wasco®

EXDUL-318S

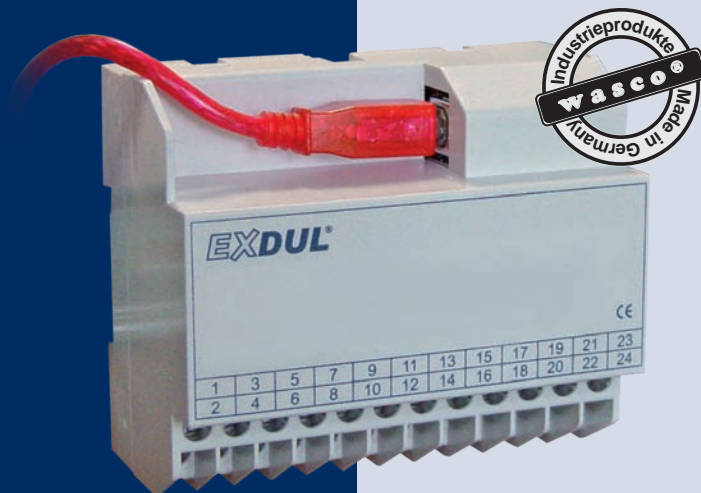**USB Module with 11 Optocoupler Inputs, 8 Optocoupler Outputs and 6 Counters**

11 optocoupler inputs

8 optocoupler outputs

6 counters 32 Bit

The EXDUL-318S provides 11 digital inputs and eight digital outputs galvanically opto-isolated via high-quality optocouplers. The bipolar inputs are protected with additional overvoltage protection diodes. The outputs, protected with reverse polarity protection diodes, can switch 1A per channel.

Six of the 11 optocoupler inputs can also be programmed as hardware-supported 32-bit counter inputs if required.

The necessary operating voltage to the module is provided by either the USB port of the computer or via an external voltage source.

The module provides a 24-pin screw terminal block for connecting the external power supply as well as the input and output optocouplers.

The compact chassis enables the module to be used as a portable device with a notebook. For mechanical or control engineering it can also be easily wall mounted or attached to DIN mounting rail.

SPECIFICATIONS

Digital Optocoupler Inputs
11 bipolar channels galvanically isolated
Optocoupler contact A with one terminal connection each, Optocoupler contact B sharing one terminal
Overvoltage protection diodes
Input voltage ranges
  high = 10 .... 30 V
  low = 0 .... 3 V

Digital Optocoupler Outputs
8 output channels galvanically isolated
Optocoupler contact A with each one terminal connection, Optocoupler contact B sharing one terminal
Reverse polarity protection diodes
Switchable freewheeling diodes at all of the channels
Voltage CE: max. 30 V
Output current: max. 1A per channel
Switching time typ. 60µs (24V, 100mA)
Release Time: typ. 250µs (24V, 100mA)

Counters
6 hardware supported programmable digital 32-bit counters (6 of the input optocouplers are assigned)
Counting frequency: max. 5 kHz

Power Supply
  +5 V (via USB port of the PC)
  +10 V...+30 V (via external power supply)

USB interface
USB 2.0 compatible
USB connection Plug-and-Play (hot plug-gable)

Connection Terminals
1 * 24-pin screw terminal block
1 * USB port type B

USB connecting cable
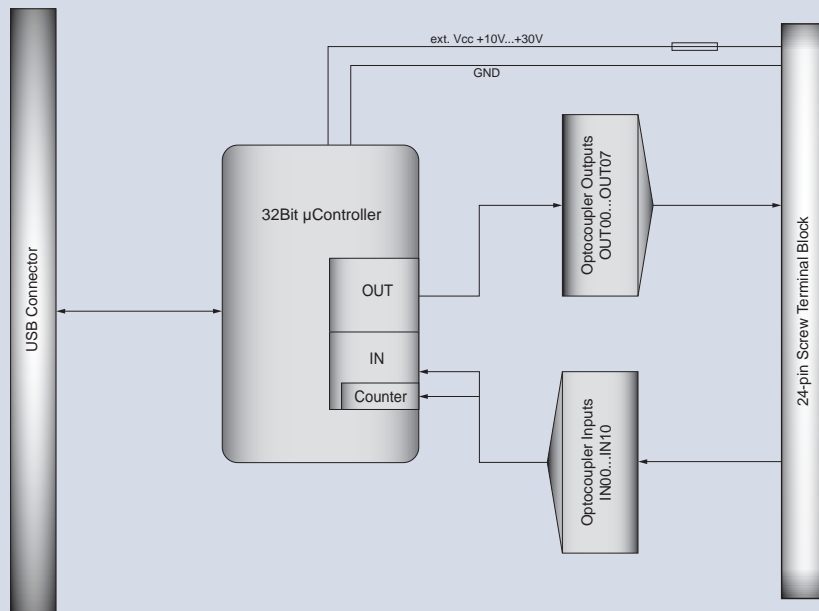1 * USB plug type A
1 * USB plug type B

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.
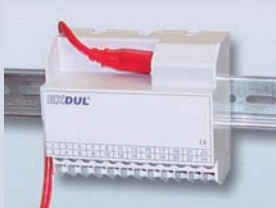
BLOCK DIAGRAM

ext. Vcc +10V...+30V

GND

USB Connector

32Bit µController

OUT

IN

Counter

Optocoupler Outputs
OUT00...OUT07

Optocoupler Inputs
IN00...IN10

24-pin Screw Terminal Block

PIN ASSIGNMENT

Terminals Vcc_EXT und GND_EXT are provided for an application of 10 ... 30 V voltage supply.

**Screw-Terminal
CN1**

DOUT01+	2	1	DOUT00+
DOUT03+	4	3	DOUT02+
DOUT05+	6	5	DOUT04+
DOUT07+	8	7	DOUT06+
DOUT_D	10	9	DOUT00 .. 07-
DIN01 / Counter1	12	11	DIN00 / Counter0
DIN03 / Counter3	14	13	DIN02 / Counter2
DIN05 / Counter5	16	15	DIN04 / Counter4
DIN07	18	17	DIN06
DIN09	20	19	DIN08
DIN_COM	22	21	DIN10
GND_EXT	24	23	Vcc_EXT

ASSEMBLY AND APPLICATION OPTIONS

Top-hat Rail Mounting

Wall Mounting

Mobile Use on a Desk

PROGRAMMING
Windows®:
Driver and program examples for Java, VB.NET, C++.NET, C#.NET, LabView Tutorial
Linux®:
Driver and program examples for C, C++ and Java (see manual)
on enclosed CD or download at:
www.messcomp.com, Section Support - Software

SCOPE OF DELIVERY
USB Module EXDUL-318S
USB connection cable (Typ A-B) 3m long
German Description (English on request)
Installation and sample programs

ORDER INFORMATION
EXDUL-318S   EDP-No. A-384520
USB Optocoupler I/O Module

SUITABLE ACCESSORIES

DR-60-24   **EDP-No. A-3425**
Switching power supply providing one output 24 V / 2,5 A; closed construction design, touch-protected screw terminals, overload protection by current limitation, Power-On-LED

F4652-24-Set   **EDP-No. A-351024**
Industrial power relay combination with two changeover contacts 250 V / 8 A and free-wheeling diode, snap-on technology for DIN EN top-hat rails

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

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