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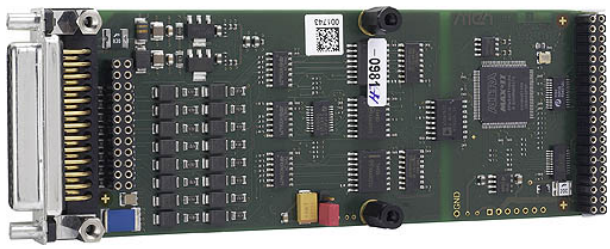
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Find the *MEN Micro / Mikro Elektronik M24* at our website: ***Click HERE***

Embedded Solutions

M24 - 8/16 Binary Inputs



- **8/16 Schmitt trigger inputs 0..32 V**
- **Debouncing circuit**
- **Individual interrupt generation**
- **Load on ground or supply voltage**
- **Screw terminal/LED version available**
- **Optical isolation**

The M24 has voltage-sensitive inputs. Either 16 channels are available using a 25-pin D-Sub connector, or 8 channels using a screw terminal with LED display. The nominal switching threshold is half the supply voltage. Suppressor diodes protect all inputs against overvoltage.
Interrupt generation can be programmed for each individual channel on each transition.
The M24 is a high-end M-Module™ for process input. It is designed for use in critical applications.
The M24 is based on the M-Module™ ANSI mezzanine standard. It can be used as an I/O extension in any type of bus system, i.e. CPCI, PXI™, VME or on any type of stand-alone SBC. Appropriate M-Module™ carrier cards in 3U, 6U and other formats are available from MEN or other manufacturers.

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Technical Data

Binary Inputs
- 16 binary inputs with 25-pin D-Sub connector
- 8 binary inputs with screw terminal and LED display
- Input load on ground or supply voltage
- Schmitt trigger characteristics with 2V hysteresis
- Input current each input at low level 5mA @ 24V supply
- Input voltage range 12..32V

Input Control
- BIOC (Binary Input/Output Controller)

Switching Voltage and Current
- U low = (VBB/2) - 1V
- U high = (VBB/2) + 1V
- I in = ±5mA (VBB = 24V)

Overload Protection
- Intelligent protection

Miscellaneous
- Debouncing circuit
- Interrupt generation for each channel on each signal edge

Peripheral Connections
- Via front panel on a shielded 25-pin D-Sub connector (16 inputs) or
- Via screw terminal and LED display (8 inputs)
- Via carrier board (rear I/O)

M-Module™ Characteristics
- A08, D08, INTA, IDENT

Electrical Specifications
- Isolation voltage:
  - 500V DC between isolated side and digital side
  - Voltage between the connector shield and isolated ground is limited to 180V using a varistor; AC coupling between connector shield and isolated ground through 47nF capacitor
- Supply voltage/power consumption:
  - +5V (4.85V..5.25V), 20mA typ.
  - +24V (10V..32V), 85mA typ.
- MTBF: tbd. according to IEC/TR 62380 (RDF 2000)

Mechanical Specifications
- Dimensions: conforming to M-Module™ Standard
- Weight:
  - 68g (with D-Sub connector)
  - 58g (with screw terminal)

Environmental Specifications
- Temperature range (operation):
  - 0..+60°C
  - Industrial temperature range on request
  - Airflow: min. 10m³/h
- Temperature range (storage): -40..+85°C
- Relative humidity range (operation): max. 95% without condensation
- Relative humidity range (storage): max. 95% without condensation
- Altitude: -300m to + 3,000m
- Shock: 15g/11ms
- Bump: 10g/16ms
- Vibration (sinusoidal): 2g/10..150Hz
- Conformal coating on request

Safety
- PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers

EMC
- Tested according to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst) with regard to CE conformity

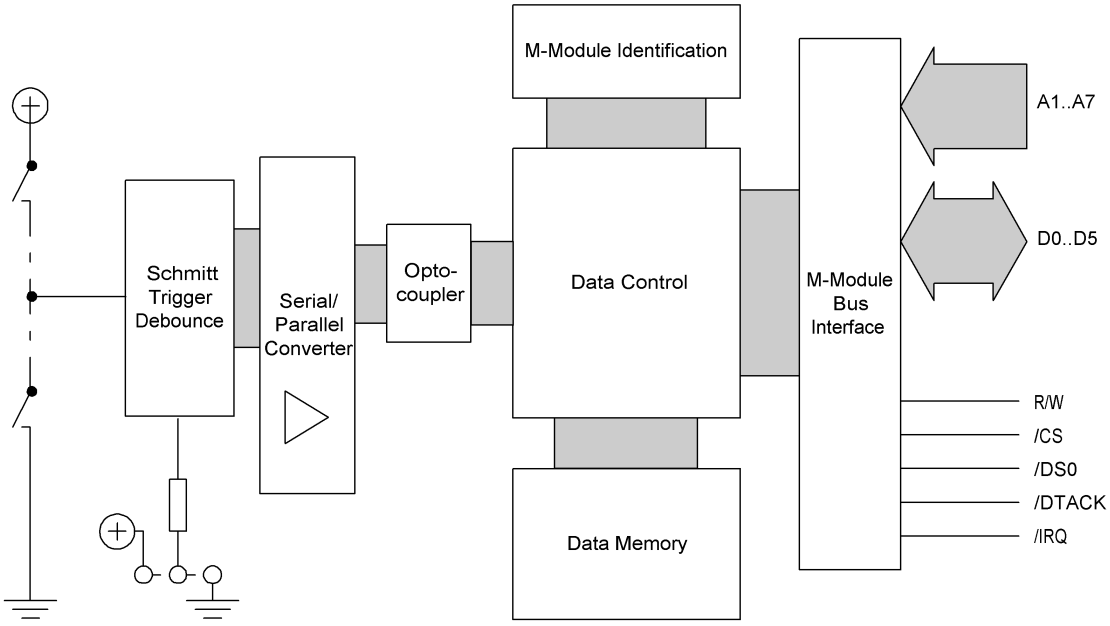
Software Support
- MEN Driver Interface System (MDIS™ for Windows®, Linux, VxWorks®, QNX®, RTX, OS-9®)
- For more information on supported operating system versions and drivers see Software.

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Diagram



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Configuration & Options

Standard Configurations

Article No.	Channels	I/O Connector	Operation Temperature
04M024-01	16	D-Sub	0..+60°C
04M024-02	8	Screw Terminal	0..+60°C

Options

Channels
- 8 or 16

I/O Connector
- Screw terminal or D-Sub

Operation Temperature
- 0..+60°C
- -40..+85°C

Please note that some of these options may only be available for large volumes. Please ask our sales staff for more information.

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Ordering Information

Standard Hardware

04M024-01	16 binary sink or source inputs, with D-Sub connector, 0..+60°C
04M024-02	8 binary sink or source inputs, with screw terminal, 0..+60°C

Miscellaneous

05M000-00	M-Module™ cable, 2m, with 25-pin D-Sub plug/housing to pig tail
05M000-17	25 mounting screw sets to fix M-Modules™ on carrier boards

Software: OS independent

13M022-06	MDIS4™/2004 low-level driver sources for M22/M24

Software: Windows

13M022-70	MDIS4™/2004 Windows® NT4/W2K/XP and XP Embedded driver for M22 and M24

Documentation

20M000-00	M-Module™ Draft Specification, Rev. 3.0
20M024-00	M24 User Manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the M24 online data sheet under » www.men.de.

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Contact Information

Germany
MEN Mikro Elektronik GmbH
Neuwieder Straße 5-7
90411 Nuremberg
Phone +49-911-99 33 5-0
Fax +49-911-99 33 5-901
E-mail info@men.de
www.men.de

France
MEN Mikro Elektronik SA
18, rue René Cassin
ZA de la Châtelaine
74240 Gaillard
Phone +33 (0) 450-955-312
Fax +33 (0) 450-955-211
E-mail info@men-france.fr
www.men-france.fr

USA
MEN Micro, Inc.
24 North Main Street
Ambler, PA 19002
Phone (215) 542-9575
Fax (215) 542-9577
E-mail sales@menmicro.com
www.menmicro.com

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