

xPULSE INC Software

Incremental Programmable Encoder



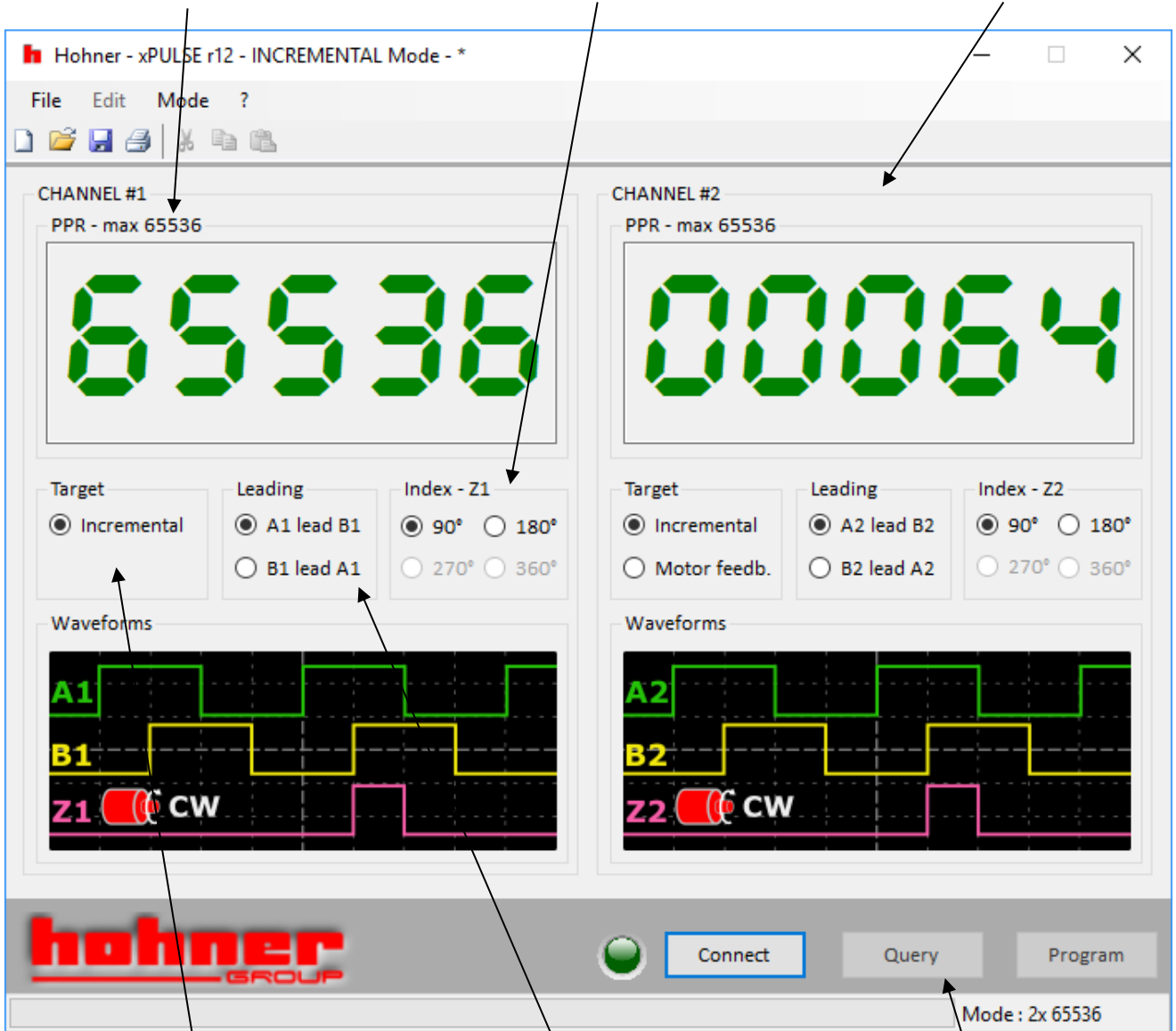
- Power supply 24 volts DC
- Dual Channel Encoder
- 3 differential output / channel

IDE Interface

CHANNEL #1 - PPR
Select the Incremental resolution

CHANNEL #1 - Index
Select the index dimension

CHANNEL #2
Same control as CH #1



CHANNEL #1 - Target
Select the Encoder Type

CHANNEL #1 - Leading
Select the counting direction

Encoder Connection
Command to connect with the xPulse Encoder

Introduction

The software is intended to program and define the xPULSE incremental encoders.
The software covers all the available features of this encoder as follows:

- Incremental Resolution up to 65536 pulses per revolution. (It depends on encoder type, PR01 version is restricted to 2048 ppr, PR02 is restricted to 65536 and PR03 to 10000 ppr)
- Selectable counting direction (A leading B or B leading A)
- Selectable index dimension in 4 steps: 90°, 180°, 270°, 360° (it depends on encoder type).
- Motor feedback signal: outputs can be configured to simulate hall sensors, instead of normal incremental signals
- Up to 6 differential outputs
- Up to 2 encoder channels. Each channel is completely independent

All following instructions are applicable to both channels (except for Motor Feedback target, it is available only for CH #2)

Note

PPR

Type in the resolution required
Maximum number depends on encoder version (PR01 and PR02) and output target, as follow:

Encoder Version	PR01		PR02		PR03	
	Incremental	Motor Feedback	Incremental	Motor Feedback	Incremental	Motor Feedback
Max resolution	2048 ppr	32 poles pairs	65536 ppr	Nd	10000 ppr	nd

Note

TARGET

Choose the radio button for the required target type

Options:

- Incremental for standard incremental encoder signals
- Motor Feedback for Hall simulation signals

Note

Only available on Channel #2

LEADING

Choose the radio button for the required counting direction

Options:

- A leading B
- B leading A

Note

INDEX

Choose the radio button for the required format of the index channel (also known as 'O' or 'Z' or Marker)

Option:

- 90° (Locked to A_{high} and B_{high})
- 180° (Locked to A_{high})
- 270° (Locked to A_{high} or B_{low})
- 360° (Locked to A_{high} or A_{low})

Note

This option is not available if Motor Feedback target type is selected

WAVEFORM

This is a visualization of the selected parameters

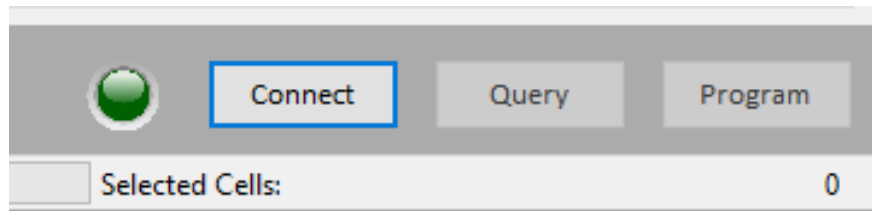
Note

OFFLINE Setup

User can select this via the 'Mode' menu
This allows programming and saving of the encoder parameters for future use

Note

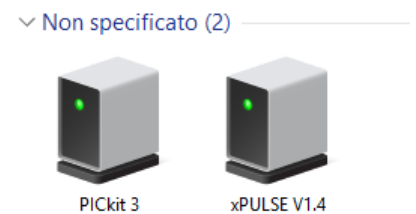
ENCODER CONNECTION



Here you can connect to the encoder via USB

Before connect check that the drivers are installed. Windows should automatically install it, but if not it is located here: <http://www.ftdichip.com/Drivers/D2XX.htm>

Encoder is correctly recognized when it appears in 'Devices and Printers' in the Control Panel as below:

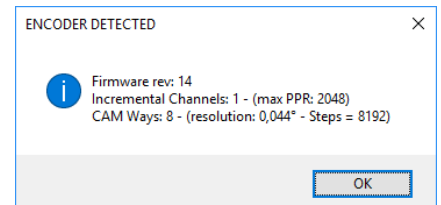


CONNECT

Click the connect button to connect with your encoder. If the xPulse encoder is found then a window shows the encoder information.

INC Software can program only incremental xPULSE encoders. If the user is trying to connect a CAM Encoder then the software will warn the user that the connected encoder is not suitable for this software.

Only one encoder must be connected to computer at one time.



QUERY

Click here to read back setup data from the encoder

PROGRAM

Click here to program the set up data to the connected encoder.
Do not disconnect the encoder until completed.

Note

Revision History

Release	Release Date	Chapter	Modification	Page
A1	17-10-2016	-	Emission	-
A2	02-11-2016	-	Minor changes	-
A3	17-02-2017	-	Added PR03 version	3
