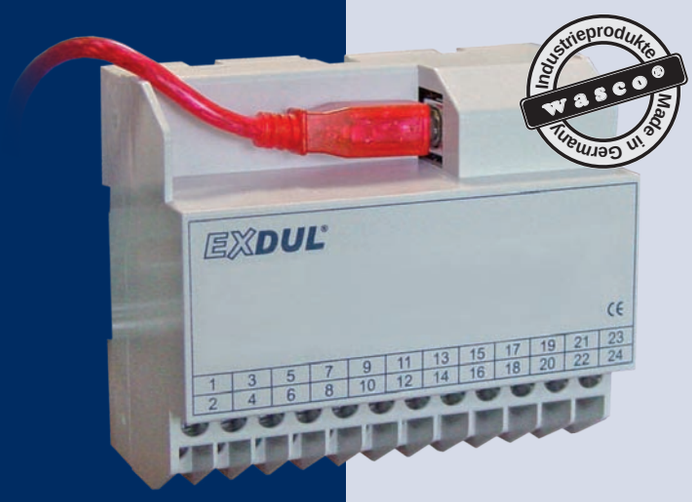
wasco®

EXDUL-393S

USB Module with 6 Temperature Measuring Units , 1 Optocoupler Input, 1 Optocoupler Output



6 temperature measuring units

- PT100 3-wire sensing
- PT1000 3-wire sensing

1 optocoupler input

1 optocoupler output

1 Counter 32 Bit

The module EXDUL-393S features 6 measuring units with PT100 and PT1000 sensors, each of which with its own current source and measuring inputs. The measuring of the individual sensors is made by software conmands. Both the temperature and the sensor resistance can be measured.
In addition, the module provides one digital input and one digital output galvanically isolated via high-quality optocouplers and additional protection diodes. The special high power output optocoupler copes with a switching current of up to 150 mA.
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 optocoupler input may be programmed and used as a 32-bit counter input if required.
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 rails.

SPECIFICATIONS

6 Temperature measuring units
PT100 3 wire sensing
PT1000 3 wire sensing
sensor type per unit selectable via jumpers
input protection: +/-45V

Optocoupler input
1 bipolar channel
Over voltage protection diodes
Input voltage range
high = 10..30 Volt
low = 0..3 Volt

Optocoupler output
1 channel
High capacity optocouplers
Reverse polarity protection
Output current: max. 150 mA
Switching voltage: max. 50 V

Counter
1 programmable counter 32 Bit
(allocated to the optocoupler input)
counting frequency: max. 5 kHz

Operation voltage
+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 pluggable)

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

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.

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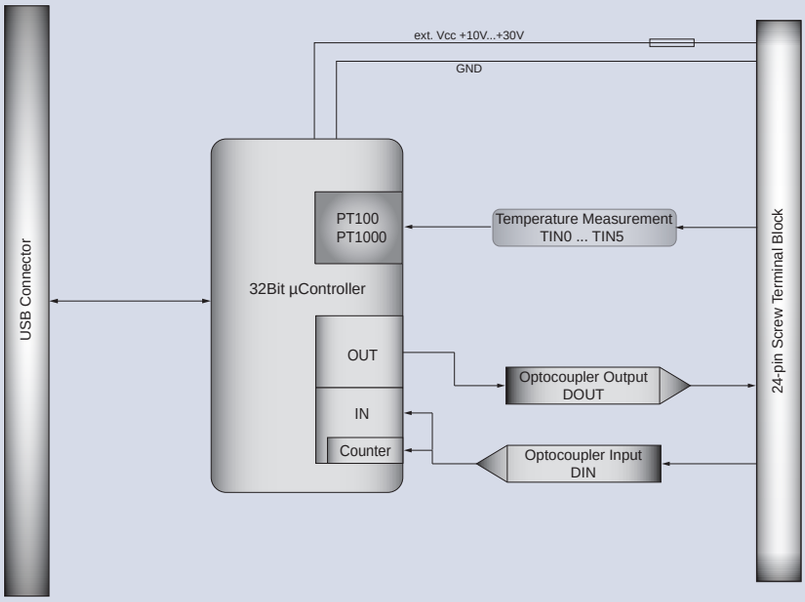
Block Diagram



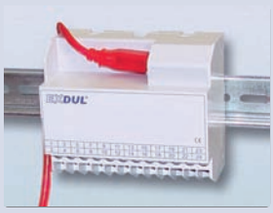
Pin Assignment

The Terminals Vcc_EXT und GND_EXT are designated for an application of an external supply voltage of 10 ... 30 V.

Screw Terminal
CN1

RTDIN0+	2	1	FORCE0+
FORCE1+	4	3	FORCE0-
FORCE1-	6	5	RTDIN1+
RTDIN2+	8	7	FORCE2+
FORCE3+	10	9	FORCE2-
FORCE3-	12	11	RTDIN3+
RTDIN4+	14	13	FORCE4+
FORCE5+	16	15	FORCE4-
FORCE5-	18	17	RTDIN5+
DOUT0-	20	19	DOUT0+
DIN0-	22	21	DIN0+
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-393S
USB connection cable (Typ A-B) 3m long
German Description (English on request)
Installation and sample programs

Order Information

EXDUL-393S **EDP-No. A-382310**
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