

## Product information

### MACH104-20TX-F-4PoE

Industrial Ethernet:Workgroup Switches:Gigabit/10 Gigabit Ethernet Workgroup Switches, 22-24 Ports:MACH104-20TX-F-4PoE

<http://www.e-catalog.beldensolutions.com/link/57078-24455-49848-85613-83681/en/conf/uistate>

| Name                                                    |  | MACH104-20TX-F-4PoE                                                                                                                                                                                                        |
|---------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                         |  |                                                                                                                                           |
|                                                         |  | 24 port Gigabit Ethernet Industrial Workgroup Switch (20 x GE TX ports, there from 4 x PoE ports, 4 x GE SFP combo ports), managed, Software Layer 2 Professional, Store-and-Forward-Switching, IPv6 Ready, fanless design |
| Delivery informations                                   |  |                                                                                                                                                                                                                            |
| Availability                                            |  | available                                                                                                                                                                                                                  |
| Product description                                     |  |                                                                                                                                                                                                                            |
| Description                                             |  | 24 port Gigabit Ethernet Industrial Workgroup Switch (20 x GE TX ports, there from 4 x PoE ports, 4 x GE SFP combo ports), managed, Software Layer 2 Professional, Store-and-Forward-Switching, IPv6 Ready, fanless design |
| Port type and quantity                                  |  | 24 Ports in total: 20x (10/100/1000 BASE-TX, RJ45) therefrom 4 x PoE and 4 Gigabit Combo Ports (10/100/1000 BASE-FX, RJ45 or 100/1000 BASE-FX, SFP)                                                                        |
| Type                                                    |  | MACH104-20TX-F-4PoE                                                                                                                                                                                                        |
| Order No.                                               |  | 942 003-201                                                                                                                                                                                                                |
| 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 USB to connect the AutoConfiguration Adapter ACA21-USB                                                                                                                                                                 |
| Network size - length of cable                          |  |                                                                                                                                                                                                                            |
| 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 and 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                                                                                                                                                                                       |
| Network size - cascability                              |  |                                                                                                                                                                                                                            |
| Line - / star topology                                  |  | any                                                                                                                                                                                                                        |
| Ring structure (HIPER-Ring) quantity switches           |  | 50 (reconfiguration time < 0.3 sec.)                                                                                                                                                                                       |
| Power requirements                                      |  |                                                                                                                                                                                                                            |
| Operating voltage                                       |  | 100-240 V AC, 50-60 Hz                                                                                                                                                                                                     |
| Heat dissipation                                        |  | 170 Btu (IT) h                                                                                                                                                                                                             |
| Rated current                                           |  | n/a                                                                                                                                                                                                                        |
| Power consumption                                       |  | 110 W                                                                                                                                                                                                                      |
| Software                                                |  |                                                                                                                                                                                                                            |
| Diagnostics                                             |  | LEDs, log-file, syslog, signal contact, RMON (statistic, history, alarms, events), port mirroring, topology discovery 802.1AB, cable tester                                                                                |
| Configuration                                           |  | Comand Line Interface (CLI), TELNET, BootP, DHCP, DHCP Option 82, HIDiscovery, auto-configuration adapter (ACA11, ACA21-USB), watchdog Configuration, integrated DHCP server                                               |
| Security                                                |  | Port security (IP and MAC), SNMP V3, SSH, authentication (802.1x)                                                                                                                                                          |
| Redundancy functions                                    |  | HIPER-ring, MRP, RSTP - IEEE802.1D-2004, MRP and RSTP in parallel, redundant network/ring coupling                                                                                                                         |
| Filter                                                  |  | n/a                                                                                                                                                                                                                        |
| Industrial Profiles                                     |  | n/a                                                                                                                                                                                                                        |
| Time synchronisation                                    |  | n/a                                                                                                                                                                                                                        |
| Flow Control                                            |  | n/a                                                                                                                                                                                                                        |
| Ambient conditions                                      |  |                                                                                                                                                                                                                            |
| Operating temperature                                   |  | 0 °C ... 50 °C                                                                                                                                                                                                             |
| Storage/transport temperature                           |  | -20 °C ... 85 °C                                                                                                                                                                                                           |
| Relative humidity (non-condensing)                      |  | 10 % ... 95 %                                                                                                                                                                                                              |
| MTBF                                                    |  | n/a                                                                                                                                                                                                                        |

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**Mechanical construction**

|                        |                         |
|------------------------|-------------------------|
| Dimensions (W x H x D) | 448 mm x 44 mm x 345 mm |
| Mounting               | 19" control cabinet     |
| Weight                 | 4600 g                  |
| Protection class       | IP20                    |

**Mechanical stability**

|                         |                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------|
| 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 |

**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 (80–3000 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)                                           |

**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     |
| Safety of information technology equipment | cUL 60950-1 |

**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                                                            |

For more information please contact:

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