

Product: [MACH102-8TP-R](#)

Managed 10-port Fast Ethernet 19" Switch with 2 media slots, redundant PSU



Product Description

26 port Fast Ethernet/Gigabit Ethernet Industrial Workgroup Switch (fix installed: 2 x GE, 8 x FE; via Media Modules 16 x FE), managed, Software Layer 2 Professional, Store-and-Forward-Switching, fanless Design, redundant power supply

Technical Specifications

Product description

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|-------------------------|--|
| Description: | 26 port Fast Ethernet/Gigabit Ethernet Industrial Workgroup Switch (fix installed: 2 x GE, 8 x FE; via Media Modules 16 x FE), managed, Software Layer 2 Professional, Store-and-Forward-Switching, fanless Design, redundant power supply |
| Part Number: | 943969101 |
| Port type and quantity: | Up to 26 Ethernet ports, thereof up to 16 Fast-Ethernet ports via media modules realisable; 8x TP (10/100 BASE-TX, RJ45) Fast Ethernet ports and 2 Gigabit Combo ports fix installed |

More Interfaces

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|---------------------------------|---|
| Power supply/signaling contact: | 1 x plug-in terminal block, 2-pin, output manual or automatic switchable (max. 1 A, 24 V DC bzw. 24 V AC) |
| V.24 interface: | 1 x RJ11 socket, serial interface for device configuration |
| USB interface: | 1 x USB to connect auto-configuration adapter ACA21-USB |

Network size - length of cable

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| Twisted pair (TP): | 0-100 m |
| Single mode fiber (SM) 9/125 µm: | Fast Ethernet: see SFP LWL module M-FAST SFP-SM/LC and M-FAST SFP-SM+/LC; Gigabit Ethernet: see SFP LWL module M-SFP-LX/LC |
| Single mode fiber (LH) 9/125 µm (long haul transceiver): | Fast Ethernet: see SFP LWL module M-FAST SFP-LH/LC; Gigabit Ethernet: see SFP LWL module M-SFP-LH/LC and M-SFP-LH+/LC |
| Multimode fiber (MM) 50/125 µm: | Fast Ethernet: see SFP LWL module M-FAST SFP-MM/LC; Gigabit Ethernet: see SFP LWL module M-SFP-SX/LC and M-SFP-LX/LC |
| Multimode fiber (MM) 62.5/125 µm: | Fast Ethernet: see SFP LWL module M-FAST SFP-MM/LC; Gigabit Ethernet: see SFP LWL module M-SFP-SX/LC and M-SFP-LX/LC |

Network size - cascadability

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| Line - / star topology: | any |
| Ring structure (HIPER-Ring) quantity switches: | 50 (reconfiguration time 0.3 sec.) |

Power requirements

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| Operating Voltage: | 100 - 240 VAC, 47 - 63 Hz (redundant) |
| Power consumption: | 13 W (without media modules) |
| Power output in BTU (IT)/h: | 44 (without media modules) |
| Redundancy functions: | HIPER-Ring, MRP, MSTP, RSTP - IEEE802.1D-2004, MRP and RSTP gleichzeitig, Link Aggregation, redundant 100 - 240 VAC power supply |

Software

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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), 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) |
| Redundancy: | 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, RSTP 802.1D-2004 (IEC62439-1), MSTP (802.1Q), RSTP Guards |
| Management: | Dual Software Image Support, TFTP, LLDP (802.1AB), LLDP-MED, SSHv1, SSHv2, V.24, HTTP, HTTPS, Traps, SNMP v1/v2/v3, Telnet |

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| 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 |
| Time synchronisation: | Buffered Real Time Clock, SNTP Client, SNTP Server |
| Industrial Profiles: | EtherNet/IP Protocol, PROFINET IO Protocol |
| Miscellaneous: | Manual Cable Crossing |

Ambient conditions

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| MTBF (MIL-HDBK 217F: Gb 25 °C): | (without media modules) 18.06 Years |
| Operating temperature: | 0-+50 °C |
| Storage/transport temperature: | -20-+85 °C |
| Relative humidity (non-condensing): | 10-95 % |

Mechanical construction

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| Dimensions (WxHxD): | 448 mm x 44 mm x 310 mm (without fixing bracket) |
| Weight: | 3.85 kg |
| Mounting: | 19" control cabinet |
| Protection class: | IP20 |

EMC interference immunity

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| EN 61000-4-2 electrostatic discharge (ESD): | 4 kV contact discharge, 8 kV air discharge |
| EN 61000-4-3 electromagnetic field: | 10 V/m (80-2700 MHz) |
| EN 61000-4-4 fast transients (burst): | 2 kV power line, 4 kV data line |
| EN 61000-4-5 surge voltage: | power line: 2 kV (line/earth), 1 kV (line/line), 4 kV data line |
| EN 61000-4-6 Conducted Immunity: | 10 V (150 kHz-80 MHz) |

EMC emitted immunity

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| EN 55022: | EN 55022 Class A |
| FCC CFR47 Part 15: | FCC 47CFR Part 15, Class A |

Approvals

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| Safety of industrial control equipment: | cUL 508 |
| Safety of information technology equipment: | cUL 60950-1 |

Scope of delivery and accessories

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| Accessories to Order Separately: | Fast Ethernet SFP modules, Gigabit Ethernet SFP modules, autoConfiguration Adapter ACA21-USB, terminal cable, Industrial Hivision Network Management software |
| Scope of delivery: | MACH100 device, terminal block for signal contact, 2 brackets with fasteningscrews (pre-assembled), housing feet - stick-on, non-heating appliance cable - Euro model |

Further Instructions

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|------------------------|---|
| Product Documentation: | https://www.doc.hirschmann.com |
| Certificates: | https://www.doc.hirschmann.com/certificates.html |

Variants

| Item # | Type |
|-----------|---------------|
| 943969101 | MACH102-8TP-R |

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| Update and Revision: | Revision Number: 0.140 Revision Date: 11-09-2022 |
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