

Direct-Link™ Switches Overview

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



OVERVIEW

Brad® now offers a complete family of Industrial Ethernet switches for managed and unmanaged applications:

- 5-, 8- and 9-port configurations support both copper and fiber wiring
- Unique ergonomic design with DIN rail or panel mount option using a dual-clip system for quick and easy installation
- Small footprint in IP30 industrial package
- Supports all standard 802.3 protocols
- Redundant, dual-DC power inputs

Series 200 - Unmanaged Switches

Direct-Link Industrial Ethernet unmanaged switches provide enhanced performance allowing you to achieve real-time deterministic operation of your Ethernet network.

- Plug-and-play -- no configuration required
- Best value for reducing network collisions



Series 300 - Managed Switches

Direct-Link Industrial Ethernet managed switches offer many features to meet your network management and diagnostic needs.

Advanced Network Management

- Rapid Spanning Tree Protocol (RSTP) for fault-tolerant loops
- VLAN (port & tag based) for traffic segregation
- Messaging filtering to stop multi-cast storms (IGMP snooping)
- Priority queuing for real-time performance (QoS)
- Web-browser interface

Comprehensive Network Diagnostics

- RMON and port mirroring
- SNMP agent v1, v2 and v3 (for extra security)
- SNMP Management Suite software



SNMP Management Suite

This diagnostic software tool, based on OPC technology, works with the existing HMI application running on a PC. Direct-Link SNMP MS converts SNMP agents being sent to the PC from the Direct-Link Industrial Ethernet switch into OPC tags, which can then be easily displayed in the HMI application.

- Real-time network analysis
- Pre-built tag databases
- SNMP network analyst
- SNMP traps support
- Tag filtering



Switch Accessories

- DB9 to RJ45 connector
- Copper-to-fiber wiring converters





SPECIFICATIONS

Ethernet protocols supported:	IEEE 802.3 protocols	“OK” output: managed only:	power & operational status
RJ45 ports (shielded):	10 BaseT / 100 BaseT	Voltage: managed only:	same as switch input voltage
RJ45 speed (10 or 100 Mbps):	Auto-negotiation	Maximum current output: managed only:	0.5 Amp
RJ45 MDI/MDIX and TD/RD:	Auto-crossover & Auto-polarity	Mounting:	DIN rail or panel mount
Fiber optic port wavelength:	1300 nm center	Input power:	Typical - all ports active at 100 Mbps 3.6W to 6.3W (refer to user's manual)
Fiber multi-mode Optimal fiber cable: Maximum distance (full duplex):	62.5/125µm (SC or ST connector) 4 km	Input voltage:	10 - 30 VDC (continuous)
Fiber single-mode Optimal fiber cable: Maximum distance (full duplex):	9/125 µm (SC or ST connector) 20 km	Ethernet isolation:	1500 VRMS 1 minute
Typical latency for 10 Mbps ports: managed only:	16 µs + frame time (varies on load & settings)	Operating temperature range:	-10 to 60°C (14 to 140°F)
Typical latency for 100 Mbps ports:	5 µs + frame time (varies on load)	Storage temperature range:	-40 to 85°C (-40 to 185°F)
Full or half duplex operation:	RJ45 - full / half duplex Fiber - full duplex	Humidity (non-condensing):	5 to 95% RH
MAC addresses supported: unmanaged: managed:	1024 (5-port) / 2048 (8-port) 2048	Vibration:	IEC68-2-6
Dimensions:	Height - 142.24mm (5.60") Depth - 102.36mm (4.03") Width - 5-port: 27.18mm (1.07") 8- & 9-port: 38.74mm (1.525")	Electrical safety:	EN61010-1
		EMI emissions:	FCC part 15, ICES-003, EN55011
		EMC immunity:	IEC61326
		UL approval:	ML file: E205563
		Packaging:	IP30 protection

ORDERING INFORMATION

DRL-002	DB9 to RJ45 connector (configuration port)
DRL-111-xxx	Industrial Ethernet to fiber rail converter, 1 RJ45, 1 fiber
DRL-241-xxx	Industrial 5-port Ethernet switch, unmanaged, 4 RJ45, 1 fiber
DRL-250	Industrial 5-port Ethernet switch, unmanaged, 5 RJ45
DRL-280	Industrial 8-port Ethernet switch, unmanaged, 8 RJ45
DRL-281-xxx	Industrial 9-port Ethernet switch, unmanaged, 8 RJ45, 1 fiber
DRL-290	Industrial 9-port Ethernet switch, unmanaged, 9 RJ45
DRL-332-xxx	Industrial 5-port Web managed Ethernet switch, managed, 3 RJ45, 2 fiber
DRL-350	Industrial 5-port Ethernet switch, managed, 5 RJ45, redundant power supply
DRL-362-xxx	Industrial 8-port Web managed Ethernet switch, managed, 6 RJ45, 2 fiber
DRL-380	Industrial 8-port Ethernet switch, managed, 8 RJ45
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

Complete part numbers with "xxx"
using this reference chart

