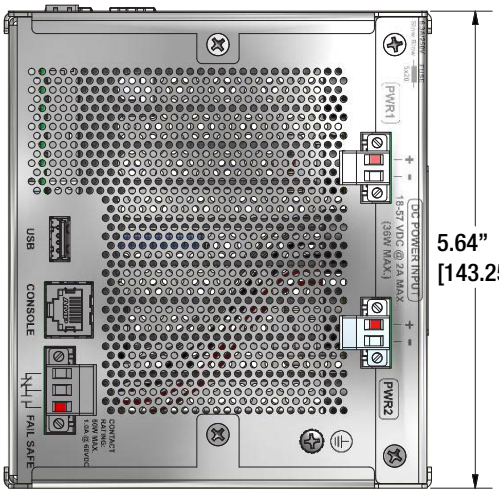
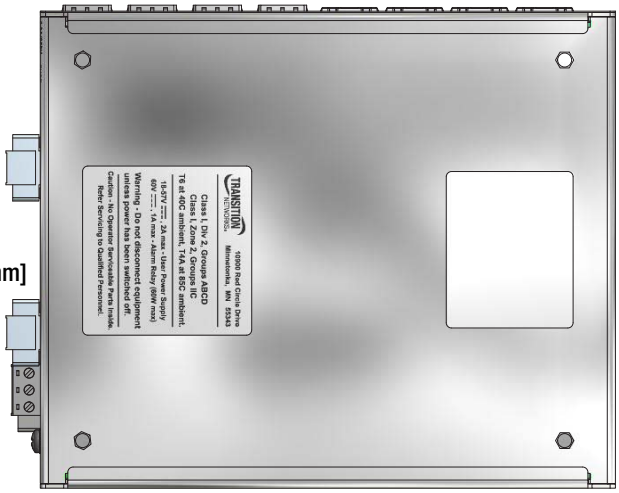


IND-3284-L

IND-3284-L





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