

BNC-TO-RJ45 ADAPTER

RCP-BNC



GENERAL DESCRIPTION

The **BNC-to-RJ45 adapter** is a compact connector changer suitable to interface BNC cables with imperix **B-Box controllers**, namely the B-Box 4, B-Box 3 (RCP) and the B-Box Micro. It enables a direct connection between common laboratory equipment such as sensors, probes or signal generators with the analog inputs of the controller. When used with the B-Box 4, BNC-to-RJ45 adapters can also be used for the opposite signal direction, i.e. interfacing the B-Box 4's RJ45 connectors, used as outputs, to laboratory equipment such as oscilloscopes and power amplifiers.

KEY FEATURES

- **Plug-and-play:** Direct BNC-to-RJ45 conversion with no additional wiring required.
- **Bidirectional:** Can be used with analog inputs (all controllers) or analog output (B-Box 4 only).
- **Compact:** Multiple adapters can be used side-by-side.

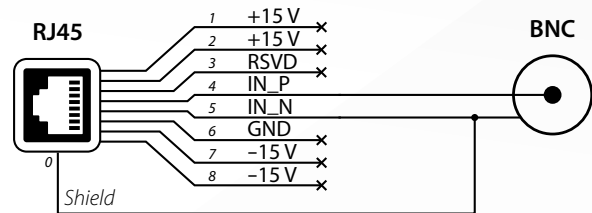
TECHNICAL SPECIFICATIONS

The BNC-to-RJ45 adapter is **purely passive**. It implements a direct connection between the connectors and contains no active component. This ensures a transparent signal path and allows for its use with any signal direction.

Parameter	Value
Compatibility	Imperix controllers: - B-Box 4 BNC to analog I/Os - B-Box 3 (RCP) BNC to analog inputs - B-Box Micro BNC to analog inputs
First connector	1x BNC (female)
Second connector	1x RJ45 (female)
Type	Passive adapter
Dimensions (housing)	33 x 25 x 20 mm

PINOUT CONFIGURATION

The adapter connects the differential analog signal to the BNC connector as shown in the schematic below.



The pinout of the adapter is as follows:

RJ45 pin	Signal	BNC connection
0	shield	shield
1, 2	+15V	-
3	RSVD*	-
4	IN_P (Signal +)	central Pin
5	IN_N (Signal -)	shield
6	GND	-
7, 8	-15V	-

* Depends on the controller (GND or 1-Wire). Please refer to the controller's datasheet.

KIT CONTENT

- 1x BNC to RJ45 adapter (cables not included)

CONTACT

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ABOUT US

Imperix develops high-end control equipment and prototyping hardware for power electronics, motor drives, smart grids and related topics. Our products are designed to accelerate the implementation of laboratory-scale power converters and facilitate the derivation of high-quality experimental results.

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