

Magnum TB14 and TB14H

10 Mb BNC to Copper Media Converters

Features

- Two models, regular for wiring closets and Hardened for Industrial
- Family of power supply types and temperature ratings, AC and DC
- Both models provide an internal BNC termination switch and an up-link switch on the RJ-45
- Two sets of LEDs, on beveled facing and on the end, provide status information from any direction
- Metal enclosure. Panel mounting, DIN-Rail or Rack-mount tray option



Robust packaging, a selection of extended temperature models, choice of AC and DC power types, ease-of-use features, and energy efficiency are the primary characteristics of the Magnum™ 10Mb TB14 and TB14H Media Converters. All models offer a graceful way to convert and transmit data between twisted pair and thin coaxial BNC network cables for media flexibility in new or expanded 10Mb Ethernet networks. They provide standard collision detection and indication, and comply with the Ethernet V1.0 / 2.0 specifications and the IEEE 802.3 standards. Power consumed in use is only 3 watts.

The TB14 regular-package units are for wiring closet environments and use an external AC power supply for either 0° to 40°C or the more stressful industrial 0° to 50°C ambient temperature. All power supply units are UL and CE tested and approved for their specified rating. A heavy duty metal case with convection cooling is featured. The units can be mounted securely on a closet wall or the side of cabinet, or by using the metal panel mounting clips included. A rack-mount tray option is available, for up to 16 units.

The TB14H Hardened unit features a sealed metal case which is also used as a heat sink. No air flow is required for cooling, so the TB14H resists dust, dirt, moisture, smoke and insects, and is rated for above-the-ceiling "plenum" applications. Choices of models for external AC or internal DC power are available. Ambient temperature rating is up to -40°C to +75°C depending on the power source used. The TB14H is suitable for temperature un-controlled outdoor applications. Mounting options include panel-mounting, DIN-rail, or rack-mount tray.

Magnum TB14 and TB14H Media Converters are designed to provide reliable operation, even in stressed industrial-strength and "outdoor" applications environments. Their high-strength fabricated metal packaging shields against Radio Frequency Interference (RFI) and Electromagnetic Interference (EMI). Like all Magnum Ethernet connectivity products, they are backed by a three year warranty.



Specifications

10 Mb Media Converter BNC / TP, Models TB14 and TB14H

PERFORMANCE:

Data Rate: 10 Mb, half-duplex mode

NETWORK STANDARDS:

Ethernet: IEEE 802.3, 10BASE-T, 10BASE2

OPERATING ENVIRONMENT:

Ambient Temperature - see Matrix below
Cold start down to -25°C
Storage temperature: -40° to 185°F (-40°to 85°C)
Ambient Relative Humidity: 5% - 95% (non-condensing)
Conformal coating (humidity protection) option, request quote.
Designed for NEBS compliance, including vibration, shock, and altitude

PACKAGING:

Enclosure: Rugged sheet metal (steel)
Dimensions of units: 3.5 in H x 3.0 in W x 1.0 in D
(8.9 cm x 7.6 cm x 2.5 cm)

Weight:

Media Converter Units: 4.6 oz (130g)

Power Supply - d, i: 5.8 oz (165g)

Power Supply - Hd, Hi: 3 oz (85g)

Cooling Method: Case used as a heat sink on "H" models

Metal panel mounting clips: included

DIN-Rail mounting option:

Model # DIN-RAIL MC2, illustrated here;

Rack-mount option: Model MC14-TRAY.

Depth: 6.0", Width 17"

Height: 2.25" (15 cm D x 43 cm W x 5.7 cm H)



POWER SUPPLY:

Power Input 12V DC jack is 2.5mm center +ve jack, with 6ft. cord
-d: external, 120V AC at 60Hz.
-i: external, 230V AC at 50hz, IEC receptacle built-in
-Hd: external, 100-240V AC at 50-60Hz (see footnote 1)
-Hi: external, 100-240V AC at 50-60Hz, includes power plug adapters for international receptacles (see footnote 2)
24V DC internal (range of 8 to 15V DC), built-in screw terminal block for +, -, ground. The 12V DC jack is also present.
24V DC internal (range of 18 to 36V DC) built-in screw terminal for +, -, ground. The 12V DC jack is also present.
-48V DC internal (range of 30 to 60V DC), built-in screw terminal block for +, -, ground. The 12V DC jack is also present.



Power Consumption, all models: 3 Watts typical, 5 Watts max.

AGENCY APPROVALS AND STANDARDS COMPLIANCE:

UL listed (UL60950), cUL, CE, Emissions meet FCC Part 15, Class A.
NEBS L3 and ETSI compliant
H model: IEEE 1613 Env. Std for Electric Power Substations
H model: NEMA TS-2 and TEES for traffic control equipment
H model: designed for UL 2043 above-the-ceiling installation
IEC61850 EMC and Operating Conditions Class C for Power Substations

WARRANTY:

Three years

Made in USA

Footnotes:

1: External 12V 1A power supply, wall plug for North American receptacles, universal AC input at 50-60 Hz, 100-240V AC. (Order model PSW-12V1A-Hd as a spare part.)
2: External 12V 1A power supply, wall plug for international receptacles (via non-North American adapters), universal AC input at 50-60 Hz, 100-240V AC (Order model PSW-12V1A-Hi as a spare part.)

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LED INDICATORS:

PWR: Steady on when power applied.

LINK: Steady on when attached TP cable is operational.

RX: Blinking indicates activity, port is receiving data.

POL: Indicates TP receive wire-pair signal inversion (polarity).

COL: Indicates unit detects simultaneous data TX and RX.

JAB: Indicates jabber (illegal packet length fault) condition.

When lit, the port is partitioned.

CONNECTORS:

RJ-45 Port: Shielded 8-Pin female, with up-link switch

BNC Port: Standard BNC connector, RG-58 ThinNet, with manual internal termination switch.

Model	AMBIENT TEMPERATURE				POWER SOURCE				
	0° to 40°C (104°F)	0° to 50°C (122°F)	-40° to 55°C (131°F)	-40° to 75°C (167°F)	d, i AC external	Hd, Hi AC, external	12V DC, term.block	24V DC, term. block	-48V DC, term. block
TB14-d, TB14-i Office	X				X				
TB14-Hd, TB14-Hi Industrial		X			X				
TB14H-Hd, TB14H-Hi Extended Temp. AC			X		X	X			
TB14H-12V DC Extended Temp. 12V DC			X			X			
TB14H-24V DC Extended Temp. 24V DC			X				X		
TB14HR-24V DC Includes DIN-Rail MC2			X				X		
TB14HR-48V DC Extended Temp. -48V DC			X					X	



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