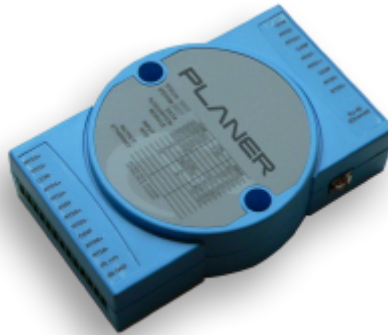


## Assure24seven web-based monitoring

### Kryo-Base modules - network connectivity for all lab sensors

- Web-based products
- Browser access
- 1,000 measurement points
- Temp, level, CO<sub>2</sub> etc
- Email & mobile notifications
- Cost effective - multi-input
- Expandable - future-proof



#### Assure24seven

The Assure24seven suite of products, from Planer, offers users a versatile mix of features and optional capabilities to suit all customer requirements and budgets.

Products are 'web-based' which means that information can be accessed from anywhere in the world, by means of 'web-browsers', so no software is required at the point of access.

A very wide range of input parameters such as temperature, level, humidity etc. can be monitored around the clock. Deviations can instigate public alarms or can be set to send notifications to named individuals by email or mobile phone. Over 1,000 measurement points can be accommodated and the system can start small and be added to, by the user, at any time, without the need of specialists.

A wide variety of standard reports is available, incorporating both tabular and graphical data, and custom reports are easily created, again, by the user, without need of specialist help.

Data is locked forever in a secure tamper-proof store and 'digitally-signed documents' and secure, password protected, log-ins ensure that systems meet the requirements of CFR 21 Part 11 security regulations.

#### Kryo-Base modules

Kryo-Base modules are used to connect measurement devices fitted to laboratory equipment such as freezers, liquid nitrogen storage vessels, incubators etc. with a monitoring system such as Kryo-Assure or Data-Later.

Each Kryo-Base module has a number of input connections, to accommodate various devices - such as such as temperature measurement probes, level, humidity etc - and a single Ethernet connection terminal, which enables the data from the module to be shared across a local area network (LAN).

The Assure24seven system takes advantage of high-integrity, low-cost CAT 5 LAN cabling and there are several Kryo-Base modules in the range, each designed to match particular types of transducer interface.

A **Kryo-Base-PRT7** module, for instance, can accommodate up to seven separate Pt100 3-wire temperature measurement probes. With up to seven devices connected to a single module, a very cost-effective solution is provided. The modules automatically detect broken sensor wires and store maximum and minimum values measured over a given time.

The **Kryo-Base-Analogue** module accommodates up to 8 analogue voltage or current inputs - for instance 4-20mA signals - and from a wide variety of sources such as temperature, humidity, pressure, liquid level, gas concentration etc.

**Kryo-Base-Status** modules have the capacity for up to 6 digital inputs and 6 digital outputs which take the form of voltage-free contacts. Using this module door and lid switches, for instance, can easily be monitored and the Assure24seven system will retain a record of which rooms, freezers, vessels or even containers, have been accessed - how many times, for how long, and on which date etc.

Virtually any physical parameter, whether digital or analogue, can be measured and connected to the Assure24seven system, by means of these modules. Once connected to the LAN the digital data is scaled and securely logged and processed.

Because of the open nature of the Assure24seven system, and the ease with which users can scale and configure new variables, modules can be added at any future date, without the need for specialist programmers or expensive call-outs.

# Assure24seven web-based monitoring

## Kryo-Base modules - network connectivity for all lab sensors

### **Kryo-Base modules:**

#### **Kryo-Base-PRT7:**

- Number of inputs 7
- Input type Pt100 or PT1000 Platinum Resistance Thermometers (Inputs may be mixed within same module)
- Suitable for Precision Temperature Measurement over a range -200 to +200 C

#### **Kryo-Base-Analogue:**

- Number of inputs 8
- Input type 0-150mV, 0-500mV, 0-5V, 0-10V, 0-20mA, 4-20mA ranges
- Suitable for Temperature, Humidity, Pressure, Liquid Levels, Carbon Dioxide/Oxygen Levels etc.

#### **Kryo-Base-Status:**

- Number of inputs 6
- Input type Voltage Free Contact Input - suitable for room and freezer doors and lids etc.
- Number of outputs 6
- Output type Form A Relay Contact Output - suitable for alarm lamps and sounders etc.

### **Kryo-Base combination modules:**

- Kryo-Base-PRT-Status Combined Kryo-Base-PRT7 and Kryo-Base-Status modules for simplified installation.

### **Specifications:**

#### **Physical:**

- External dimensions 180mm high x 254mm wide x 65mm deep
- Weight 1.3kg (including one Kryo-Base-PRT7 and one Kryo-Base-Status unit)
- Protection IP20

#### **Environment:**

- Storage Temperature -25 C to +85 C
- Operating Temperature -20 C to +40 C
- Relative Humidity 10% to 90% non-condensing
- Atmosphere No corrosive gases

#### **Power Requirements:**

- 24VDC+10%/-15%, 4W (power consumption for typical configuration of one Kryo-Base-PRT7 and one Kryo-Base-Status unit)
- Ripple 200mV max peak to peak

#### **Fuses:**

There are no user replaceable fuses. The Kryo-base unit includes an internal fuse that should only be replaced by suitably trained personnel. The fuse must only be replaced after any fault condition has been cleared.

- Fuse type T500mA IEC127

### **Options:**

- Kryo-Watchdog
- GSM Modem
- Wireless Access Point

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