

SURFACE ACQUISITION UNIT (SAU)

WellSystem utilizes the XPIO NILSEN Consulting Inc. Products for real time data acquisition. This version of the XPIO ships with an AC power supply that auto-detects and switches between 115V/25VAC operation.

The XP-IO consumes approximately 13W of power (@115VAC) when connected to a Sentry Gauge. The XP-IO is rated to operate at 14 to 150 degrees F (-10 to 65 degrees C).

NOTE: Do not store the XP-IO in freezing temperatures as it may damage the LCD display.

The XP-IO is designed to make use of its Backlight for the LCD as a small heater in order to avoid having the LCD Freeze.

When specially ordered, the XP-IO can also operate from a 12 VDC supply (typically used for solar/battery operation). The actual input range for the DC version is 9-36VDC. Hence the DC unit can operate from 12VDC or 24VDC (i.e. any voltage in the range).



Specifications

Physical

The XP-IO is enclosed in an anodized aluminum box with the following dimensions:

Height:	12 inches (30.48 cm)
Width:	10 inches (25.4 cm)
Depth:	5 inches (12.7 cm)
Weight:	10.5 lbs (4.75 kg)

Electrical

- Green backplane 4 x 4-20mA INPUTS (12-bit A/D); Read backplane 5 x 4-20mA INPUTS (12-bit A/D)
- 4 x 4-20mA OUTPUTS (16-bit D/A)
- 8 x spare lines which can be used for one of the following:
 - Frequency Output
 - Frequency Input
 - TTL Input
 - TTL Output
 - Pulse Width Modulated Output

Specifications

The XP-IO comes with general-purpose 4-20mA inputs (4 for the green backplane, 5 for the red backplane). These may be used to sample data from any external current-loop device. Through software this data can be scaled, displayed, and logged into memory along with the standard downhole Pressure/Temperature data.

NOTE: when ordered, one or more of these inputs can be configured for 0-5VDC or 0-10VDC inputs.

The XP-IO also has four 4-20mA outputs. Through the XPIO Windows Program, you can configure each of these channels to carry a representation of the decoded value of a downhole tool's Pressure or Temperature. Typically, this feature is used to connect to another Control/Scada system.

Extended Card IO

- 20 x 4-20mA INPUTS (12-bit A/D)
- 6 x 4-20mA OUTPUTS (16-bit D/A)
- 8 x spare lines which can be used for one of the following:
 - Frequency Output
 - Frequency Input
 - TTL Input
 - TTL Output
 - Pulse Width Modulated Output

The XP-IO comes with four general-purpose 4-20mA inputs - the Extended Card adds another 4 4-20mA channels as well as 12 configurable inputs. These may be:

4-20mA
0 to 5VDC
0 to 10VDC
-5 to +5 VDC
-10 to +10 VDC

In order to use the VDC inputs, the Extended Card must be custom ordered.