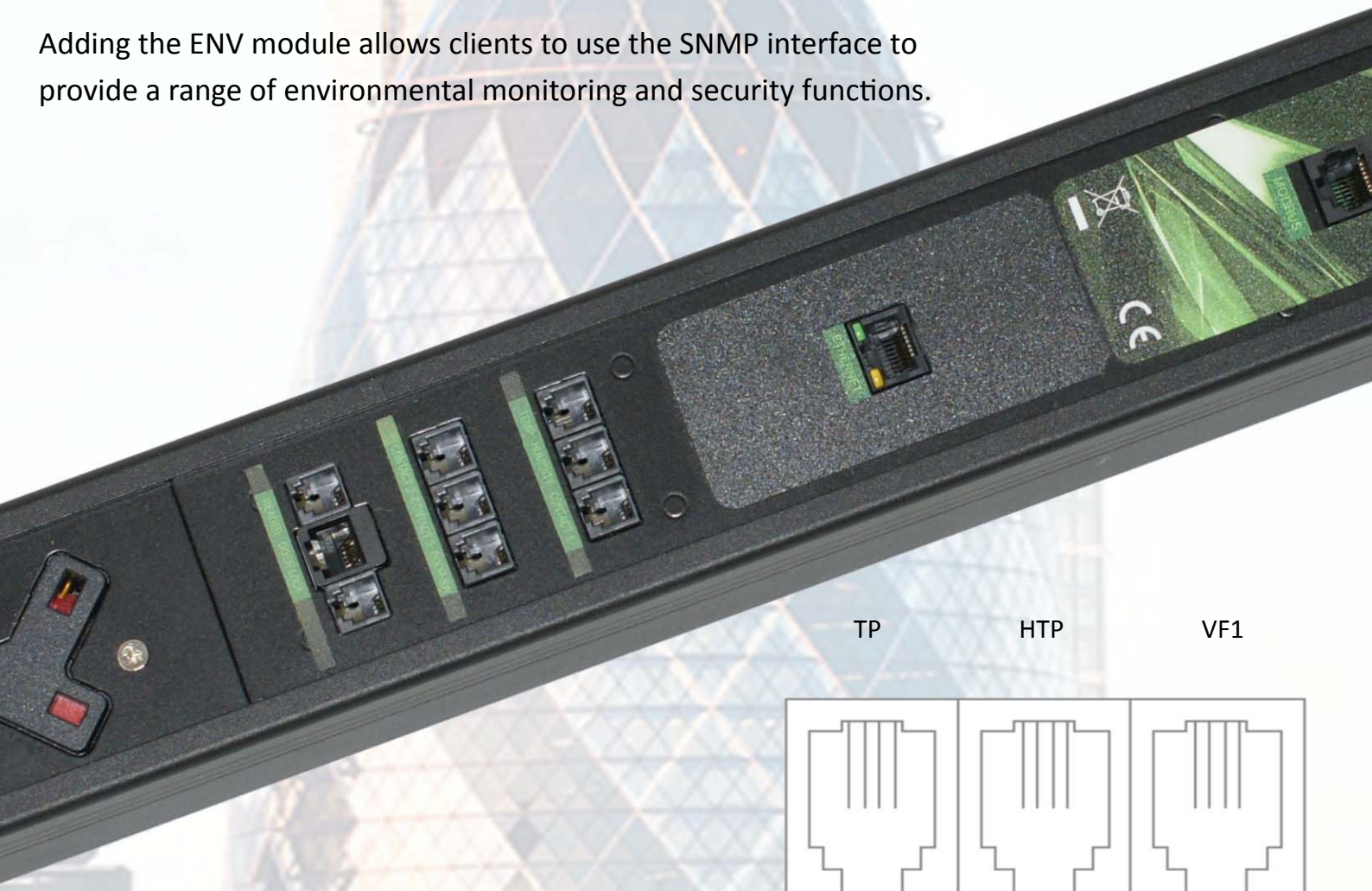
ENV Module Attachment

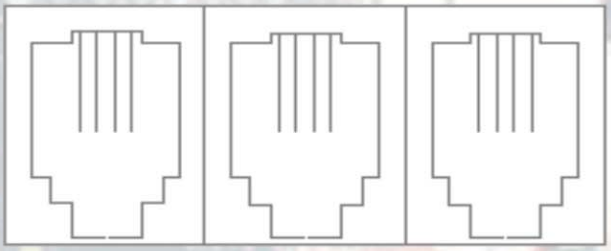
The iPower ENV module can be incorporated into any build configuration of the iPower product range.

Adding the ENV module allows clients to use the SNMP interface to provide a range of environmental monitoring and security functions.

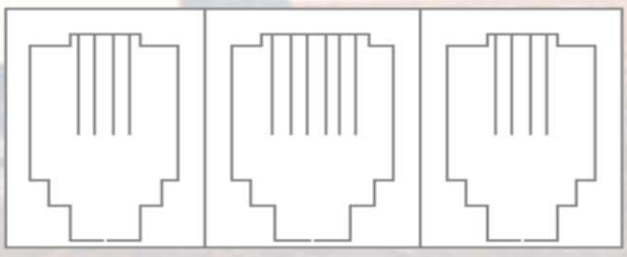


TP HTP VF1

VF2 VF3 Door



Key D/Lock Mon



The ENV module provides the following connections:

- Digital temperature sensor [capable of connecting eight (8) external temperature sensors] (TP)
- Humidity sensor (HTP)
- Three (3) voltage free contact inputs (VF1, VF2, VF3)
- Door status voltage free contact input (Door)
- RS232 keypad, card reader interface with door status indicator output (Key)
- Door lock power and control output (D/Lock)
- LCD display interface (Mon)

ENV Module Connections

TP - 4way RJ11 socket

Pin	Description
1	Ground
2	SDA input/output
3	SCL output
4	5VDC output

HTP - 4way RJ11 socket

Pin	Description
1	Ground
2	Analogue input /SDA IO
3	SCL output
4	5VDC output

VF1 - VF3 - 4 way RJ11 socket

Pin	Description
1	Contact A
2	Contact A
3	Contact B
4	Contact B

Door - 4way RJ11 socket

Pin	Description
1	Contact A
2	Contact A
3	Contact B
4	Contact B

Key - 4way RJ11 socket

Pin	Description
1	Ground & LED -
2	Door indicator LED +
3	RS232 input
4	12VDC @ 200mA max.

LCD port - 4way RJ11 socket

Pin	Description
1	Ground
2	Serial output
3	Serial output
4	12VDC @ 200mA max.

D/Lock - 6way RJ12 socket

Pin	Description
1	Ground
2	Ground
3	Control output (12VDC)
4	Lock monitor line
5	12VDC @ 1.1A max.
6	12VDC @ 1.1A max.

Technical Specifications

Digital temperature sensor

Temperature range	0 to +125 °C
Maximum sensors	8
Accuracy (Temperature Error)	0°C to +85°C = ±0.5 °C nominal
	85°C to +125°C = ±1.0 °C nominal
Resolution	+0.5 °C
Sensor supply voltage	5VDC
Sensor interface	I^2C 5V [TTL/CMOS] logic

Humidity sensor

Humidity range	0-100% Relative humidity
Response Time	8 Seconds in slow moving air @ 25ºC
Stability	< 0.5% RH per year
Accuracy	± 3.0% RH, 0-100% RH
	non-condensing @ 25ºC
Non-linearity	< 1% RH Typical
Repeatability	± 0.1% RH
Resolution	0.05 %RH

Temperature

Temperature range	0 to +123.8ºC (32 to +254.9°F)
Response Time	5 to 30 seconds
Accuracy	±0.4 °C nominal
Repeatability	± 0.1 °C
Resolution	0.01 °C
Sensor supply voltage	5VDC
Sensor interface	I^2C like 5V [TTL/CMOS] logic

Contact inputs

Contact type	Voltage free normally open
	or closed
Contact resistance	2Kohm max.
Contact de-bounce time	10mS

D/Lock

Output drive	Vin-0.57V @ 700mA max.
Energise time	2 S default

RS232 port

Protocol	9600 baud, 8 data bits
	1 stop bit, no parity
Compatibility	0-25V supporting RS232C/D/E

LCD port

Protocol	9600 baud, 8 data bits,
	1 stop bit, no parity