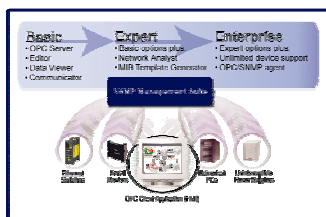# Industrial Ethernet Switch

16- and 18-port managed in-cabinet switches

Features

- Managed Industrial Ethernet switch
    - 16-port version has 16 copper RJ45 ports (auto-detecting 10/100 Mbps)
    - 18-port version has 16 copper RJ45 ports and 2 ports which can be configured as copper RJ45 or fiber optic (auto-detecting 10/100/1000 Mbps)
- DIN rail or direct panel mounting
- Auto-polarity protection and auto-cross-over for quick and easy plug & play connections
- High performance managed Industrial Ethernet switch has advanced features and real security
    - RSTP for fast redundant ring
    - SNMP v1 and v2 network management, SNMP v3 authentication and encryption for security
    - IGMP v1 and v2 for IP multicast filtering
    - Priority QoS
    - RMON and port mirroring for advanced diagnostics
- Dual (redundant) power inputs with industrial spike and surge protection

SNMP Management Suite

- Real-time analysis and network performance management
- Accessibility and monitoring of power supplies, PLCs and unmanaged devices
- Network view and control from your HMI interface

DRL-3F0
16-ports

DRL-3H Series
18-ports

Overview

Ethernet switches allow all devices to transmit simultaneously, without collision. This is essential for enabling deterministic delivery of time-critical information. Switches are intelligent devices, keeping track of device locations; this allows messages to be transmitted only from the necessary port, improving performance of the network.

BradCommunications™ Direct-Link™ Industrial Ethernet managed switches are available with many features to suit your specific requirements. Managed switches are equipped with IGMP snooping, VLAN and QoS for prioritization and provide the ideal platform for your Industrial Ethernet network. Redundant ring network technology, advanced network management, easy configuration and robust mechanical formats are all supported.

The DRL-3F0 has 16 copper RJ45 ports and the DRL-3H series has 18 ports allowing the user to choose from various combinations of copper RJ45 and/or fiber optic ports.

SNMP Management Suite

Comprehensive Network Data Available
Direct-Link Industrial Ethernet managed switches generate comprehensive SNMP messages that provide information on switch performance, configuration and alarm status. The Direct-Link SNMP Management Suite enables users to access SNMP messages from the managed switches and other SNMP capable devices including power supplies and PLCs. This provides system-wide monitoring and trouble-shooting of network performance.

Easy Integration with Existing HMI Tools
Raw SNMP network data is difficult to interpret and users may not have the necessary software tools. Direct-Link SNMP Management Suite converts SNMP messages into OPC tags that are easily incorporated into, and portrayed by HMI OPC client software (e.g. Wonderware® InTouch®, ICONICS GENESIS®, Rockwell Automation® RSView® , GE Fanuc iFIX® and CIMPLICITY®, and Siemens WinCC® HMI).

Woodhead

BradCommunications™

Technical Information

General	16 / 18 Ethernet ports including Gigabit	Environmental	DIN rail or direct panel mount
Ethernet protocols supported	IEEE 802.3 protocols	Power input	Redundant input pins
RJ45 ports (shielded)	10/100 BaseTX	Input power @ 24 VDC	7 W (typical with all ports active)
RJ45 speed (10 or 100 Mbps)	Auto-negotiation	Input voltage (all models)	10-30 VDC (continuous)
RJ45 MDI/MDIX	Auto-crossover	Transient protection	15,000 watts peak
RJ45 TD and RD polarity	Auto-polarity	Spike protection	5,000 watts (10 times for 10 µS)
Typical latency for 10 Mbps ports	16 µs + frame time (varies on load & settings)	Ethernet isolation	1500 VRMS 1 minute
Typical latency for 100 Mbps ports	5 µs + frame time (varies on load & settings)	Operating temperature	-40 to +75°C
Full or half duplex operation	Configurable	Storage temperature	-40 to +85°C
MAC addresses supported	8192	Humidity	5 to 95% RH (non-condensing)
Memory bandwidth	32 Gbps	Vibration	IEC68-2-6
"OK" alarm output	For power & operational status	Electrical safety	UL508/CSA C22, EN61010-1
Voltage	Same as switch input voltage	EMI emissions	FCC part 15, ICES-003, EN55022
Maximum current output	0.5 Amp	EMC immunity	IEC61326-1
Packaging	Lexan & aluminum case IP30 protection	Hazardous locations	UL1604, CSA C22.2/213 (Class 1, Div. 2) (pending)

Ordering Information

Part Number	Product Description
DRL-3F0	Industrial 16-port Ethernet switch, managed, with 16 copper RJ45 connections
DRL-3H0	Industrial 18-port Ethernet switch, managed, with 18 copper RJ45 connections
DRL-3H1-MLC	Industrial 18-port Ethernet managed switch, 17 RJ45, 1 multi mode 10/100/1000 Base FX, LC connector, redundant power
DRL-3H1-SLC	Industrial 18-port Ethernet managed switch, 17 RJ45, 1 single mode 10/100/1000 Base FX, LC connector, redundant power
DRL-3H2-MLC	Industrial 18-port Ethernet managed switch, 16 RJ45, 2 multi mode 10/100/1000 Base FX, LC connector, redundant power
DRL-3H2-SLC	Industrial 18-port Ethernet managed switch, 16 RJ45, 2 single mode 10/100/1000 Base FX, LC connector, redundant power
DRL-EDS-OPC-BSC	SNMP data server, basic, OPC version 2.0, up to 50 devices
DRL-EDS-OPC-EXP	SNMP data server, expert, OPC version 2.0, up to 50 devices With network analyst and template generator
DRL-EDS-OPC-ENT	SNMP data server, enterprise, OPC version 2.0, unlimited devices With network agent

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Ethernet Switches