

PERIPHERAL LEVEL TRANSFORMER (PLT)



PLT

Interfacing/connectivity	DB37, connects in-line with data cable/ peripheral output
power requirements	powered from peripheral port
Size	w x d x h = 7.5 x 5.3 x 1.5 cm
Weight	50 gram
Use	only i.c.w. Ivium potentiostats

Functionality: enhance the potential range of the analog inputs and outputs at the peripheral port to $\pm 10V$.

Installation: The male side of PLT module can be placed directly on the peripheral port connector of the IviumStat/CompactStat^[Note 3]. Any external equipment can be connected to the female side, as before. It is thus connected between the instrument and the periphery. All signals are passed through this module, and except level change of the analog inputs and outputs, it is fully compatible with the situation without PLT.

Application: The IviumStat and CompactStat are equipped with a 37-pins expansion port that can be used to apply analog output signals and measure analog input signals. The standard input/output-range is 0 to +4V. The PLT adapter module can be used to extend this range. The PLT transforms the range of the analog inputs 1&2 to $\pm 10V$, and the analog outputs to 0 to +10V (or $\pm 10V$ see note 2).
When the PLT is connected, the externally measured/applied potential E can be calculated from E_PLT

- analog inputs 1 and 2 : $E_{PLT} = -0.185 * E + 1.96$ range -10V to +10V
(where E_{PLT} = reading on screen; E = actual input on peripheral port)
- analog outputs 1 and 2 : $E = 5 * E_{PLT}$ range 0V to +10V
(where E_{PLT} = setting on screen; E = actual output of peripheral port)

Note 1 : The analog inputs 3-8 remain unchanged.

Note 2 : On request the analog output range can be adjusted to $\pm 10V$. In such case, the potential transformation will be: $E = 5 * (E_{PLT} - 2.048V)$.

Note 3 : For CompactStat, when using PLT make sure that CompactStat is fed from adapter power.