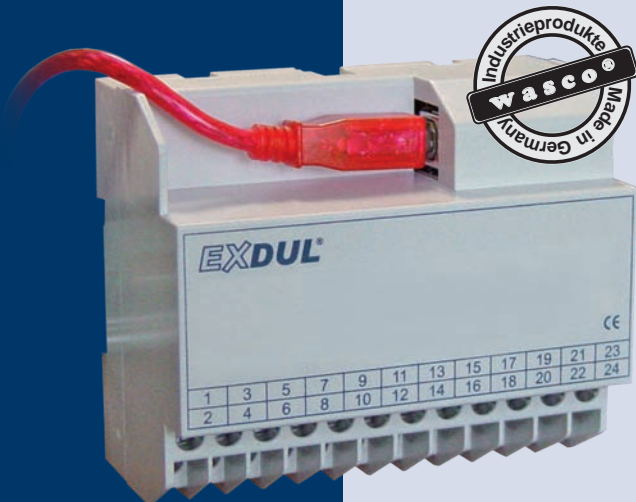


EXDUL-342S

USB Module with 16 Optocoupler Inputs, 2 Relay Outputs and Counter



16 optocoupler inputs

2 relay outputs

2 16-bit counters

USB 2.0 compatible

EXDUL-342S features 16 digital inputs and two digital outputs each of which is galvanically isolated. Electrical isolation at the inputs is made by high-quality optocouplers with integrated Schmitt trigger function. Electrical isolation at the outputs is made by special high power relays managing a switching current of 2 A. Two of the 16 optocoupler inputs are programmable and usable as digital counters if required.

Connecting to a computer is made simple and uncomplicated Plug & Play via a USB interface. The required power supply can be provided via USB port or by an external voltage source

The module has a 24-pin screw terminal for connection of the input optocouplers and output relays and external power supply. The compact chassis enables the module to be used as a portable device with a notebook. For mechanical engineering control applications it can also easily be attached to a DIN mounting rail.

SPECIFICATIONS

Digital optocoupler inputs

16 input channels with galvanic isolation, common ground connection (cathodes shared)

2 of the channels programmable as counter inputs

Optocoupler with integrated Schmitt-Trigger function

Overvoltage protection diodes

Input voltage range

high = 10 ... 30 V

low = 0 ... 3 V

Input frequency max. 10 kHz

Digital relay outputs

2 channels galvanically isolated

Relay contact A with one terminal connection each, relay contact B with shared termination

Contact: 1 NO contact

Contact current rating: max. 2 A

Contact voltage rating: max. 30 V AC / 30 V

Contact power rating: max. 60 VA / 60 W

Mechanical lifetime: max. 20 * 10⁶ switching cycles without load

Contact lifetime: 2 A, 30 V AC/DC at switching contact, max. 10⁵ switching cycles

Switching frequency under load: max. 10/min

Switching frequency without load: max. 1200/min

Switching time: typ. 5 ms

Release time: typ. 2 ms

Fall time NO contact: < 1 ms

Counters

2 programmable digital 16-bit counters (2 of the 16 input optocouplers are assigned)

Counting frequency: max. 5 kHz

Power Supply

+5V via the PC's USB Port. It may be necessary to configure your operating system software to obtain appropriate power requirements.

+10 V...+24 V via external power supply

USB interface

USB 2.0 compatible

USB connection Plug-and-Play (hot swappable)

Module connections

1 * 24pin screw terminal

1 * USB port type B

USB connecting cable

1 * USB plug type A

1 * USB plug type B

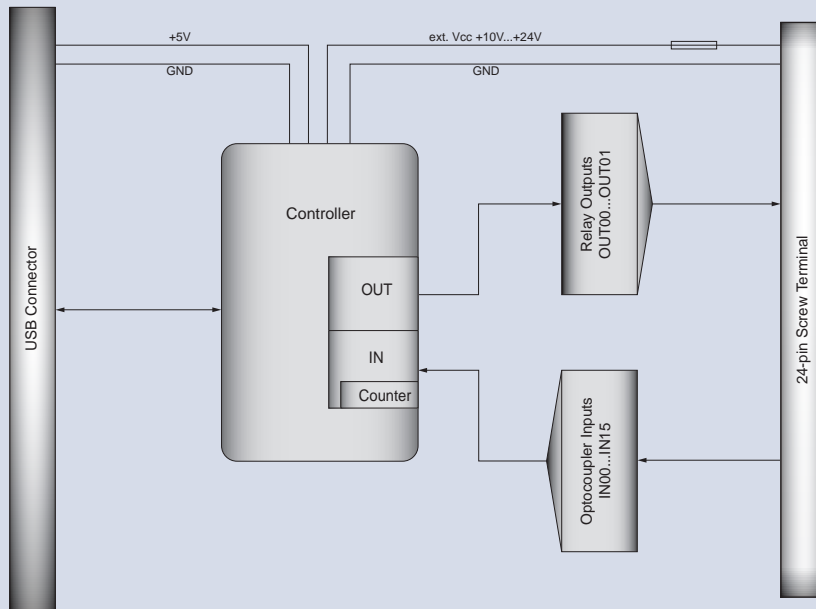
Product dimensions

105 mm x 89 mm x 59 mm (l x b x h)

Casing

Plastic casing with integrated snap-on technology for top-hat rail mounting to DIN EN. Suitable for control and engineering technology mounted to control and distribution boxes, surface mounting or mobile use on a desk.

BLOCK DIAGRAM

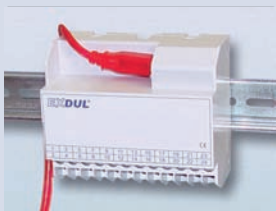


PIN ASSIGNMENT

Each single anode of the input optocouplers is individually led to the 24-pin screw terminal block CN1, the cathodes share one screw terminal. Contact B of the output relays share one screw terminal, whereas each single contact A is fed to individual screw terminals of CN1. Screw terminals Vcc_EXT and GND_EXT are allocated for application of an external power supply of 10 ... 24 V.

| Screw terminal CN1 | | | |
|-----------------------|----|----|------------------|
| IN01+ / Counter2 | 2 | 1 | IN00+ / Counter1 |
| IN03+ | 4 | 3 | IN02+ |
| IN05+ | 6 | 5 | IN04+ |
| IN07+ | 8 | 7 | IN06+ |
| IN09+ | 10 | 9 | IN08+ |
| IN11+ | 12 | 11 | IN10+ |
| IN13+ | 14 | 13 | IN12+ |
| IN15+ | 16 | 15 | IN14+ |
| NC | 18 | 17 | IN00...15- |
| OUT01A | 20 | 19 | OUT00A |
| NC | 22 | 21 | OUT00...01B |
| GND_EXT | 24 | 23 | Vcc_EXT |

ASSEMBLY AND APPLICATION OPTIONS



Top-hat Rail Mounting



Wall Mounting



Mobile Use on a Desk

PROGRAMMING

Driver installation from enclosed CD. The accompanying CD provides sample programs for Microsoft Visual C++, Microsoft Visual Basic 2005 and Microsoft Visual C# 2005

SCOPE OF DELIVERY

USBModule EXDUL-342S
USB connection cable (Typ A-B) 3m long
German Description (English on request)
Programs for installation and programming examples

ORDER INFORMATION

EXDUL-342S EDP-No. A-385620
USB Optocoupler/Relay I/O Module

SUITABLE ACCESSORIES

DR-60-24

EDP-No. A-3425

Power supply providing one output 24 V / 2,5 A, closed construction design, contact-protected screw terminals, overload protection by current limitation, Power-On-LED



F4652-24-Set

EDP-No. A-351024

Industrial high-power relay combination of two change-over contacts 250 V / 8 A and free-wheeling diode, snap-on technology for DIN EN top-hat mounting



For more detailed information about the here listed and other accessories we refer to the corresponding data sheets