Hirschmann Automation and Control GmbH

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A **BELDEN** BRAND

MACH102-24TP-F

Industrial Networking:Industrial Ethernet:MACH100:Switches

Delivery informations	
Availability	available
Document created at	22.05.2009
Product description	
Description	26 port Fast Ethernet/Gigabit Ethernet Industrial Workgroup Switch (2 x GE, 24 x FE), managed, Software Layer 2 Professional, Store-and-Forward-Switching, fanless Design
Port type and quantity	26 ports in total; 24x (10/100 BASE-TX, RJ45) and 2 Gigabit Combo ports
Type	MACH102-24TP-F
Order No.	943 969-401
More Interfaces	
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 to connect auto-configuration adapter ACA21-USB
Network size - length of cable	
Twisted pair (TP)	0 - 100m
Multimode fiber (MM) 50/125 µm	Fast Ethernet: cf. SFP LWL module M-FAST SFP-MM/LC; Gigabit Ethernet: cf. SFP LWL module M-SFP-SX/LC and M-SFP-LX/LC
Multimode fiber (MM) 62.5/125 µm	Fast Ethernet: cf. SFP LWL module M-FAST SFP-MM/LC; Gigabit Ethernet: cf. SFP LWL module M-SFP-SX/LC and M-SFP-LX/LC
Single mode fiber (SM)9/125 µm	Fast Ethernet: cf. SFP LWL module M-FAST SFP-SM/LC and M-FAST SFP-SM+/LC; Gigabit Ethernet: cf. SFP LWL module M-SFP-LX/LC
Single mode fiber (LH)9/125 µm (long haul transceiver)	Fast Ethernet: cf. SFP LWL modul M-FAST SFP-LH/LC; Gigabit Ethernet: cf. SFP LWL modul M-SFP-LH/LC and M-SFP-LH+/LC
Network size - cascadibility	
Line - / star topology	any
Ring structure (HIPER-Ring) quantity switches	50 (reconfiguration time < 0,3 sec.)
Power requirements	
Operating voltage	100 - 240 VAC, 47 - 63 Hz
Power outputin Btu (IT) h	55
Rated current	0.4 - 0.2 A
Power consumption	16 W
Software	
Management	serial Interface, web interface, SNMP V1/V2, HiVision file transfer SW HTTP/TFTP
Diagnostics	LEDs, log-file, syslog, signal contact, RMON (statistic, history, alarms, events), port mirroring, topology discovery 802.1AB, cable diagnostic
Configuration	Comand line interface (CLI), TELNET, BootP, DHCP, DHCP option 82, HIDiscovery, auto-configuration adapter (ACD11, ACA21-USB), Watchdog configuration; integrated DHCP server
Security	Port security (IP and MAC), SNMP V3, SSH, authentication (802.1x)
Redundancy functions	HIPER-ring (ring structure), MRP (IEC-ring functionality), RSTP 802.1D-2004, redundant network/ring coupling, dual homing, link aggregation
Filter	QoS 4 Klassen, Portpriorisierung (IEEE 802.1D/p), VLAN (IEEE 802.1Q), shared VLAN learning, Multicast (IGMP Snooping/Querier), Multicast Detection unknown Multicast, Broadcastlimiter, Fast Aging, Multicast GMRP IEEE 802.1D

Industrial Profiles	EtherNet/IP, PROFINET, configuration and diagnostic via automation software tools like e.g. STEP7, or Control Logix
Realtime	SNTP server, realtime clock with energy buffer
Flow control	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

Ambient conditions

Operating temperature	0° - +50°C
Storage/transport temperature	-20° - +85°C
Relative humidity (non-condensing)	10% to 95%
MTBF	13.26 years (MIL-HDBK-217F Gb 25°C)

Mechanical construction

Dimensions (W x H x D)	448 x 310 x 44 (without fixing bracket)
Mounting	19" control cabinet
Weight	3.85 kg
Protection class	IP20

EMC interference immunity

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

FCC CFR47 Part 15	FCC 47 CFR Part 15 Class A
EN 55022	EN 55022 Class A

Approvals

Safety of industrial control equipment	cUL 508 (pending)

Scope of delivery and accessories

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, CD-ROM with user manual, installation user manual
Accessories to order separately	Fast Ethernet SFP modules, Gigabit Ethernet SFP modules, autoConfiguration Adapter ACA21-USB, terminal cable, Industrial Hivision Network Management software