

- ◆ **Smallest in-head programmable transmitter!**
- ◆ **Pt100 and 8 T/C programmable ranges**
- ◆ **2- or 3-wire current and voltage output**
- ◆ **Serial interface for configuration**
- ◆ **In-head and DIN-rail versions**
- ◆ **IP65 box and Ex housing available**

**FUNCTION**

BASI's temperature transmitter BTT783 is part of a revolutionary new project for the smallest (in-head) and cheapest multi-input programmable transmitter. It has a universal input accepting Pt100 RTD and 8 thermocouples and a voltage or current 2- or 3-wire output linearly proportional to the measured temperature. This model allows on-site selection of sensor type, input range and conversion direction as well as sensor failure reaction and no user calibration is necessary to be provided. BTT783 is available in a case for mounting inside sensor protection head type "B", in a watertight box with high protection class, and in a case for mounting on DIN rail. The RS232 serial interface allows fast and easy configuration. Thanks to the combination of performance, reliability, simplicity, flexibility, and low price, the BTT783 transmitter is easy-to-use and very widely applicable.

**SPECIFICATIONS GENERAL****INPUT**

**Pt100 (w=1.385), 3-wire** : Min -200 – max + 600 deg C  
**Thermocouple "E"** : Min -20 - max +600 deg C  
**Thermocouple "J"** : Min -20 - max +600 deg C  
**Thermocouple "K"** : Min -20 - max +1200 deg C  
**Thermocouple "B"** : Min 200 - max +1800 deg C  
**Thermocouple "R"** : Min 0 - max +1200 deg C  
**Thermocouple "S"** : Min 0 - max +1200 deg C  
**Thermocouple "N"** : Min 0 - max +1200 deg C  
**Thermocouple "T"** : Min -40 - max +400 deg C  
**Input/Output Conversion** : Direct or reverse, programmable

**OUTPUT**

**Current (3-wire)** : 0 (4) -20 mA, max load 750Ω at 24V  
**Current (2-wire)** : 4-20 mA, max load 800Ω at 24V  
**Voltage (3-wire)** : 0-10V, min load 1MΩ,  
max load kΩ at 10V

**RTD/TC output** : Proportional to temperature  
**Sensor failure** : < 3.8 mA or > 20.2 mA,  
programmable

**ACCURACY**

**Measurement error** : +/-0,1 % from span  
**Nonlinearity** : +/-0,1 % from span  
**Temperature drift** : 0.01 % from span for 1 °C  
**Cold junction compensation** : Automatic software +/-0,1°C  
**RTD 3-wire line compensation** : Up to 25 Ω per wire

**SERIAL INTERFACE**

**Interface type** : RS232, requiring special cable  
**Configuration software** : "BASI TraCon", free

**POWER SUPPLY**

**For standard type** : 8 to 36VDC (9-36V 3-wire)  
**Admissible variations** : 1 Vp-p at 50Z  
**Max. line load** : Max. 800Ω at 24V/20mA

**OPERATING CONDITIONS**

**Operating temperature:** -30 to 80 °C  
**Operating humidity:** 0 to 95%RH, non-condensing

**DESIGN AND MATERIALS**

**Case material:** Plastic  
**Wiring:** Screw terminals  
**Central opening(in-head):** Diam 5mm  
**Mounting in head:** Diam.44 x19mm (type B) IP20  
**Mounting on rail:** 18 x90x58mm (type C) IP20  
80x80x60mm (type D) IP65

**Interface cable type IP65 and head mount** : K1, K11U  
**Interface cable type DIN-rail** : K2, K12U

**ORDERING CODE****BTT783**

TYPE	OUTPUT	MOUNTING
2 2-wire	E 0-20mA	AB Head type
3 3-wire	F 4-20mA	C DIN-rail
	K 0-10V	D IP65 box
	Z Specify	E Ex housing (Mounting kit only)