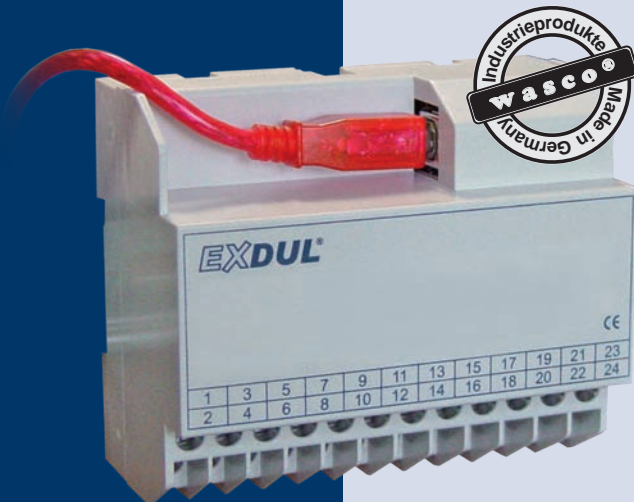


EXDUL-336S

USB Module with 10 Optocoupler Inputs, 8 Relay Outputs and Counter



10 optocoupler inputs

8 relay outputs

2 16-bit counters

USB 2.0 compatible

EXDUL-336S features ten digital inputs and eight digital outputs each of which is galvanically isolated. Electrical isolation at the inputs is made by top-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 ten optocoupler inputs are programmable and usable as digital counters if required.

Connecting to a computer is made quickly and conveniently 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

10 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

8 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 VAC at NO 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 10 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 pluggable)

Module connections

1 * 24pin screw terminal
 1 * USB port type B

USB connecting cable

1 * USB plug type A
 1 * USB plug type B

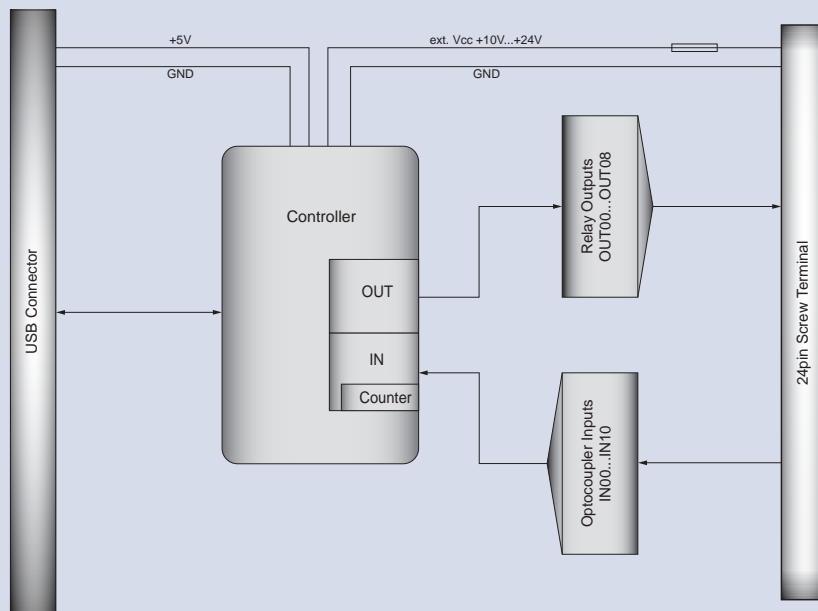
Product dimensions

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



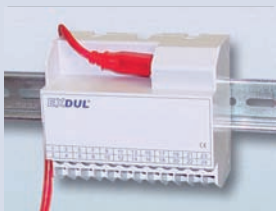
PIN ASSIGNMENT

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 also 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

OUT01A	2	1	OUT00A
OUT03A	4	3	OUT02A
OUT05A	6	5	OUT04A
OUT07A	8	7	OUT06A
NC	10	9	OUT00...07B
IN01+	12	11	IN00+ / Counter1
IN03+	14	13	IN02+
IN05+	16	15	IN04+ / Counter2
IN07+	18	17	IN06+
IN09+	20	19	IN08+
NC	22	21	IN00...09-
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-336S
USB connection cable (Typ A-B) 3m long
German Description (English on request)
Programs for installation and programming examples

ORDER INFORMATION

EXDUL-336S EDP-No. A-385320
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