Sontheim

EC-DIO32 RM35

Small, compact, powerful

We live electronics!

EC-DIO32 RM35

Digital 24 V module with 32 freely configurable in- and outputs and an EtherCAT and CAN interface.

Key Features

- **Signal delay with less than 100 µs**
- **Safety features for high running safety**
- **Easy access to all interfaces**
- **Own intelligence for complex EtherCAT networks**
- **Galv. isolated in- and outputs**
- **Free configuration of in- and outputs**
- **Analog and digital diagnostic functions**
- **Compact aluminium housing with IP20 and integrated top hat rail mounting**

Flexibility

The key to lean fieldbus networks and efficient process automation lies in flexibility. The user has to be able to meet changing process requirements with existing products. The EC-DIO32 RM35 has been designed for these particular cases, where either the fieldbus system, the number or the kind of actors and sensors changes.

Freely configurable inputs and outputs

EC-DIO32 RM35 is a digital 24 V remote IO module, housing a 200 MHz NXP LPC with 32-bit and 32 freely configurable inputs and outputs. It is separated into four blocks of eight interfaces each that can be configured and addressed via two HEX-switches. Every block is galvanically isolated and has an own power supply. This enables the module to handle different voltages and allows the use in safety-relevant applications, e. g. guard doors.

Switches and LEDs for a maximum of usability

LEDs and switches for each block show the status of the module channels. The network can therefore be created and monitored very easily.

Technical Data

Hardware	
CPU	32-bit microcontroller
Connection technology	Two-wire-, three-wire connection
Operating system display	1× LED green for operating mode (Run) 1× LED rot for error (Err) 1× LED green mode CAN 1× LED green mode EtherCAT 4× LED Block configuration 32× LED green for set in- and outputs Fieldbus EtherCAT (LEDs on the RJ45 plug) 1× LED green transmit 1× LED orange EtherCAT status
Dimensions (l×w×h)	121 mm × 120 mm × 35 mm
Weight	approx. 400 g
Portection class	IP20, EMC-requirements according to CE
Storage temperature	–20 °C up to +80 °C
Operating temperature	–10 °C up to +60 °C
Humidity	90 % non-condensing
Power supply	24 V DC ±20 %
Current (all in- and outputs active, including LEDs)	500 mA

Digital inputs	
Number of inputs	Freely configurable in 8-blocks (max. 32)
Switching level "1"	+15.0 V up to +28.8 V DC (EN 61131-2, type 1)
Switching level "0"	0.0 V up to +5.0 V DC (EN 61131-2, type 1)
Input current/input	max. 5 mA
Input frequency (Fg)	5 kHz
Signal delay	< 100 µs

Digital outputs	
Number of outputs	Freely configurable in 8-blocks (max. 32)
Power supply	24 V DC ±20 %
Circuit type	Highside-Power switch
Output current/output	1 A (short circuit proof)
Freewheel diodes	Yes, controlled inductors require external freewheel diodes
Signal delay	< 100 µs
Switching level "1"	+15.0 V up to +28.8 V DC

Rugged interfaces

3-point connection technology facilitates the direct connection of all sensors and actors with the module. The EC-DIO32 RM35 contains Weidmüller clamps for easy and rugged conctact, making it robust and process proof in multiple applications.

EtherCAT and CAN interfaces

You can configure the module for a CANopen or EtherCAT network via a HEX switch. As interfaces for data exchange, it has two RJ45 ports and for CAN a D-Sub9 interface, allowing an easy connection with other modules.

Diagnostic features via revertive monitoring

The device offers various possibilities for revertively monitoring power levels and switching habits. These features facilitate the detection of defect outputs. By monitoring the levels of input signals the module can also verify input faults. All the data is made available while running the EC-DIO32 RM35.

Pin assignment

RJ 45 Ethernet

1	LAN/EtherCAT_TX+
2	LAN/EtherCAT_TX–
3	LAN/EtherCAT_RX+
4	–
5	–
6	LAN/EtherCAT_RX–
7	–
8	–


CAN D-Sub9

2	CAN L (low)
3	CAN GND
7	CAN H (high)


HEX-Switches module adress

Minimum 01 HEX	1
Maximum 7F HEX	127

HEX-Switch baud rate (in Kbit/s)

0	10
1	25
2	50
3	125
4	250
5	500
6	800
7	1000

Order information

V966213250	EC-DIO32 RM35

Mobile Automation

Industrial Automation

Diagnostics

Connectivity

We are looking forward to your enquiry!

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