



USB controlled isolated I/O system

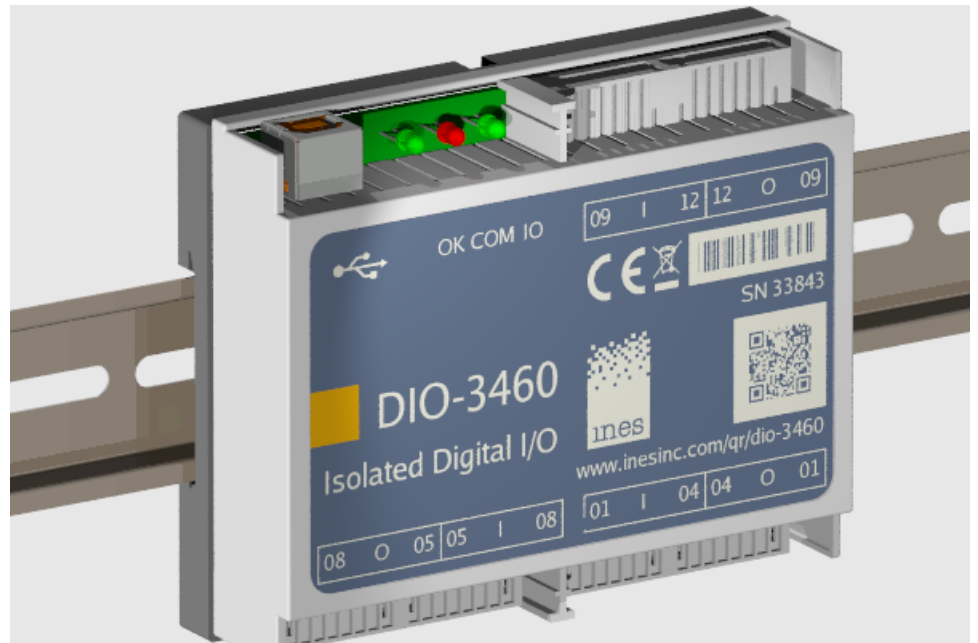
- **Hardware Watchdog**
- **WAGO Cage Clamp connectors**
- **Linux 32/64 bit**

Features

- **12 Relay Outputs**
- **12 Optocoupler Inputs**
- **High Retention USB connector**

Applications

- **Industrial I/O**
- **Safety Circuits**



Overview

The DIO-3460 is a space-saving industrial I/O module. It provides for save cable connections due to the use of WAGO Cage Clamp connectors rather than screw terminals (which, even if properly torqued at installation time, might loosen, especially whenever there are vibrations or significant changes of temperature).

A high retention USB connector allows for 50% more retention force than the standard USB preventing accidental disconnect.

Software

Application software can read the state of input ports and control the state of the relay outputs.

Integrated watchdog functionality opens all relay contacts if the communication with the controlling application program is broken, or an internal firmware stuck has been detected.



Release Time: ≤ 0.1 ms
Supply Voltage (USB): $5V \pm 5\%$
Supply Current (USB): 180 mA max.

Isolation (USB to I/O)

Creepage distance (PCB design): ≥ 3.2 mm
Breakdown Voltage (Relais, contact to coil): 4.25kV DC,
3kV rms AC
Isolation Voltage (Optocouplers): 2.5kV rms AC, 60
seconds

Environmental and Physical

Size (including connectors): 105 mm W x 113 mm H x
32 mm D
Weight (net, including connectors): 160 g
Operating ambient temperature: 0 ... 50°C
Storage temperature: -20 ... 80°C
Relative humidity: 5 ... 95%, noncondensing
USB connector: Extraction force ≥ 15 N, Mating force \leq
35N

Ordering Information

DIO-3460 - Adaptor (excluding connectors, no USB cable),
Software Download Card
DCK-3460 - Connector Kit with 6 connectors WAGO
733-108 and USB cable (1m length)

Important Notice

Trademarks — Product, service, or company names used in this document are for identification purposes only and may be either trademarks or registered trademarks of the relevant trademark owners. LabView, NI-488.2, LabWindows, PXI, DASyLab, DIAdem are trademarks or registered trademarks of National Instruments Corp., USA, in the United States and/or other countries. Microsoft, Windows, Windows NT, Windows CE, Windows 2000, Windows ME, Windows XP, Windows Vista, Visual Basic, Visual-C++ are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

Specifications — All specifications are subject to change without prior notice.

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, Ines does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. Ines takes no responsibility for the content in this document if provided by an information source outside of Ines. In no event shall Ines be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory. Notwithstanding any damages that customer might incur for any reason whatsoever, Ines' aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the Terms and conditions of commercial sale of Ines.

Software — ALL SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.