

# NE820

## ABB Ability™ System 800xA® 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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