

High Country Tek, Inc.

Optical Data Interface Unit - Opto3000

Electronic Control Solutions for the Global Fluid Power Industry



Application Information:

- Stops unauthorized users from accessing settings
- Allows in-field connection to many HCT 'Specialty Controllers'
- Interface between PC set-up program and module
- Communications under extreme environmental conditions
- Rapid data transfer for PC update and real time diagnostics.

Product Features:

- Common communications platform for HCT controllers.
- Receive and Transmit LED's to show port activity.
- USB powered unit, no power supplies or batteries.
- Supplied with bi-directional USB connection extension cable.
- Auto port initialization, detection and location.
- Infra-red (IR) transmit and receive technology.
- Uses controller 'Power ON' led as infra-red transmitter.

Specification Overview:

Housing Type:	HCT unique enclosure
Supply Voltage:	+5VDC from USB supply on PC
Input Supply Current:	150mA (max)
Housing Material:	ABS Plastic,
External Dimensions:	~2.6L x ~2.6W x ~1.1D inches
Temperature range:	-40 to +85 ºC (operational)

Product Overview:

The unit is fully compatible with Windows[®] XP Professional, Vista Business, Ultimate and Windows[®] 7-32 & 7-64 versions. Please contact your distributor or HCT for information on Vista compatibility.

This unit is designed to operate directly from any of the host PC's USB ports. The user must take care to install the correct USB drivers, either supplied with the HCT user software or by visiting the HCT website and downloading the required drivers free of charge.

This style of 'non contacting, non electrical communications' offers full isolation between PC and controller and is extremely rugged in physical nature. The method is not prone to connector breakage or 'clogging' with foreign matter from the working environment and is free from failure caused by electrolysis or common short circuits as seen with communications alternatives used by others.

The optical communications also allows high speed data transfer between the host PC / laptop and the controller for real time



Order P/No: Opto3000

diagnostics and fast set-up or programming.

All the controller units inputs, outputs and options are available for display within the GUI software (GUI - Graphical User Interface) which is available for the controller unit.

The Opto3000 and controller requires that the correct interface software (GUI) is loaded onto the host PC and run to establish communications.

The program will automatically poll all of the com ports available detect and check the Opto3000 unit for correct operation, allocate the respective port for communications while at the same time setting the fastest reliable baud rate and default port settings.

When using the Opto3000 with any HCT user software, the GUI provides an 'EXIT' button on the user PC screen (not the RED 'X' in normal Windows top left corner). This should be used as this not only exit's the current program but also releases the USB communications port.



Ordering Guide:

The Opto3000 unit comes complete with a 3 foot (1M) USB cable and is ready to use. If during installation the PC asks you for the USB drivers, they can be located on the user software CD that came with the controller or available on the High Country Tek, Inc website free of charge.

Once the software is installed on the host PC running a Windows operating system, ensure that the Opto3000 is connected to the correct serial or USB port allocated.

To make certain we always offer you the best product for your application, please contact our sales and customer support department at **High Country Tek, Inc.** in California to discuss your project.

Connection Details:



• Wipe controller transmit and receive LED's with soft cloth before attaching the Opto3000 communications head to ensure good infra-red communications.

• Ensure the Opto3000 send/ receive head is firmly and correctly attached to chosen HCT controller before starting the PC graphical user interface software.

• Ensure the controller supply voltage is present and it is powered-up correctly to allow communications to take place.

If communications become unstable (I.e. controller reports non communication OR the Opto3000 keeps resetting) , check that the Opto3000 power supply is correct and that no foreign matter is blocking the optical communications head or controller LED's.



- DO NOT expose the Opto3000 unit to liquids or damp/humid operating conditions as it is NOT sealed.
- The Opto3000 is not designed to be used for continuous communications. If this mode of operation is required, please contact HCT engineering for a solution.

NOTE:-

The Opto3000 is used with many High Country Tek 'specialty controllers', the picture above is used to illustrate where the common mounting ferrule and transmit/receive LED's are located on most units.

Please ensure the latest USB drivers packaged with the Graphical User Interface (GUI) software supplied for your controller are installed or downloaded free from the HCT website

Need More Information ?

For the latest company and product information, visit us at **www.hctcontrols.com** or for customer service, pricing, order placement and application support, contact us through E-mail at: **info@hctcontrols.com**



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021-00187_Rev_A.1-Opto3000-CS

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