


## Data sheet

### MACH104-20TX-F - MACH104-20TX-F

Industrial Ethernet:Workgroup Switches:24 port Fast/Gigabit Ethernet Workgroup switch :MACH104-20TX-F	
Name	MACH104-20TX-F
	
<b>Delivery informations</b>	
Document created at	09-04-2010
Availability	available
<b>Product description</b>	
Description	24 port Gigabit Ethernet Industrial Workgroup switch (20 x GE TX Ports, 4 x GE SFP combo ports), managed, software Layer 2 Professional, Store-and-Forward-Switching, fanless design
Port type and quantity	24 ports in total; 20 x (10/100/1000 BASE-TX, RJ45) and 4 Gigabit Combo ports (10/100/1000 BASE-TX, RJ45 or 100/1000 BASE-FX, SFP)
Type	MACH104-20TX-F
Order No.	942 003-001
<b>More Interfaces</b>	
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 the AutoConfiguration Adapter ACA21-USB
<b>Network size - length of cable</b>	
Twisted pair (TP)	0 m - 100 m
Multimode fiber (MM) 50/125 µm	see SFP LWL-Module M-FAST SFP-MM/LC and SFP LWL-Module M-SFP-SX/LC
Multimode fiber (MM) 62.5/125 µm	see SFP LWL-Module M-FAST SFP-MM/LC and SFP LWL-Module M-SFP-SX/LC
Single mode fiber (SM) 9/125 µm	see SFP LWL-Module M-FAST SFP-SM/LC und SFP LWL-Module M-SFP-LX/LC
Single mode fiber (LH) 9/125 µm (long haul transceiver)	see SFP LWL-Module M-FAST SFP-SM+/LC
<b>Network size - cascading</b>	
Line - / star topology	any
Ring structure (HIPER-Ring) quantity switches	50 (reconfiguration time < 0.3 sec.)
<b>Power requirements</b>	
Operating voltage	100-240 VAC, 47-63 Hz
Heat dissipation	119 Btu (IT) h
Rated current	n/a
Power consumption	35 W
<b>Software</b>	
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 tester
Configuration	Command Line Interface (CLI), TELNET, BootP, DHCP, DHCP Option 82, HIDiscovery, AutoConfiguration Adapter (ACA11, ACA21-USB), Watchdog Configuration, integrated DHCP server
Security	Port Security (IP und MAC), SNMP V3, SSH, Authentication (802.1x)
Redundancy functions	HIPER-ring (Ring structure), MRP (IEC-Ring function), RSTP 802.1D-2004, redundant Net/Ring coupling, Dual Homing, Link Aggregation
Filter	n/a
Industrial Profiles	n/a
Realtime	n/a
Flow control	n/a
<b>Ambient conditions</b>	
Operating temperature	0 °C - 50 °C
Storage/transport temperature	-20 °C - 85 °C
Relative humidity (non-condensing)	10 % - 95 %
MTBF	n/a

Industrial Ethernet:Workgroup Switches:24 port Fast/Gigabit Ethernet Workgroup switch :MACH104-20TX-F	
<b>Mechanical construction</b>	
Dimensions (W x H x D)	448 mm x 44 mm x 345 mm
Mounting	19" control cabinet
Weight	4200 gram
Protection class	IP20
<b>Mechanical stability</b>	
IEC 60068-2-27 shock	15 g, 11 ms duration, 18 shocks
IEC 60068-2-6 vibration	3.5 mm, 5–8.4 Hz, 10 cycles, 1 octave/min; 1 g, 8.4–150 Hz, 10 cycles, 1 octave/min
<b>EMC interference immunity</b>	
EN 61000-4-2 electrostatic discharge (ESD)	4 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field	10 V/m (80-3000 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)
<b>EMC emitted immunity</b>	
FCC CFR47 Part 15	FCC 47 CFR Part 15 Class A
EN 55022	EN 55022 Class A
<b>Approvals</b>	
Safety of industrial control equipment	cUL 508 (pending)
Safety of information technology equipment	cUL 60950-1 (pending)
<b>Scope of delivery and accessories</b>	
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