

# Ethernet Repeater PTH

**New**

## Ethernet IEEE 802.3 100BASE-TX network HUB for development & diagnostics

Particular for the development of devices which are communicating in a local Ethernet network (LAN), i.e. at the control-unit development, the Ethernet Repeater PTH is essential. There are diagnostics at the network data transmission possible, which cannot be done with an Ethernet Switch.

With the ONE -to- ALL PORT transmission of the Ethernet Repeater PTH, the total network traffic is always on all network ports and members assured. Thereby is no interaction to the data transmissions i.e. a routing decision as by an Ethernet Switch.

The Ethernet Repeater PTH is manufactured by Nickl as a 4 port- and as a 8 port- variant. The 8-port variant can be configured as one (1x) 8-Port Ethernet Repeater (HUB) or as two (2x) apart 4-Port Ethernet Repeaters (HUBs).

The power supply with 9..36VDC, i.e. directly from the vehicle, is galvanically decoupled to prevent ground loops.

OPTIONAL is a 5VDC supply via USB possible, for this a USB-connector is placed at the manufacturing instead of the D-Sub-5.

- 100% data provision for all network members
- for control-unit development and simulation
- for data traffic diagnostics
- additional Ethernet network at testing vehicles

- ONE -to- ALL PORT transmission
- Unmanaged Ethernet Repeater (HUB)
- 4 RJ45-ports or  
8 RJ45-ports configured as 1x8 or 2x4
- Aluminium strongbox with cooling fins
- 9..36VDC power input
- OPTIONAL: 5VDC power input via USB



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# Ethernet Repeater PTH

## Technical Data

Data Rate	100 Mbit and 10 Mbit, automatic detection
Ports	variant 1EMPTH-4-100-K: 4 network ports variant 1EMPTH-8-100-K: 8 network ports (4 ports at the front + 4 ports at the back) the 8-port variant can be configured as one 1(x) 8-Port Ethernet Repeater or as two (2x) apart 4-Port Ethernet Repeaters
Status Indicators	Link/Activity LED and Receive Error LED for each port Collision LED and network Utilisation via 5 LEDs per 4-ports Power LED
Connectors	Power: 1x D-Sub-5 (socket for cable: Amphenol 177D EM5W1 S) or OPTIONAL 1x MicroUSB Typ AB (f.b.c.) Netzwerk: 4x RJ45 shielded or 8x RJ45 shielded
Power Supply	9..36 VDC with typ. 355mA @ 12V, galvanically decoupled, switched via pin 4 / nShutdown at D-Sub-5 or OPTIONAL 5 VDC with typ. 685mA, not galvanically decoupled
Operating Temperature	~ 0 ... 60 °C
Storage Temperature	-40 ... 125 °C
Dimensions	approx. (171 x 111 x 32) mm <sup>3</sup> without connectors
Mounting	4x screw nuts inside 2x rails for lateral mounting at a holding plate
Case	Aluminium strongbox with good HF-shielding and cooling fins
Mass	approx. 600g

## Accessories

- 1EZKA-2xRJ45S-x-BLU  
cable, Patch-, 1, 2, 5, 7 and 10 m, blue: 2 x RJ45  
plug with enhancement, cable Kat. 5
- 1EZKA-DB5BAN2-x  
Powercable, D-Sub5 receptacle, 2x banana  
connectors red/black, L=2m, 5m and 7m
- 1EZPAS-DB5  
Power-connector-set, D-Sub5 receptacle, soldering  
terminals

## Order Codes

- 1EMPTH-8-100-K  
Ethernet Repeater (HUB) with 8x RJ45-ports, IEEE 802.3  
100BASE-TX standard, >> ONE -to- ALL PORT
- 1EMPTH-4-100-K  
Ethernet Repeater (HUB) with 4x RJ45-ports, IEEE 802.3  
100BASE-TX standard, >> ONE -to- ALL PORT  
- Further variants on request -

