NE820
ABB Ability™ Symphony® Plus Hardware Selector

NE820 is an Industrial switch made for harsh environments. Due to our multi-rate SFP solution, the switch can be used in either 100 Mbit or Gigabit networks. Our unique FRNT (Fast Recovery of Network Topology) technology is the fastest protocol on the market to re-configure a network in case of any link or hardware failure. That is why NE820 is also used in safety-critical applications such as tunnels, traffic signal control, and railway systems.

Installations in harsh environments and places with heavy electrical interference require the use of reliable media. NE820 provides a number of solutions using fiber optic transceivers. Multi- or single-mode transceivers can be used to build point-to-point or redundant ring networks with ranges up to 120 km between each switch. Our BIDI transceiver, which transmits and receives data on a single fiber can be used in applications where the number of fiber cores is limited.

Real-time properties are implemented in the switch in order to achieve determinism for real-time critical applications. NE820 supports QoS (Quality of Service) with four priority queues and strict priority scheduling as well as HoL (Head of Line Blocking Prevention). All to assure that the data network is deterministic.

Features and benefits

- NE820 has redundant power supply and alarm function
- Wide operating voltage range (16 VDC to 60 VDC)
- Digital IO for monitoring
- Console port for management using CLI
- USB port for easy save and load system configuration
- 3 x RJ-45 Ethernet 1000 BaseTX connectors
- Status LED's

More info

Product title	Article number	Type	Link speed (Mbit/s)	Indicative range (km)	Power budget (dB)	TX/RX wavelength (nm)
PT801	3BSE080214R1	Multi mode	100	2	20	1310/1310
PT802	3BSE080215R1	Single mode	100	20	17	1310/1310
PT803	3BSE080223R1	Single mode, BiDi	100	20	18	1310/1550
PT804	3BSE080224R1	Single mode, BiDi	100	20	18	1550/1310
PT805	3BSE080216R1	Single mode	100	40	30	1310/1310
PT806	3BSE080227R1	Single mode, BiDi	100	40	26	1310/1550
PT807	3BSE080228R1	Single mode, BiDi	100	40	26	1550/1310
PT808	3BSE080217R1	Single mode	100	80	30	1550/1550
PT809	3BSE080235R1	Single mode, BiDi	100	80	29	1310/1550
PT810	3BSE080236R1	Single mode, BiDi	100	80	35	1550/1310
PT811	3BSE080218R1	Single mode	100	120	35	1550/1550
PT812	3BSE080233R1	Single mode, BiDi	100	120	32	1550/1490
PT813	3BSE080234R1	Single mode, BiDi	100	120	32	1490/1550
PT814	3BSE080232R1	RJ45	10/100	0.1	-	-
PT831	3BSE080222R1	Multi mode	1000	0.3–0.55	9	850/850
PT832	3BSE080225R1	Multi mode	1000	1–2	1	1310/1310
PT833	3BSE080219R1	Single mode	1000	10	11	1310/1310
PT834	3BSE080229R1	Single mode, BiDi	1000	20	15	1310/1490
PT835	3BSE080230R1	Single mode, BiDi	1000	20	15	1490/1310
PT836	3BSE080220R1	Single mode	1000	50	20	1550/1550
PT837	3BSE080221R1	Single mode	1000	80	24	1550/1550
PT838	3BSE080231R1	Single mode	1000	110	30	1550/1550
PT839	3BSE080226R1	RJ45	1000	0.1	-	-

General info

Article number	3BSE080208R1
Ethernet TX 10/100	8 ports
Ethernet TX 10/100/1000	7 ports
Ethernet SFP	4 x 10/100/1000 Mbit/s
Network redundancy	Fast reconfiguration of network typology (FRNT)
Managed	Managed
Mounting	DIN
Layer	Layer 2
Firewall	No

Detailed data

Operating Voltage	16 to 60 VDC redundant power input
Rated Current	930 (1120*) mA @ 20 VDC 380 (450*) mA @ 48 VDC
Digital I/O	1 x 4-ports detachable screw terminal
Console	1 x USB Micro-B connector

Environment and certification

Degree of protection	IP40
Operating Temperature	−40 to +70 °C
Temperature Storage	−50 to +85 °C
Marine certificate	DNV
G3 compliant	Compliant
RoHS compliance	EN 50581:2012
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions

Dimension (WxHxD)	175 x 105 x 122 mm
Weight	2.2 kg (4.85 lbs.)

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