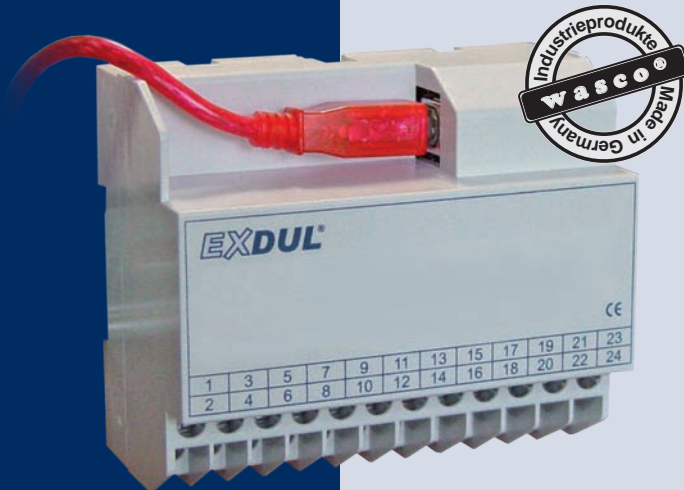


EXDUL-381S

USB Module with 8 Analog Inputs, 8 Optocoupler Inputs, 2 Optocoupler Outputs



8 A/D inputs 16 bit

8 A/D inputs single-ended
or

4 A/D inputs differential

8 optocoupler inputs

2 optocoupler outputs

5 Counters 32 bit

SPECIFICATIONS

EXDUL-381S provides either eight single ended or four differential 16-bit A/D input channels. Several bipolar input voltage ranges (+/-0.63 V, +/-1.27 V, +/-2.55 V, +/-5.1 V, +/-10.2 V) can be adjusted. The conversion process including the associated configuration of the A/D components (selection of range and channel) is triggered by software commands. Additionally the module provides eight digital inputs and two digital outputs which are opto-isolated galvanically by high-quality optocouplers and equipped with additional protection diodes. Special high power output optocouplers cope with a switching current up to 150 mA.

The USB Interface or an external power supply powers the module with the required operating voltage. The module provides a 24-pin screw terminal block for connecting the external power supply as well as the analog/digital inputs and outputs.

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.

A/D inputs

8 inputs single-ended (se)
or 4 inputs differential (diff)
or combined se/diff selectable via software
Resolution: 16 bit
Input voltage range bipolar:
+/-0.63 Volt, +/-1.27 Volt, +/-2.55 Volt,
+/-5.1 Volt, +/-10.2 Volt
FIFO: 10000 values
Input resistor: 500 MΩ
Over voltage protection: 50V
Measuring cycle: 100kHz

Optocoupler inputs

8 bipolar channels, galvanically isolated
Over voltage protection diodes
Input voltage range
high = 10..30 Volt
low = 0..3 Volt

Optocoupler outputs

2 channels, galvanically isolated
High capacity optocouplers
Reverse polarity protection
Output current: max. 150 mA
Switching voltage: max. 50 V

Counters

5 programmable counters 32 bit (occupying
5 optocoupler inputs)
Counting frequency: max. 5 kHz

Operation voltage

via USB
or via external power supply
+10 V...+30 V

USB Interface

Compatible with USB 2.0
USB Connection Plug and Play (hot-pluggable, connectable at operating system)

Connection Terminals

1 * 24-pin screw terminal block
1 * USB socket Type B

USB connection lines

1 * USB plug Type A
1 * USB plug Type B

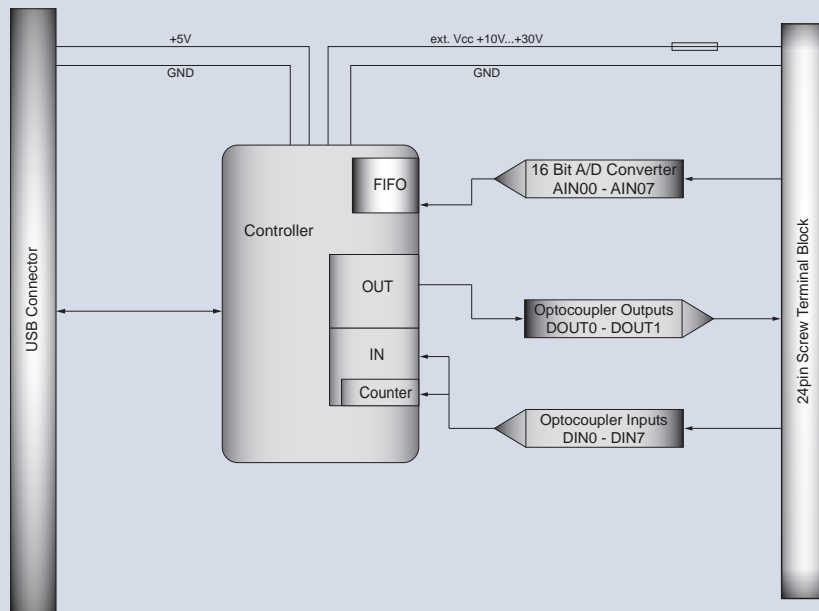
Dimensions

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

Casing

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

BLOCK DIAGRAM



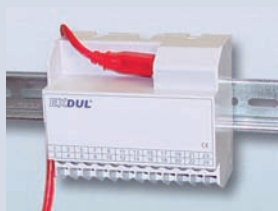
PIN ASSIGNMENT

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

Screw-Terminal CN1

AIN01+	2	1	AIN00+
AIN03+	4	3	AIN02+
AIN05+	6	5	AIN04+
AIN07+	8	7	AIN06+
AGND	10	9	AGND
DIN1 / Counter1	12	11	DIN0 / Counter0
DIN3 / Counter3	14	13	DIN2 / Counter2
DIN5	16	15	DIN4 / Counter4
DIN7	18	17	DIN6
DOUT+	20	19	DIN_COM
DOUT1-	22	21	DOUT0-
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-381S

USB connection cable (Type A-B) 3m long

German Description (English on request)

Installation and sample programs

ORDER INFORMATION

EXDUL-381S

EDP-No. A-381760

USB Optocoupler I/O Module

SUITABLE ACCESSORIES

DR-60-24

EDP-No. A-3425

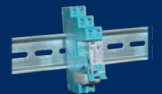
Power supply providing one output 24 V / 2,5 A, closed construction design, contact-protected screw terminals, overload protection by current limitation, Power-On-LED



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

Product and company names mentioned may be trademarks of their respective owners