



TB20-C, bus coupler EtherNet/IP

EtherNet/IP

- Modules can be replaced during operation (hot-swapping)
- 24 V DC power supply
- Integrated power supply unit for powering peripheral modules (2.5 A)
- Supplies the system's I/O voltage (24 VDC)
- USB device port for online diagnostics, configuring parameters, setup, and firmware updates with "TB20 ToolBox"
- TB20 ToolBox simulation for commissioning the I/O system without a higher-level controller in order to test the functionality (I/O check)
- Concealed "factory reset" switch for restoring the module to its factory settings
- Supports unicast and multicast
- CIP connections
- 511 bytes of input assembly data, 511 bytes of output assembly data
- TB20 ToolBox can be used for easy access to assembly sizes and to the structure of the memory image within the assemblies
- Up to 64 peripheral modules
- Implicit messaging (transport class 1)
- Explicit messaging (transport class 3)
- TCP watchdog
- IP address can be set relative to a base IP address by using a DIP switch that can be covered
- DHCP (can be selected using DIP switch)
- Integrated 2-port switch with 2 x RJ45 connectors
- Module process data is automatically assigned to the EtherNet/IP mapping

The EtherNet/IP bus coupler makes it possible to access data from peripheral modules using the EtherNet/IP protocol. It can accommodate up to 64 modules of any kind connected in series with the bus coupler. The EtherNet/IP bus coupler features an integrated two-port switch that allows for star and line topology configurations. A large I/O image table size of one kbyte makes it possible to implement comprehensive and complex systems. TB20 ToolBox can be used to easily configure the system and the various module parameters and transfer the corresponding settings to the coupler. A functioning TB20 configuration will always require a bus coupler and at least one peripheral module. The bus coupler supports hot-swapping for replacing modules during operation.

Technical specifications

| General information | |
|-----------------------------|--|
| Order number | 600-175-1AA11 |
| Article name | TB20-C, EtherNet/IP bus coupler |
| Scope of delivery | Bus coupler Ethernet/IP, 24 V power supply connector, bus cover element, base module |
| Dimensions (DxWxH) | 73 x 35 x 110 mm |
| Weight | Approx. 115 g |
| EtherNet/IP interface | |
| Number | 2 |
| Connection | RJ45 |
| Protocol transmission model | Implicit messaging (transport class 1), explicit messaging |

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|---|---|
| | (transport class 3) |
| Transmission rate | 10/100 Mbps, automatic detection |
| Input/output assembly size | 511/511 bytes |
| IP address | Can be set with software and/or DIP switch |
| DHCP | Yes, can be selected using DIP switch |
| USB interface | |
| Number | 1 |
| Protocol | Full-speed USB 1.1 device |
| Connection | Mini-USB |
| Isolation voltage | Yes |
| Electrical isolation | 1.5 kV |
| Number of modules that can be connected in series | 64 |
| Voltage supply | 24 VDC, 18–28 VDC |
| Current draw | |
| Current draw without modules (internal) | 75 mA |
| Power supply for modules | 5 V DC, max 2.5 A |
| Power dissipation | Max. 8 W |
| Mounting position | Any |
| Ambient conditions | |
| Ambient temperature | 0 °C ... +60 °C |
| Transport and storage temperature | -20 °C ... +80 °C |
| Relative air humidity | 95 % r H without condensation |
| Protection rating | IP 20 |
| Certifications | CE, UL |
| UL | |
| Surrounding Air Temperature | 0 °C ... +50 °C |
| Pollution degree | 2 |
| CE | |
| Noise immunity | DIN EN 61000-6-2 "EMC Immunity" |
| Interference emission | DIN EN 61000-6-4 "EMC Emission" |
| Vibration and shock resistance | DIN EN 60068-2-6:2008 „Vibration“, DIN EN 60068-2-27:2010 „Shock" |
| RoHS | Yes |
| REACH | Yes |