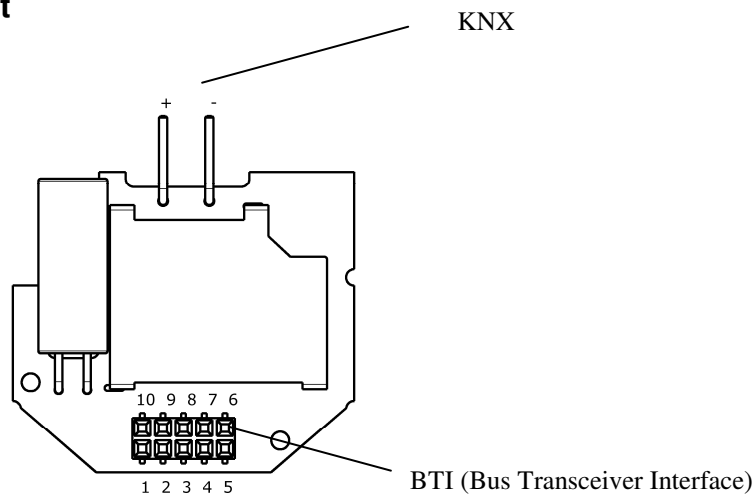**Bus Transceiver Module 117/12 PCBA**
(TP-UART 2 Evaluation Board)

Features

- o **Interface to KNX bus**
- o **TP-UART 2 device integrated (works in Normal mode (digital))**
- o **BTI-Interface offers two voltages (DC 5V, DC 20V)**
- o **The UART-Interface on the BTI works with 19.2kBaud in asynchronus mode, 2-wire protocol (TxD, RxD) with software handshake and buffering of sent frames**
- o **Signalization of bus voltage break-down via SAVE**
- o **Reset-Signal of TP-UART available**

Pinout

Connections

• bus line: connector for screwless bus connection block (red-black)
0.6...0.8 mm Ø single core
remove approx. 5mm of isolation

• 10-pin socket (BTI)

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Technical Manual

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Release: May 2012

Bus Transceiver Module 117/12 PCBA
(TP-UART 2 Evaluation Board)

Pushbutton/LED
Pushbutton and LED mounted on the PCBA are not applicable

Technical Specifications

Bus interface characteristics

Characteristics	Symbol	Min	Max		Unit	Remarks
KNX bus	+ / -	21	30		V	

BTI- Characteristics

Pin number	Characteristics	Symbol	Min	Typ	Max	Unit	Remarks
1	Ground	GND					
2	Serial Interface RxD (Data receive from host)	RxD					Connected to TP-UART RxD
3	Not connected						
4	Serial Interface TxD (Data transmission to host)	TxD					Connected to TP-UART TxD
5	Supply Output Voltage 5V	VCC	$4{,}75 - V_{Drop}$	5,0	5,25	V	$I_{VCCmax}= 30mA$ (when $I_{P20}= 25mA$ max.) $I_{VCCmax}=50mA$ (when $I_{P20}= 0mA$) $V_{Drop} = 5{,}4\Omega \cdot I_{Vcc}$
6	Not connected						
7	Signalization of bus voltage break-down	SAVE					Connected to TP-UART SAVE
8	Supply Output Voltage 20V	P20	17,0		22,5	V	Static voltage @ max. 25mA load
9	Reset pin, open drain with internal pullup	RESET					Connected to TP-UART RESn
10	Not connected						

5V (VCC) are used as supply voltage for the pins TxD, RxD, RESn, SAVE and that determines their high input or output level.
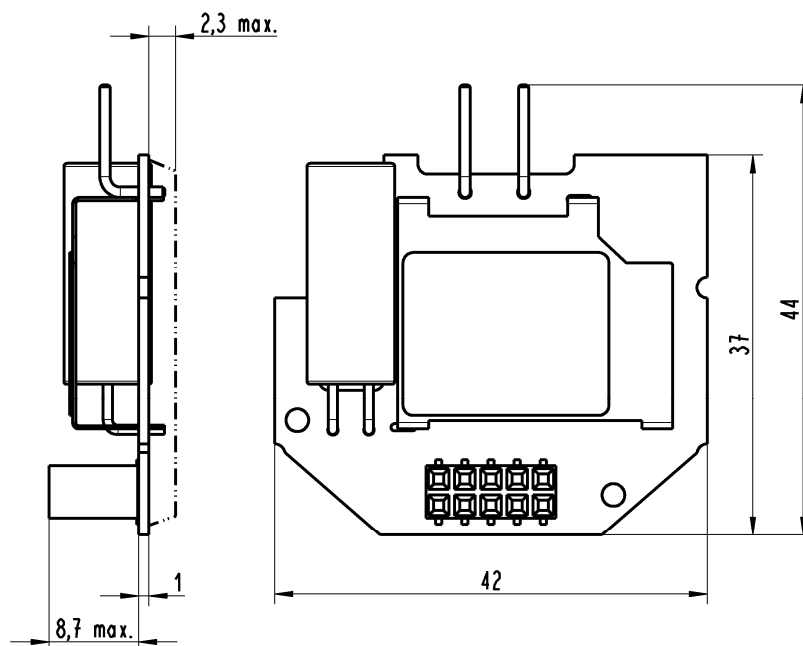
Environmental Conditions

operating-ϑ range	T_{amb}	-5°C to 45°C
storage-ϑ range	$T_{storage}$	-25°C to 70°C

**Bus Transceiver Module 117/12 PCBA
(TP-UART 2 Evaluation Board)**

Dimensions

(Dimensions in mm)

For further information about the TP-UART 2 chip see:

http://www.hqs.sbt.siemens.com/Lowvoltage/gamma_product_data/gamma-b2b/TPUART2_technical-data.pdf

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