

User Manual

MediaConverter_1000BaseT1

Version 0.1
21. June 2017



You can download the latest documentation for the MediaConverter_1000BaseT1 here:

<http://www.technica-engineering.de/>

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1 Feature List

The Technica Engineering MediaConverter_1000BaseT1 has the following basic features:

1 Port 1000BaseT1 Ethernet with Marvell 88Q2112 Transceiver
1000 MBit/s Fullduplex on a single unshielded twisted pair

1 Port Gigabit Ethernet
1000 BaseTX

- ✓ NanoMQS Connector (optional MateNet Connector)
- ✓ Robust steel case
- ✓ DIP Switches for easy configuration

Power requirement: 8 to 16 Volt DC (nominal 12 Volt DC)

Power consumption: 2 Watt

Size: 95 x 100 x 27 mm

Wight: 0,3 kg

International Protection: IP 2 0

Operating Temperature: -40 to +80 °Celsius

2 Warranty and Safety Information



Before operating the device, read this manual thoroughly and retain it for your reference.

You can download the latest firmware and documentation for the MediaConverter here:

<http://www.technica-engineering.de>



Use the device only as described in this manual.

Use only in dry conditions.

Do not apply power to a damaged device.



Do not open the device. Otherwise warranty will be lost.



This device is designed for engineering purpose only.

Special care has to be taken for operation.

Do not use this device in a series production car.

As this device is likely to be used under rough conditions, warranty is limited to 1 year.

Manufacturer liability for damage caused by using the device is excluded.

3 Pinning

The Tyco Electronics (TE) Nano Micro Quad Lock System (NanoMQS) is used.

Name		Part Number
<p style="text-align: center;">20POS NANOMQS REC HSG CODE A</p>		<p style="text-align: center;">2141404-1</p>
<p style="text-align: center;">NANOMQS RECEPTACLE TERMINAL</p>		<p style="text-align: center;">2-1703930-1</p>

<http://www.te.com/usa-en/product-2141404-1.html>

<http://www.te.com/usa-en/product-2-1703930-1.html>

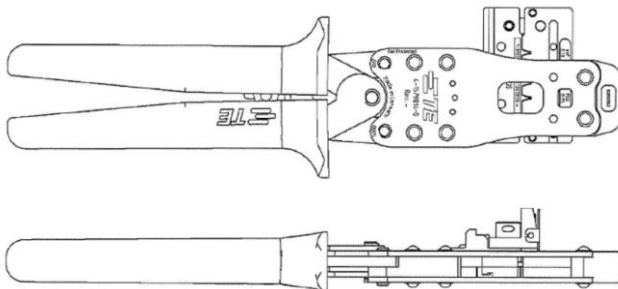
<http://www.te.com/usa-en/product-4-1579014-0.html>

<http://de.farnell.com/te-connectivity/2-1703930-1/contact-socket-crimp/dp/2528666>

Official Crimp Tool:

TE CONNECTIVITY CS11K NANO-MQS, 0.13-0.35 SQ.M

TE Internal Number: 4-1579014-0



Distributor:

Börsig GmbH
Siegmond-Loewe-Str. 5
74172 Neckarsulm
www.boersig.com

Connector color: Black

Pin	Function	Pin	Function
1		2	
3	Gigabit Minus	4	
5	Gigabit Plus	6	
7		8	
9		10	
11		12	
13		14	
15		16	
17		18	Battery +12 Volt Input
19		20	Battery Ground Input

4 Optical Interface

The optical interface is a serial terminal connection. For using this a special USB Adapter is required.

Plug in the optical cable on both sides crossover. RX – TX

Open a Terminal program (e.g. TerraTerm) at your PC and open the USB Device as serial connection.

Speed settings: 14.400 kbit/s and 8N1.

Status information is displayed. The error counter can be reset by pressing “Space” key.

5 Configuration

The MediaConverter is configured by 2 DIP Switches on the front of the device.

DIP Switch 1: ON = 1000BaseT1 is set to Master.
 OFF = Slave

DIP Switch 2..4: OFF = Normal Operation Mode
 Other: Test Modes

Note: In a 1000BaseT1 Link one device has to be set to Master, the other has to be set to Slave Mode.

6 Frequently Asked Questions – FAQ

Q: What is the maximum Cable Length?

A: The MediaConverter is optimized for automotive use. The maximum line length for each BroadR-Reach segment is limited to 10 meters!

7 Contact

If you have any questions regarding this product please feel free to contact us:

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