



Product information MACH1000, 2-24 ports Fast Ethernet PoE switch - MAR1022-99TTTTTTMMMMMMMMMMMM99999999UGGHPHH09.0.

Industrial Ethernet:Ruggedized Switches:Fast/Gigabit Ethernet Control Cabinet Switches:PoE Control Cabinet Switches:with Firmware Release 9:MACH1000, 2-24 ports Fast Ethernet PoE switch
<https://www.e-catalog.beldensolutions.com:443/link/57078-24455-49846-49997-80037-438059-438060/en/MAR1022-99TTTTTTMMMMMMMMMMMM99999999UGGHPHH09.0/uistate>



Industrial managed Fast Ethernet Switch, 19" rack mount, fanless Design, Power over Ethernet, 4 Ports, according to IEEE 802.3, store-and-forward-switching

Delivery informations

Availability available

Product description

Description Industrial managed Fast Ethernet Switch, 19" rack mount, fanless Design, Power over Ethernet, 4 Ports, according to IEEE 802.3, store-and-forward-switching

Port type and quantity Fast-Ethernet ports in total: 16 x ports in total; 6 x Twisted Pair; 10 x Multimode SC;

Type MAR1022-99TTTTTTMMMMMMMMMMMM99999999UGGHPHH09.0.

Order No. MAR1022-99TTTTTTMMMMMMMMMMMM99999999UGGHPHH09.0.

More Interfaces

Power supply/signaling contact Power supply 1: power supply 3-pin spring clip, signal contact 2-pin spring clip; Power supply 2: power supply 3-pin spring clip, signal contact 2-pin spring clip, supports only PoE

V.24 interface 1 x RJ11 socket

USB interface 1 x to connect auto-configuration adapter ACA21-USB

Network size - length of cable

Twisted pair (TP) 0 m ... 100 m

Multimode fiber (MM) 50/125 µm 0 - 5000 m, 8 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB reserve, B = 800 MHz x km

Multimode fiber (MM) 62.5/125 µm 0 - 4000 m, 11 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB reserve, B = 500 MHz x km

Network size - cascading

Line - / star topology Any

Ring structure (HIPER-Ring) quantity switches 100 switches

Power requirements

Operating voltage Power supply 1: 120/250 VDC, 110/230 VAC; Power supply 2: 120/250 VDC, 110/230 VAC

Current consumption at 230 V AC Power supply 1 and 2: 150 mA (35W) max, if all ports are equipped with fiber

Software

Management Dual Software Image Support; TFTP; LLDP (802.1AB); LLDP-MED; SSHv1; SSHv2; V.24; HTTP; HTTPS; Traps; SNMP v1/v2/v3; Telnet

Diagnostics Management Address Conflict Detection; Address Relearn Detection; MAC Notification; Signal Contact; Device Status Indication; TCPDump; LEDs; Syslog; Port Monitoring with Auto-Disable; Link Flap Detection; Overload Detection; Duplex Mismatch Detection; Link Speed and Duplex Monitoring; RMON (1,2,3,9); Port Mirroring 1:1;Port Mirroring 8:1; Port Mirroring N:1; System Information; Self-Tests on Cold Start; Copper Cable Test; SFP Management; Configuration Check Dialog; Switch Dump

Configuration AutoConfiguration Adapter ACA11 Limited Support (RS20/30/40, MS20/30); Automatic Configuration Undo (roll-back); Configuration Fingerprint; BOOTP/DHCP Client with Auto-Configuration; DHCP Server: per Port; DHCP Server: Pools per VLAN; DHCP Server: Option 43; AutoConfiguration Adapter ACA21/22 (USB); HiDiscovery; DHCP Relay with Option 82; Command Line Interface (CLI); CLI Scripting; Full-featured MIB Support; Web-based Management; Context-sensitive Help

Security IP-based Port Security; MAC-based Port Security; Port-based Access Control with 802.1X; Guest/unauthenticated VLAN; RADIUS VLAN Assignment; Multi-Client Authentication per Port; MAC Authentication Bypass; Access to Management restricted by VLAN; HTTPS Certificate Management; Restricted Management Access; Appropriate Use Banner; SNMP Logging; Local User Management; Remote Authentication via RADIUS

Redundancy functions Advanced Ring Configuration for MRP; HIPER-Ring (Manager); HIPER-Ring (Ring Switch); Fast HIPER-Ring; Link Aggregation with LACP; Media Redundancy Protocol (MRP) (IEC62439-2); Redundant Network Coupling; Sub Ring Manager; RSTP 802.1D-2004 (IEC62439-1); MSTP (802.1Q); RSTP Guards; RSTP over MRP

Filter PoE (802.3AF); PoE+ (802.3AT); Manual Cable Crossing

Industrial Profiles EtherNet/IP Protocol; IEC61850 Protocol (MMS Server, Switch Model); PROFINET IO Protocol

Time synchronisation PTPv2 Transparent Clock two-step; PTPv2 Boundary Clock; Buffered Real Time Clock; SNTP Client; SNTP Server



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| Switching | Disable Learning (hub functionality); Independent VLAN Learning; Fast Aging; Static Unicast/Multicast Address Entries; QoS / Port Prioritization (802.1D/p); TOS/DSCP Prioritization; Egress Broadcast Limiter per Port; Flow Control (802.3X); Jumbo Frames; VLAN (802.1Q); GARP VLAN Registration Protocol (GVRP); Double VLAN Tagging (QinQ); Voice VLAN; GARP Multicast Registration Protocol (GMRP); IGMP Snooping/Querier (v1/v2/v3) |
| Ambient conditions | |
| Operating temperature | -40 °C ... 85 °C |
| Storage/transport temperature | -40 °C ... 85 °C |
| Relative humidity (non-condensing) | 10 % ... 95 % |
| Protective paint on PCB | No |
| Mechanical construction | |
| Dimensions (W x H x D) | 445 mm x 44 mm x 308 mm |
| Mounting | 19" control cabinet |
| Weight | appr. 5 kg |
| Protection class | IP30 |
| Mechanical stability | |
| IEC 60068-2-27 shock | 15 g, 11 ms duration, 18 shocks |
| IEC 60068-2-6 vibration | 1 mm, 2 Hz - 13.2 Hz, 90 min.; 0.7g, 13.2 Hz - 100 Hz, 90 min.; 3.5 mm, 3 Hz - 9 Hz, 10 cycles, 1 octave/min.; 1g, 9 Hz - 150 Hz, 10 cycles, 1 octave/min. |
| EMC interference immunity | |
| EN 61000-4-2 electrostatic discharge (ESD) | 8 kV contact discharge, 15 kV air discharge |
| EN 61000-4-3 electromagnetic field | 35 V/m (80 - 2700 MHz); 1kHz, 80% AM |
| EN 61000-4-4 fast transients (burst) | 4 kV power line, 4 kV data line |
| EN 61000-4-5 surge voltage | Power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line IEC61000-4-5: power line 5kV (line/earth) |
| EN 61000-4-6 conducted immunity | 2,5 kV (line/earth), 1 kV (line/line) (1MHz) |
| EN 61000-4-16 mains frequency voltage | 30V, 50Hz continuous; 300V, 50Hz 1s |
| EMC emitted immunity | |
| FCC CFR47 Part 15 | FCC CFR47 Part 15 Class A |
| EN 55022 | EN 55022 Class A |
| Approvals | |
| Safety of industrial control equipment | cUL 508 (pending) |
| Hazardous locations | cUL 1604 Class1 Div 2 (pending) |
| Germanischer Lloyd | Germanischer Lloyd (in preparation) |
| Substation | IEC 61850-3; IEEE 1613 |
| Scope of delivery and accessories | |
| Scope of delivery | Device, operating manual |

For more information please contact:

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The complete information and data were available on user documentation. Mandatory information can only be obtained by a concrete query.