IP20 Ethernet Switches and Media Converter

For industrial and harsh commercial environments where the need for IP 67 connectivity is not required, Ethernet switching components can be housed in a protective controls enclosure. However, the vibration and temperature operating ranges offered by standard datacoms switches and media converters are often not sufficient to perform reliably in many applications leading to the risk of data loss, production or system downtime, and the need for often costly repair and maintenance.

The range of Woodhead Connectivity IP20 DIN rail mount Ethernet switches and copper to fibre media converter have been designed to provide reliable performance while being subjected to extremes of temperature and vibration. Where an IP67 rated connection is required, external Ethernet enabled field devices or other enclosures can be connected to the switch by fitting one of the range of RJ-Lnxx bulkhead receptacles to the enclosure wall. Woodhead's RJ-45 and fibre optic connectors complete the connectivity package.

IP20 Ethernet Switches

Designed for standard DIN 50022 rail or screw mounting for quick, simple installation in an industrial enclosure, the switches are available in both 5 and 9 port versions. The dedicated uplink port can be specified for use with either copper (RJ-45) or fibre (SC) duplex connecters to suit network design. An extended temperature operating range of -40ºC to 85ºC allows use in extreme conditions, without the need for costly climate controls. The switches are also Class 1, Div2 rated for use in hazardous environments. Unmanaged Store & forward switch with address auto learning and 10/100 auto-negotiation enhances bandwidth efficiency, aiding determinism for control applications. No programming required allowing the switches to be installed and carrying data in minutes.

IP20 Media Converter

Where it is uneconomic or impractical to install a complete fibre optic network, the RJ-Lnxx Media Converter enables a fiber backbone to be run into the industrial enclosure by providing an interface to a local copper network. This DIN rail mount unit features one fibre (SC) and two copper (RJ-45) ports and is designed to withstand the extremes of temperature and vibration often found in an industrial environment.

Specifications

Electrical:

Required Power:	10 – 30 V DC
Power Consumption:	1.9 Watts Typical
Network Isolation:	1200V RMS for 1 min.

Environmental/Mechanical:

Operating Temperature:	-40ºC to +85ºC
Humidity:	5 to 95% (non-condensing)
Power Connection:	3 pole screw terminal
Environmental Rating:	IP20
Electrical Safety:	UL 508
Hazardous Location:	UL 1604, CSA 22.2/213 (Class 1, Div.2)
EMI Emissions:	FCC Part 15, Class B
EMC Immunity:	EN61326-1
Vibration Resistance:	IEC68-2-6

Network:

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Copper Ports:	Shielded RJ-45, 10/100BaseT(X) autonegotiate
Fibre Port:	Multi-Mode SC, 100BaseFX, 1300 nm centre
Ethernet Standards:	IEEE 802.3, 802.3U, 802.3X
Ethernet Protocols:	All standard IEEE 802.3 protocols
Speed per Port:	10 or 100Mbs (half duplex)
	20 or 200Mbs (full duplex)
Buffers:	1024,128 Byte buffers available
Broadcast Storm Protection:	Broadcasts limited to 25% of available bandwidth
Flow Control:	Supported for both transmit and receive
Back Pressure Function:	Inhibit stations from transmitting
Total Bandwidth:	1.4Gbps
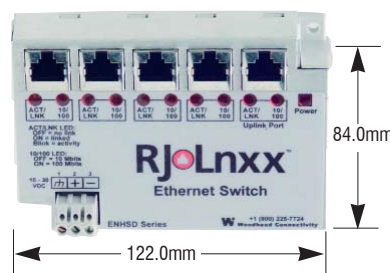
Part Number   Description
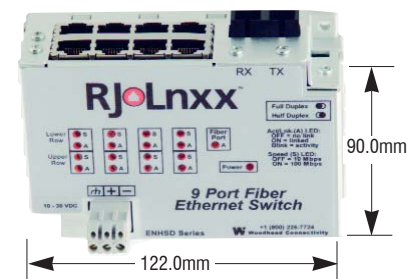ENHSDURR5 Ethernet Switch, 5 x RJ-45 Ports
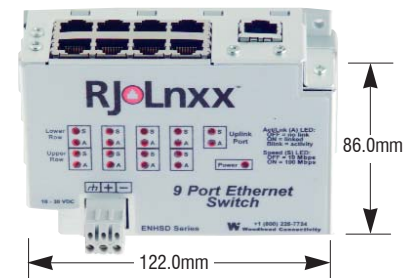
Part Number   Description
ENHSDURR9 Ethernet Switch, 9 x RJ-45 Ports
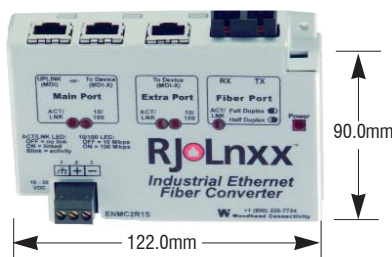
Part Number   Description
ENMC2R15   Media Connector, 3 x RJ-45 Ports, 1 x Duplex SC Port
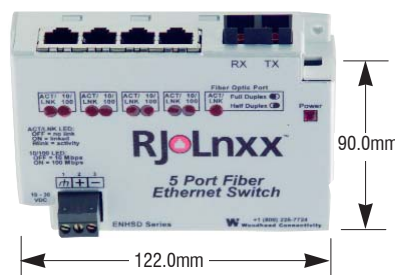
Part Number   Description
ENHSDURS5 Ethernet Switch, 4 x RJ-45 Ports 1 x Duplex SC Port

Part Number   Description
ENHSDURS9 Ethernet Switch, 8 x RJ-45 Ports 1 x Duplex SC Port

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