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❖ **Why do I need a PowerXpress quick connect field device power solution?**

The HART PowerXpress quick connect field device power solution was designed to simplify field device configuration and troubleshooting for 2-wire powered HART field instruments.

The PowerXpress quickly provides HART compatible power and the necessary HART load resistor with two easy connections 1) USB port and 2) Mini-grabber connection to the field device. Your device is powered and HART compatible.

Attaching your modem and milliamp meter with plugs to the PowerXpress allows you to quickly and easily configure your HART devices. The milliamp meter is connected without breaking the mA loop.

❖ **What are the banana jacks on the PowerXpress used for?**

There are two sets of jacks on the PowerXpress. The black "banana" jacks (HART jacks) allow you to quickly connect your HART modem to the PowerXpress for reliable and convenient access to HART device communication. The red and black "tip" jacks (mA jacks) allow you to plug in a milliamp meter using its standard tip probes, without breaking the mA loop. Now you're completely hands free to operate your laptop or handheld HART communicator.

Power solution for HART® devices

❖ **What is the power source for the PowerXpress?**

Many users now configure their HART devices using laptop PC's with USB ports. The PowerXpress USB plug is designed to draw power from your PC's USB port.

In addition and included with your PowerXpress kit is a 110VAC to USB power adapter. The power adapter is plugged into a standard wall socket and the PowerXpress is plugged into the USB port on the adapter.

The AC/USB adapter is particularly useful when using a handheld configurator for device configuration. You can still attach your milliamp meter to the PowerXpress without breaking the mA loop.

❖ **What are the "HART jacks" for?**

The black pair of banana jacks allows you to easily connect your HART modem to the field device. Using the included banana plug adapter kit you can convert your HART modem to banana plugs and still use it with mini-grabbers, also included. Thus eliminating the chance that the HART modem might come loose during configuration or troubleshooting.

❖ **What are the "Tip jacks" for?**

The red and black tip jacks allow you to connect a milliamp (mA) meter directly to the mA field device loop using the mA meters standard tip (0.080") probes. No need to break the mA loop for connection and no chance that your mA meter will come loose during configuration or troubleshooting.

❖ **What value is read by the milliamp meter when connected to the tip jacks?**

When connected to the milliamp (mA) tip jacks you will be able to directly read the field device current with your mA meter (not provided) without breaking the loop or powering down the device. The readings will be in the familiar 4-20mA range to agree with typical values provided by device vendors during mA trim adjustments.

❖ **What does the green LED on the front of the unit represent?**

The green LED confirms that power is being supplied from the USB port and is powering the PowerXpress.

❖ **What is the maximum output current from the PowerXpress?**

PowerXpress™

Power solution for HART® devices

The PowerXpress is designed to provide HART compatible power up to 42mA. The PowerXpress is short circuit protected to avoid damage even if the output mini-grabbers are shorted together.

❖ **What are the extra banana plugs and mini-grabbers included in the kit used for?**

The banana plug/mini-grabber kit (included) allows you can convert your existing HART modem to have banana plugs for quick and reliable hands free connection to the PowerXpress. By attaching the supplied mini-grabbers to the banana plugs you can still use your HART modem in the conventional way.

❖ **How do I connect the PowerXpress to a HART device?**

The red mini-grabber is connected to the field device (+) positive power supply terminal. The black mini-grabber is connected to the field device (-) negative power supply terminal.

❖ **What is the voltage output by the PowerXpress?**

Nominally 24Vdc, with 42mA max current.

❖ **What happens if the PowerXpress mini-grabbers are shorted together?**

The PowerXpress is internally current limited to avoid damage. We don't recommend shorting out the mini-grabbers as it could shorten its overall life, but it is protected.

❖ **How much current is drawn from the laptop (or AC/USB adapter)?**

At a 20mA current load from your HART field device the USB port current draw will be nominally 125mA. Note: USB 2.x compatible ports are designed to supply up to 500mA from each powered port.

❖ **Is the PowerXpress compatible with the HART multi-drop mode?**

Yes. In HART multi-drop mode the PowerXpress is connected to one of the devices and the other devices are then connected (in parallel) to the powered device. Note: When in multi-drop mode the current draw from each device is fixed at 4mA, therefore you can connect up to 10 devices without exceeding the 42mA PowerXpress current limit.

❖ **Can I use the PowerXpress in a hazardous area?**

NO! The PowerXpress is for use only in a general purpose area or one that has been tested and found safe according to the hot work permit procedures developed by your company.

❖ **How long is the warranty?**

Power solution for HART® devices

The PowerXpress warranty is 1 year from date of purchase. Please call 678-637-9062 to report any problems.

❖ **Can I use the PowerXpress on a device that is installed and already powered?**

No, the PowerXpress is designed to supply the required device power. However, in many cases when working in the field many powered devices do not include the necessary HART load for communication. In this case you can disconnect the field power and connect the PowerXpress to supply power and create the HART network for local device configuration.

❖ **If the green light is not on what is the problem?**

If the PowerXpress green power light is not on, the USB port is not supplying power. On some PC's the USB ports can be turned off. Try using another port or reconfiguring your PC to turn on the necessary USB port. You may also use the included 110Vac/USB adapter to power your PowerXpress.

❖ **What kind of software or drivers do I need to run the PowerXpress?**

The PowerXpress does not require any software or drivers and no PC configuration is required.

❖ **Can I use the PowerXpress on a Foundation fieldbus or Profibus device?**

No. The PowerXpress is designed for HART devices only. It will not damage a Foundation fieldbus H1 device nor a PROFIBUS PA device, but communication is not guaranteed. However, stay tuned since we are always developing new products.