DIO-3460 Datenblatt

D-1733

USB controlled isolated I/O system

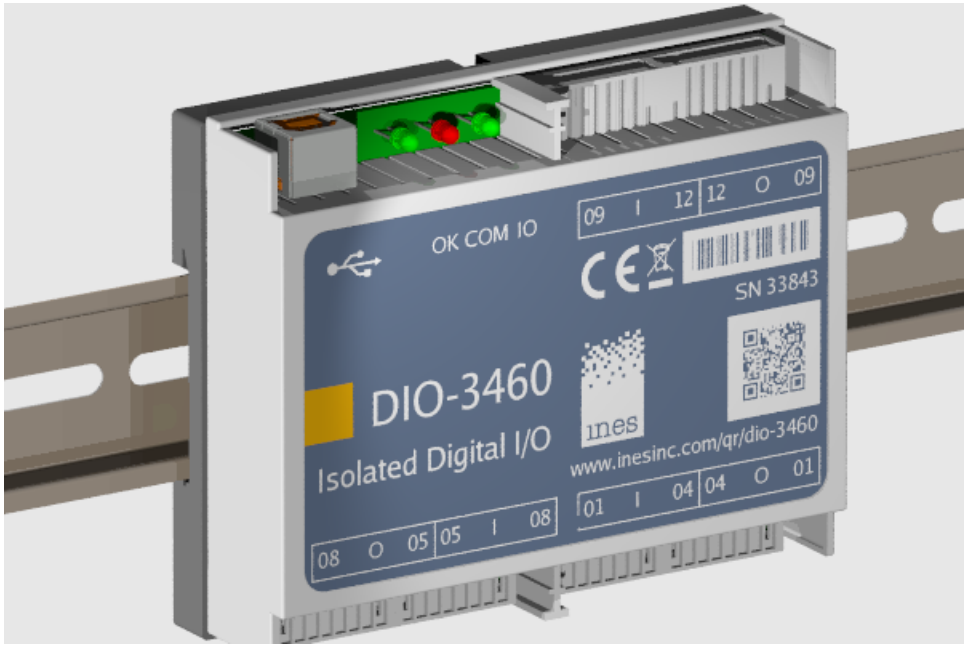
- **Hardware Watchdog**
- **WAGO Cage Clamp connectors**
- **Windows 10, Linux, 32/64-bit**

Merkmale

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

Anwendungen

- **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.

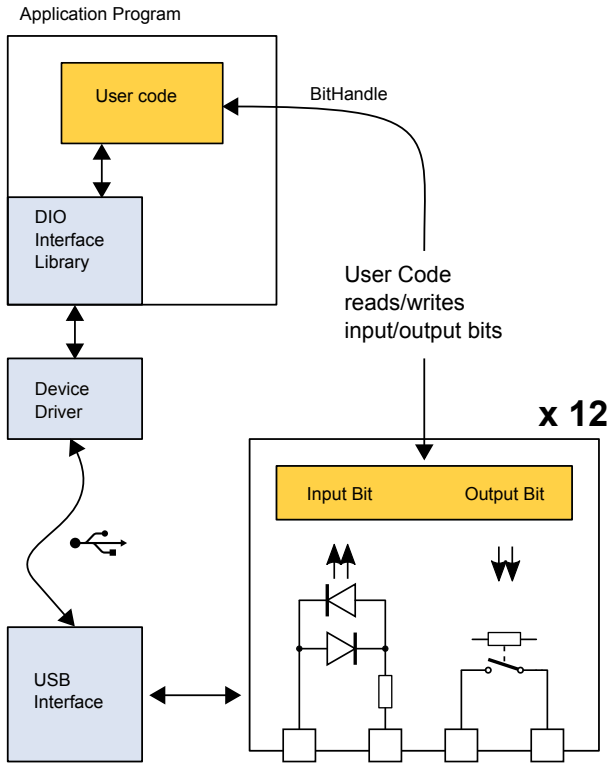
Software

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.

Der Abschnitt WICHTIGE HINWEISE am Ende dieses Dokuments betrifft Verfügbarkeit, Gewährleistung, Änderungen, geistiges Eigentum und weitere rechtliche Einschränkungen.

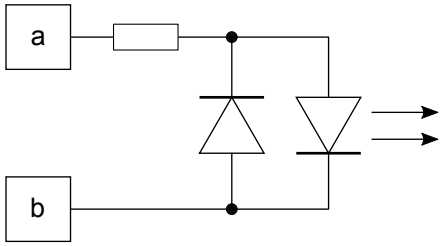
DIO Architecture



Spezifikationen

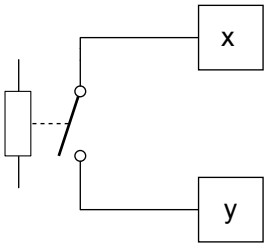
Input Data

Maximum Input Voltage: ±30V (DC/rms AC)
Input: Logic L ≤ +-0.8V, Logic H ±5V … ±24V, (±0.5mA … ±3mA)



Relay Output Data

Warning: Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay. Protective circuits need to be used.



Rated Power (any DC combination of V/A not to exceed their individual limits)**:** ≤ 10W
Switching Voltage (DC or peak AC)**:** ≤ 200V
Switching Current (DC or peak AC)**:** ≤ 0.5mA
Carry Current (DC or peak AC)**:** ≤ 1A
Contact Resistance (@0.5V/50mA)**:** ≤ 1mOhm
Breakdown Voltage across contacts (DC across contacts, according to EN60255-5)**:** ≥ 250V

Operating Time (incl. bounce; measured with w/ nominal voltage)**:** ≤ 0.5ms
Release Time: ≤ 0.1ms
Supply Voltage (USB)**:** 5V ± 5%
Supply Current (USB)**:** 180 mA max.

Isolation (USB to I/O)

Creepage distance (PCB design)**:** ≥ 3.2 mm
Breakdown Voltage (Relays, 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%, non-condensing
USB connector: Extraction force ≥ 15N, Mating force ≤ 35N

Bestelldaten

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

Wichtige Hinweise

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, the publisher 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. The publisher takes no responsibility for the content in this document if provided by an information source outside of the publisher. In no event shall the publisher 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, the publishers' 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 the publisher.

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.

B2B only — Our range of products and services is directed exclusively at commercial customers, institutes and public authorities, as well as other natural or legal persons or partnerships with legal capacity, who, when concluding a legal transaction, act in the exercise of their commercial or independent professional activity. Any business to consumers (i.e. natural persons who conclude a legal transaction for purposes which can predominantly be attributed neither to their commercial nor to their self-employed professional activity) is excluded.

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 NONINFRINGEMENT. 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.