



BradCommunications™ Direct-Link™ Industrial Ethernet switches intelligently route Ethernet messages, eliminating collisions and providing deterministic performance.

## Industrial Ethernet Switch

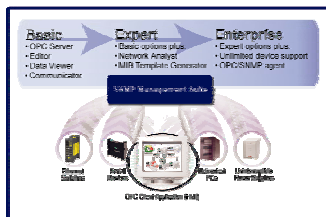
16- and 18-port managed in-cabinet switches

### 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).

# Industrial Ethernet Switch



## Technical Information

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

## Ordering Information

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

Ethernet Switches

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Reference Number: DW2007232 Date Published: January 2008

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