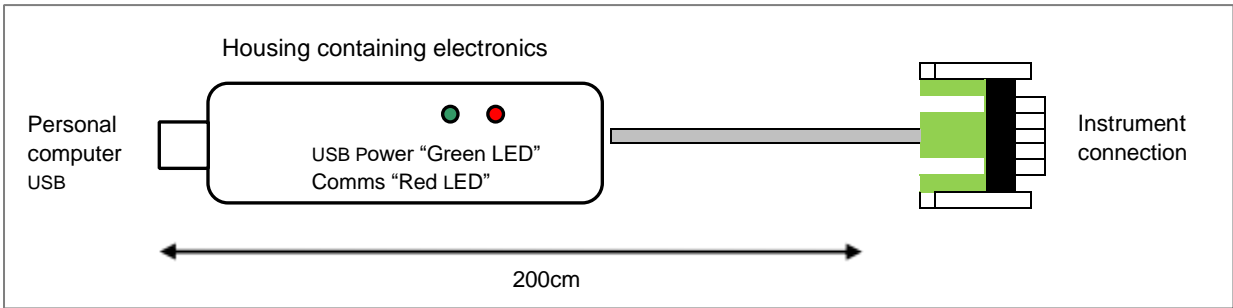# Eurotherm®
by Schneider Electric

1. Description

CONFIGURATION KIT (USB) USB CPI CLIP 2m long cable

Part No.: ITOOLS/NONE/USB/////XXXXX

The CPI clip allows configuration and back up of Eurotherm 3000, piccolo and nanodac series of panel mounted instruments and mini8 rack mounted controller. It supplies power to the instrument derived from the USB port of the host computer so that it can be used without the need for a power connection.

It designed to clip into the side of a controller or indicator as shown or into the back of a mini8 controller.

For panel mounted instruments, the cable can be used with the instrument powered or un-powered and with the instrument mounted or un-mounted in its sleeve. The benefit of using this arrangement is that an instrument can be un-plugged from the panel in which it is normally operated and re-configured on a bench without the necessity to provide either a spare sleeve or external power.

When used with the Mini8 multi loop control system it is necessary to power the Mini8 unit since the current requirements are greater than that provided by the USB port.

The clip is intended to be used with the Eurotherm configuration package, iTools, or using the firmware upgrade tool. These are described in sections 5 and 6 respectively.
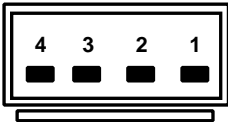

1.1 Hardware Features

Usb Connection
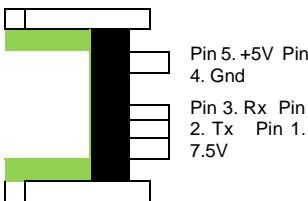
The USB connection is made with a male Type A plug.

Pin Functions

Pin Number	Name	Function
1	Vbus	Power
2	D-	Data -
3	D+	Data +
4	Gnd	Ground

Instrument connection

The cable connects to the instrument by a 5 pin configuration clip with a custom plastic insert and a shell. The pin description is shown below,

1. Provides +7.5V power to the instrument.
2. Comms Tx. (UART driven output from product micro)
3. Comms RX (input to product micro UART receive)
4. Ground power connection.
5. Provides +5V power to the instrument.

Pin 5. +5V Pin 4. Gnd

Pin 3. Rx Pin 2. Tx Pin 1. 7.5V

Eurotherm®
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7. Certifications, Environmental and Safety

Storage Temperature	-30 to 70 ºC
Operating Temperature	0 to 55 ºC
Relative Humidity	5 to 90%, non-condensing
Atmospheres	Non-corrosive, non-explosive
Vibration / Shock	EN61131-2 5-150Hz @ 2g
Approvals	CE
Electromagnetic Compatibility	EN61326 Emissions: Light industrial (Limit B) Immunity: Industrial
RoHS compliance	EU; China
USB compliance	USB 1, USB 2 and USB 3 (compatible)

USB to serial cable mechanical features

The cable has a type A male USB plug at the Personal Computer interface and 5 pin spring pin header at the instrument connection.

Weight	150g approx
Indicator Red LED	"Flashing" for data communications
Indicator Green LED	USB connected
Overall cable length	200cm
Cable conductor material	Copper