

## Product information

### MACH1000, Gigabit Ethernet switch 2-28 ports - MAR1030-40VVVVVVVVVVMMMMMMMMMMMMMMSCCHPHH08.0.

Industrial Ethernet:Ruggedized Switches:Fast/Gigabit Ethernet Control Cabinet Switches:Gigabit Ethernet Control Cabinet Switches:with Firmware Release 8:MACH1000, Gigabit Ethernet switch 2-28 ports	
<a href="http://www.e-catalog.beldensolutions.com/link/57078-24455-49846-49997-80036-373309-373312/en/MAR1030-40VVVVVVVVVVMMMMMMMMMMMMMMSCCHPHH08.0/uistate">http://www.e-catalog.beldensolutions.com/link/57078-24455-49846-49997-80036-373309-373312/en/MAR1030-40VVVVVVVVVVMMMMMMMMMMMMMMSCCHPHH08.0/uistate</a>	
<b>Name</b>	MACH1000, Gigabit Ethernet switch 2-28 ports
	
	Industrial managed Fast/Gigabit Ethernet Switch, 19" rack mount, fanless Design, according to IEEE 802.3, store-and-forward-switching
<b>Delivery informations</b>	
<b>Availability</b>	available
<b>Product description</b>	
<b>Description</b>	Industrial managed Fast/Gigabit Ethernet Switch, 19" rack mount, fanless Design, according to IEEE 802.3, store-and-forward-switching
<b>Port type and quantity</b>	Gigabit-Ethernet ports in total: 4; 4 x GE-SFP-Slot; Fast-Ethernet ports in total: 24 x ports in total; 12 x Multimode SC, 12 x Singlemode SC;
<b>Type</b>	MAR1030-40VVVVVVVVVVMMMMMMMMMMMMMMSCCHPHH08.0.
<b>Order No.</b>	MAR1030-40VVVVVVVVVVMMMMMMMMMMMMMMSCCHPHH08.0.
<b>More Interfaces</b>	
<b>Power supply/signaling contact</b>	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
<b>V.24 interface</b>	1 x RJ11 socket
<b>USB interface</b>	1 x to connect auto-configuration adapter ACA21-USB
<b>Network size - length of cable</b>	
<b>Multimode fiber (MM) 50/125 µm</b>	0 - 5000 m, 8 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB reserve, B = 800 MHz x km
<b>Multimode fiber (MM) 62.5/125 µm</b>	0 - 4000 m, 11 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB reserve, B = 500 MHz x km
<b>Single mode fiber (SM) 9/125 µm</b>	0 - 32,5 km, 16 dB Link Budget at 1300 nm, A = 0,4 dB/km, 3 dB reserve, D = 3,5 ps/(nm x km)
<b>Network size - cascading</b>	
<b>Line - / star topology</b>	Any
<b>Ring structure (HIPER-Ring) quantity switches</b>	100 switches
<b>Power requirements</b>	
<b>Operating voltage</b>	Power supply 1: 24/36/48 VDC; Power supply 2: 24/36/48 VDC
<b>Current consumption at 24 V DC</b>	Power supply 1 and 2: 1400 mA max, if all ports are equipped with fiber
<b>Software</b>	
<b>Management</b>	Serial interface, web-interface, SNMP V1/V2, HiVision file transfer SW HTTP/TFTP, LLDP-MED, Voice VLAN
<b>Diagnostics</b>	LEDs, log-file, syslog, relay contact, RMON, port mirroring 1:1 and n:1, egress/ingress traffic configurable, topology discovery 802.1AB, cable tester (TX), address conflict detection, network error detection, SFP diagnostic [temperature, optical input and output power (µW and dBm)], Trap for configuration saving and changing, duplex mismatch detection, disable learning, Port Monitor
<b>Configuration</b>	Comand line interface (CLI), TELNET, BootP, DHCP, DHCP option 82, HIDiscovery, easy device exchange with auto-configuration adapter ACA21-USB (automatic software and/or configuration upload), automatic script load from ACA21, integrated DHCP server per port, DHCP relay, automatic invalid configuration undo, Offline Configuration, SFP Whitelist, ARC automatic ring configuration (MRP), automatic port shutdown (link flapping), configuration signature (water marking), overload detection
<b>Security</b>	Port Security (IP und MAC) with multiple addresses (MAC 50 per port), SNMP V3, SSHv2, Authentication (IEEE802.1x), 802.1x Multi Client Authentication, Guest VLAN and Unauthenticated VLAN, Port based Radius VLAN assignment
<b>Redundancy functions</b>	HIPER-Ring, Fast HIPER-Ring, MRP, MSTP, RSTP - IEEE802.1D-2004, MRP and RSTP in parallel, link aggregation, multiple rings
<b>Filter</b>	QoS 4 classes, prioritisation (IEEE 802.1D/p), VLAN (IEEE 802.1Q), Voice VLAN (IEEE 802.1Q), Voice VLAN, shared VLAN learning, Q-in-Q double VLAN tagging, multicast IGMP v1/v2/v3 (snopping/querier), multicast detection unknown multicast, broadcast-, unicast-, multicast limiter, fast aging, GMRP IEEE 802.1D, Jumbo Frame Support
<b>Industrial Profiles</b>	EtherNet/IP and PROFINET (2.2 PDEV, GSDML Stand-alone generator, automatic device exchange) profiles included, configuration and diagnostic via automation software tools like e.g. STEP7, or Control Logix IEC61850 protocol (MMS Server, Switch Model)
<b>Time synchronisation</b>	SNTP Server, PTP / IEEE 1588, realtime clock with energy buffer
<b>Flow control</b>	Flow Control 802.3x, Port Priority 802.1D/p, Priority (TOS/DIFFSERV), Prio (MAC/IP), Prio Mapping (TOS Layer2), Traffic Shaping (Unicast, Multicast, Broadcast) Ingress / Egress

