

## ESI-USB Plus Digital Interface Box

### To integrate with ESI-USB software

- ESI-USB Plus provides an input connection for an analogue transmitter/transducer together with an input connection for an external PT100 temperature sensor
- Operates with any type of analogue transmitter or transducer with a 4-20mA or 0-10V output
- USB 2.0 and USB 3.0x compatible
- Create customised reports and test certificates.
- ESI-USB© downloadable software with auto update
- Windows 8, 10 and 11 compatible



The ESI-USB Plus sensor interface box provides an excellent solution for connectivity beyond pressure measurement. Through the use of the powerful ESI-USB© data acquisition software, the user will be able to accurately report and measure against any user defined engineering unit.



It is suitable for connecting any type of transmitter or transducer with a 4-20mA or 0-10V output along with an accompanying external PT100 temperature sensor.

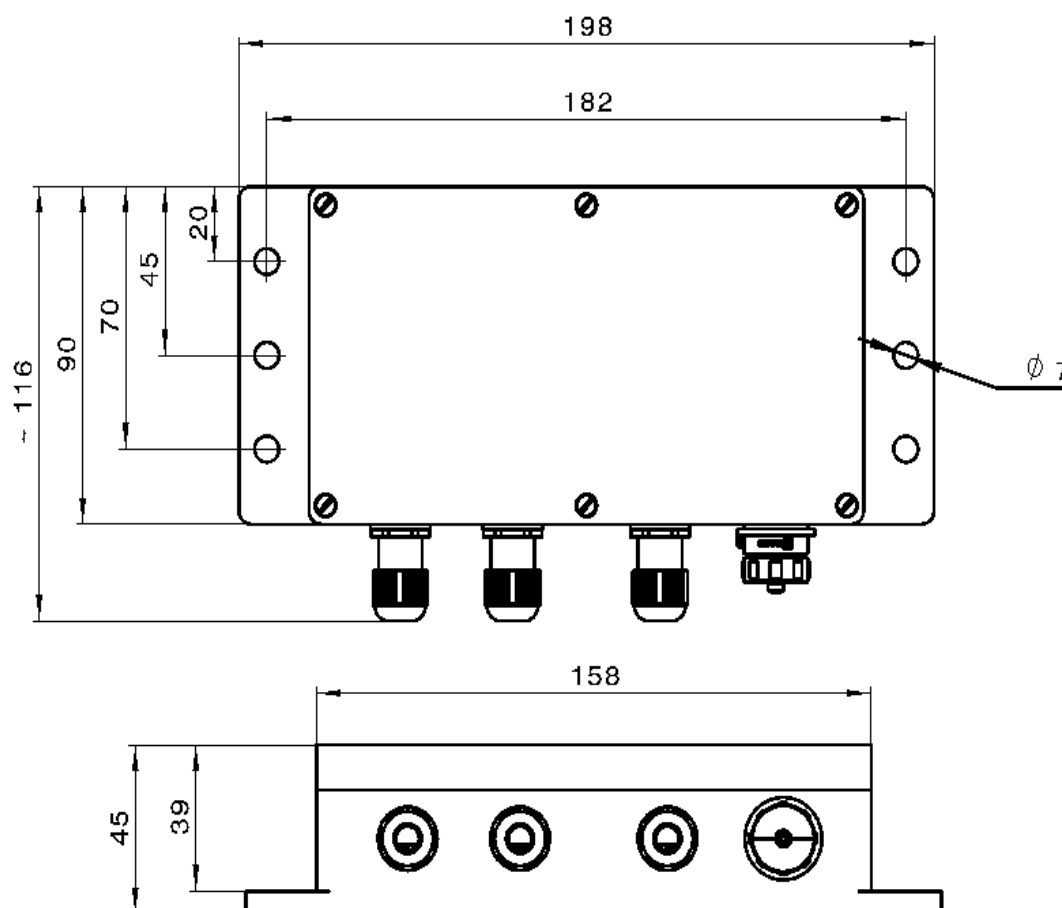
## Specifications

The **ESI-USB Plus Digital Interface Box** is specifically designed to facilitate the use of analogue input channels along with the ESI-USB© software. The device also allows for a single temperature dedicated channel for a PT100 RTD. It connects to the computer's USB port, data is then presented on the PC via the ESI-USB© fully configurable Windows Interface software. It has instant connection with auto-detection, and will configure automatically with your desktop, laptop or Windows tablet via USB protocol.

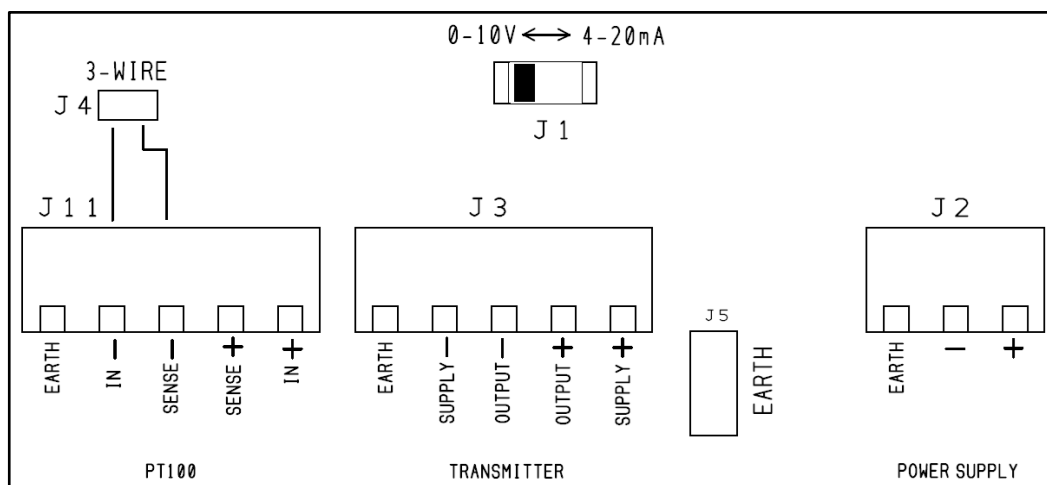
**Typical applications include:**

- Connecting analogue 4-20mA or 0-10V output sensors to the ESI-USB© data acquisition software
- Connecting an external P100 temperature sensor to the ESI-USB© system
- Numerous laboratory or process measurement and monitoring tasks

## Dimensions (in mm)



## Electrical Connections



J11 - PT100

Pin.	Designation
1	EARTH
2	IN-
3	SENSE-
4	SENSE+
5	IN+

J3 - TRANSMITTER

Pin.	Designation
1	EARTH
2	SUPPLY-
3	OUTPUT-
4	OUTPUT+
5	SUPPLY+

J2 - POWER SUPPLY

Pin.	Designation
1	EARTH
2	-
3	+

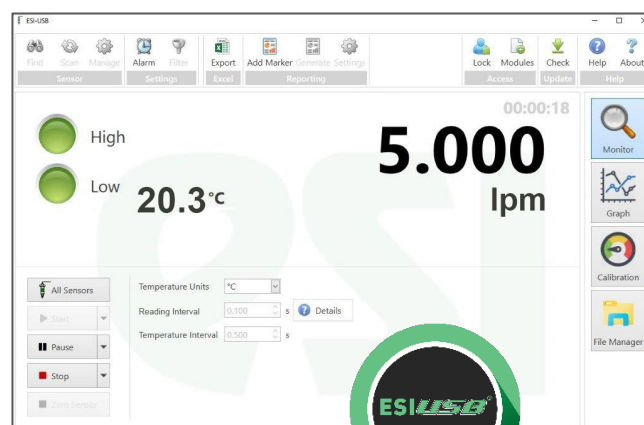
## ESI-USB® Software

Data is presented on the PC via the ESI-USB® fully configurable Windows Interface software. It has instant connection with auto-detection, and will configure automatically with your desktop, laptop or Windows tablet via USB protocol. The sample rate enables dynamic pressures to be measured with up to 21 bit resolution at user selectable speeds up to 1,000 Hz.

For real-time analysis, data transferred to the PC is achieved without loss of accuracy or bandwidth. Compatible with computers with USB 2.0/3.x type A ports, the ESI-USB® interface configuration and analysis software is runs on Windows 8, 10 and 11. Data can be displayed in graphical or tabular form, with a choice of pressure units and fully adjustable scales. Data can be saved to a file or exported to Excel/PDF.

The ESI-USB® software has many features including custom certificate generation, customisable certificate templates, leak testing, record and view up to 16 sensors at the same time, virtual differential pressure measurement, set automatic test start and stop times, and alarm levels for each individual sensor. Excellent measurement accuracy provides high resolution with a precision greater than 1 in 10,000.

Each unit requires free download of the ESI-USB® software. 2m USB lead supplied, with an option 4.5m lead also available.



## Technical Data

Type	USB Interface Box
Output Type:	USB 2.0, 3.x compatible, connects to USB type A port on computer
Software:	Integrates with ESI-USB© software platform
Compatibility:	Windows 8, Windows 10 and Windows 11
Input Types:	1 general analogue input channel, single ended analogue input 4-20mA or single ended / differential 0-10Vdc
Sample Rate:	User selectable up to 1,000 samples per second (1,000 Hz) Temperature measurement update 5 samples per second maximum
Resolution:	21 bits for $\leq 5$ Hz; 16 bits for $> 5 - 1,000$ Hz
Accuracy:	$\pm 0.15\%$ of span BFSL
Power Supply:	External supply required to power external transmitter/transducer
Operating Temperature:	$-20^{\circ}\text{C}$ to $+80^{\circ}\text{C}$ ( $-4^{\circ}\text{F}$ to $+176^{\circ}\text{F}$ )
Storage Temperature:	$+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ ( $+41^{\circ}\text{F}$ to $+104^{\circ}\text{F}$ ) Recommended Best Practice
Electromagnetic Capability:	EN61326-1, EN61326-2-3
USB Connection:	Mating to USB mini B socket on ESI-USB Plus. Supplied with 2m lead to connect to USB A port on computer
Sensor Connection:	PG7 x3 cable glands, screw terminals connectors for wire size 26-14awg
Enclosure:	ABS plastic enclosure L158xW90x H45mm, 6 mounting holes $\varnothing 7\text{mm}$
Ingress Protection:	IP65
Net Weight:	0.3Kg

Order Part Number:

ESI-USB-PLUS

**DISCLAIMER:** ESI Technology Ltd operates a policy of continuous product development. We reserve the right to change specification without prior notice. All products manufactured by ESI Technology Ltd are calibrated using precision calibration