

BE Flat Line



6-Port Switch unmanaged



6-Port Switch lite managed

Target markets

Machinery & Robotics

Automation Technology

Industrial Network Infrastructure

Wind Energy, Solar Energy

Process Industry

Industrial Applications

General description

The BE Flat Line Fast Ethernet Switch family is available as unmanaged and lite managed device. The low cost switches are equipped with 6 fast ethernet ports in a super flat aluminium housing and allow for cost efficient and quick expansion and/or reconstruction of network infrastructures. Due to the extremely flat and compact (40x65x105 mm) design, these switches can be used in installations where space is restricted towards the cable connection at the front. The switches are designed with an integrated DIN rail mounting to install it easy and fast in every cabinet. Due to redundant power supply and the extended temperature range from -40° to +70°C the switch is ideal for industrial applications.

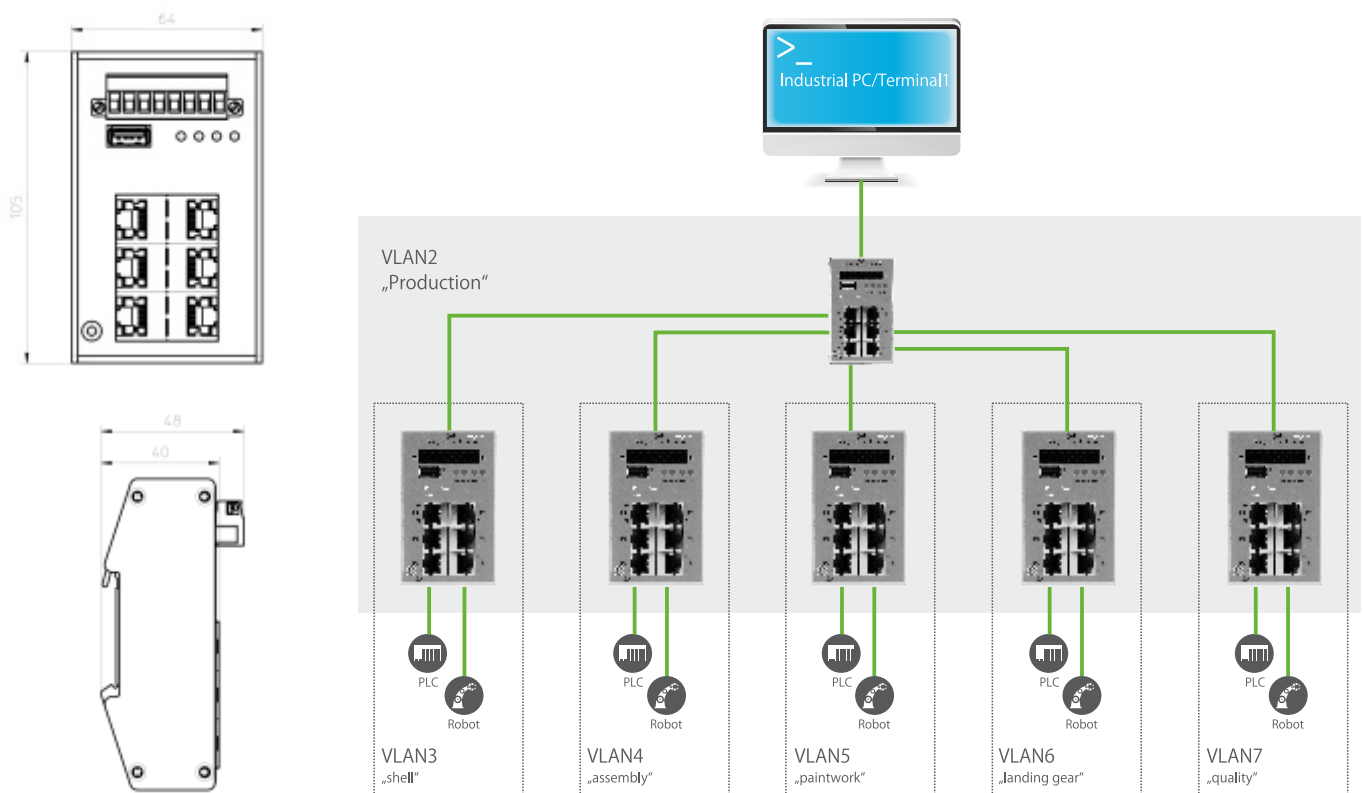
Key-Features

- Industrial temperature range from -40° to +70°C
- 6 Fast ethernet ports
- RJ45 connectors
- Twisted pair ethernet cable
- Flat, compact aluminium DIN rail housing
- Redundant power supply
- Galvanically isolated digital input (LM)
- Increased machine safety through fault-signaling contact (LM)
- Surge protection and reverse polarity protection
- Auto-negotiation
- Non-blocking switch architecture in accordance with IEEE 802.3
- Easy to use plug&play ethernet switches
- Great price-performance ratio
- Key management feature for a small price (LM)
- Increased machine uptime through easy installation
- User-friendly web interface for quick configuration (LM)
- Adjustment of VLANs, off function and prioritization of individual ports (LM)
- Design-In for OEM look and feel
- Functions not required are free of charge
- Cost-efficient
- High quality due to development and production in Germany

Lite Management

The entry into the world of managed switches proves to be difficult for users in the field. The installation often requires special IT-knowledge. Manuals of managed devices often include several hundred pages. With the Lite Management Concept the BE Flat Line Lite Managed can be configured quickly and easily. Therefore robot cells, production lines, machines or solar farms can be used as Plug&Play and put into operation quickly. Machine uptime can be maximized by simple installation of industrial networks.

The Lite Managed Switch sets new standards in terms of size, usability and price-performance ratio. The BE Flat Line Lite Managed Switch is ideal for easy, fast and secure installations in the smallest areas and closes the gap between unmanaged and fully managed devices. When in tight spaces decentralized networks have to be installed quickly, easily and without any special IT skills the BE Flat Line Lite Managed is the best choice. It creates added value whenever unmanaged switches offer insufficient configurations and fully managed switches are oversized and too expensive. With the integrated USB interface firmware updates can be installed quickly and easily. An integrated, programmable error message contact provides additional machine safety. The switch has lite management functions. Using the very intuitive and easy web interface, network configurations can be made quickly and easily, without any special IT skills. Inactive ports can be turned off selectively to prevent abuse and create more security. The Lite Managed Switch provides features such as network diagnostics, QoS (Quality of Service) port prioritization and port shut down functions as well as network segmentation with VLAN settings.



Order information

Order no.	Product-Name	Description	RJ45-Ports
B11220	BE-6-UM-FL	6-Port Fast Ethernet unmanaged Switch	6
B12220	BE-6-LM-FL	6-Port Fast Ethernet lite managed Switch	6

Technical data

Type of Device	BE-6-UM-FL	BE-6-LM-FL
Ethernet Ports		
Number of Ethernet Ports	6	6
Data rate per port 10/100 Mbit/s	■	■
Medium: Ethernet, fast ethernet, 10/100Base-TX, twisted pair (TP)	■	■
Cable: 0...100m, UTP/STP	■	■
Connector Type: RJ45	■	■
Port functions: Auto-negotiation, auto-crossing, auto-polarity	■	■
Switching Architecture: store and forward	■	■
Network structure: Line/Star, cascade-depth: any	■	■
Display: 1x link/activity LED, 1x speed LED per port	■	■
Power Ports		
Number of Ports: 2, redundant power supply, no priority, dual input, reverse polarity protection	■	■
Operation Voltage: DC: 9.6V...60V; AC: 18V...30V	■	■
Power Consumption: 3,0W	■	■
Number of Fault Contacts	□	1
Fault Contact Features: Isolated, programmable, max. 2A/60VA	□	■
Number of Digital Inputs	□	1
Digital Input Levels: Low: 0...5V; High: 11V...30V; Isolation from all other circuits 1kV	□	■
Connector: 8pole header (male)	■	■
Configuration Ports		
Interface: USB2.0	□	■
Data rate: 12Mbit/s	□	■
Operating modes: Host, device	□	■
Functions: Firmware update, system logging, configuration via notebook/PC or USB flash drive	□	■
Connector: USB Type A	□	■
Software		
User Interface: Web GUI, PC GUI	□	■
Configuration: Auto-configuration via USB, configuration file in readable format, web based configuration	□	■
Security: System logging, configurable password, user management, port disabling	□	■
Management: HTTP, traps	□	■
Diagnostics: Cycling system and port monitoring, display of port status and configuration via user interface, port mirroring, port trunking/link aggregation	□	■
Filter: Fast aging, broadcast storm protection, 16 port based VLAN, QoS (Quality of Service)	□	■
Environment		
Operating temperature: -40°C ... +70°C	■	■
Storage temperature: -40°C ... +85°C	■	■
Rel. Humidity: 10%...90%, noncondensing	■	■
Mechanical		
Overall size: 40 mm x 65 mm x 105 mm	■	■
Enclosure: IP20 (IP40 with all connectors) DIN rail mounting	■	■
Weight	300 g	300 g
Other: Fanless design	■	■
Approvals		
Standards:	CE, FCC, EN61131	CE, FCC, EN61131, EN50155, EN50121
Features in preparation: High voltage power supply, PoE/PoE+, gigabit ports, bypass relay		

Accessories

Article-No. BE	Description
SFP Transceiver	
B 2001	Dual SFP, Single Mode, 1310nm, 155M, 20km
B 2002	BiDi SFP, Single Mode, TX1550nm RX1310nm, 155M, 20km
B 2003	BiDi SFP, Single Mode, TX1310nm RX1490nm, 1.25G, 10km
Cable; M12 d-coded straight to RJ45 straight	
B 1231-1m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to RJ45, 1m
B 1231-2m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to RJ45, 2m
B 1231-3m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to RJ45, 3m
B 1231-5m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to RJ45, 5m
B 1231-10m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to RJ45, 10m
B 1231-20m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to RJ45, 20m
Cable; M12 d-coded straight to M12 straight	
B 1233-1m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR, 1m
B 1233-2m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR, 2m
B 1233-3m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR, 3m
B 1233-5m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR, 5m
B 1233-10m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR, 10m
B 1233-20m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR, 20m
Cable; M12 x-coded straight to M12 straight	
B 1255-3m	Ethernet Cable, x-coded-8-pol, 10/100/1000Mbit, M12 to M12, 3m
B 1255-5m	Ethernet Cable, x-coded-8-pol, 10/100/1000Mbit, M12 to M12, 5m
B 1255-10m	Ethernet Cable, x-coded-8-pol, 10/100/1000Mbit, M12 to M12, 10m
B 1255-20m	Ethernet Cable, x-coded-8-pol, 10/100/1000Mbit, M12 to M12, 20m
Cable; M12 d-coded straight to M12 angled	
B 1234-1m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR 1m
B 1234-2m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR 2m
B 1234-3m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR 3m
B 1234-5m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR 5m
B 1234-10m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR 10m
B 1234-20m	Ethernet Cable CAT5e, d-coded-4-pin, 10/100 Mbit, M12 to M12, PUR 20m
Cable; RJ45 straight to RJ45 straight; green	
B 1211-1m	Ethernet Cable CAT5e, 10/100/1000Mbit, RJ45 zu RJ45, 1m
B 1211-3m	Ethernet Cable CAT5e, 10/100/1000Mbit, RJ45 zu RJ45, 3m
B 1211-5m	Ethernet Cable CAT5e, 10/100/1000Mbit, RJ45 zu RJ45, 5m
B 1211-10m	Ethernet Cable CAT5e, 10/100/1000Mbit, RJ45 zu RJ45, 10m
B 1211-20m	Ethernet Cable CAT5e, 10/100/1000Mbit, RJ45 zu RJ45, 20m
Accessories, Cables, Connectors, Covering Caps, USB, ...	
B 4001	Covering Cap for M12 Connector, IP 65, UL, Quantity=10 pieces
B 1401	USB Cable for M12 Connector to USB Typ A
B 5001	USB Stick, Transcend 4GB – Approved
B 1101	M12 Power Cable for X-Treme Line Switches, 1m, straight
B 1102	M12 Power Cable for X-Treme Line Switches, 1m, angled
B 6001	CAT6A RJ45 Connector field plug pro
B 6002	CAT6A RJ45 Connector field plug pro 360 variable
24V Single Phase Power Supply for DIN-Rail	
B3001	Power Supply 24 V, 1A – slim and compact DIN-Rail housing
B3002	Power Supply 24 V, 2,5A - slim and compact DIN-Rail housing
B3003	Power Supply 24 V, 3,2A - slim and compact DIN-Rail housing
B3005	Power Supply 24 V, 5A - slim and compact DIN-Rail housing
B3010	Power Supply 24 V, 10A - slim and compact DIN-Rail housing