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Find the *MEN Micro / Mikro Elektronik M43* at our website: ***Click HERE***

Embedded Solutions

M43 - 8 Relay Outputs



- **8 relay outputs**
- **1A switching power per relay**
- **One throw-over contact per relay**
- **Output voltage range max. 100V**
- **No separate supply voltage**

The M43 is a relay output M-Module™ for free potential switching of eight signals. It is designed for industrial process I/O applications.
The relays implemented guarantee highest reliability and long life.
The M43 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

Relay Outputs
- 8 outputs as throw-over contacts
- NO (normally open), NC (normally closed) and common contacts

Ratings
- Maximum switching voltage: 48V
- Maximum switching current: 3A
- Maximum operation current: 1A
- Maximum switching power: 60W

Switching Time
- 2ms typ. for NO and NC

Miscellaneous
- Relay status can be read out - "read-modify-write" accesses possible
- Low heat development by use of CMOS components

Peripheral Connections
- Via front panel on a shielded 25-pin D-Sub receptacle connector
- Via carrier board (rear I/O)

M-Module™ Characteristics
- A08, D08, IDENT

Electrical Specifications
- Supply voltage/power consumption: +5V (+10%/-0%), 700mA typ. (all relays active)
- MTBF: 1,000,000h @ 50°C (derived from MIL-HDBK-217F)

Mechanical Specifications
- Dimensions: conforming to M-Module™ Standard
- Weight: 98g

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% non-condensing
- Relative humidity range (storage): max. 95% non-condensing
- 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

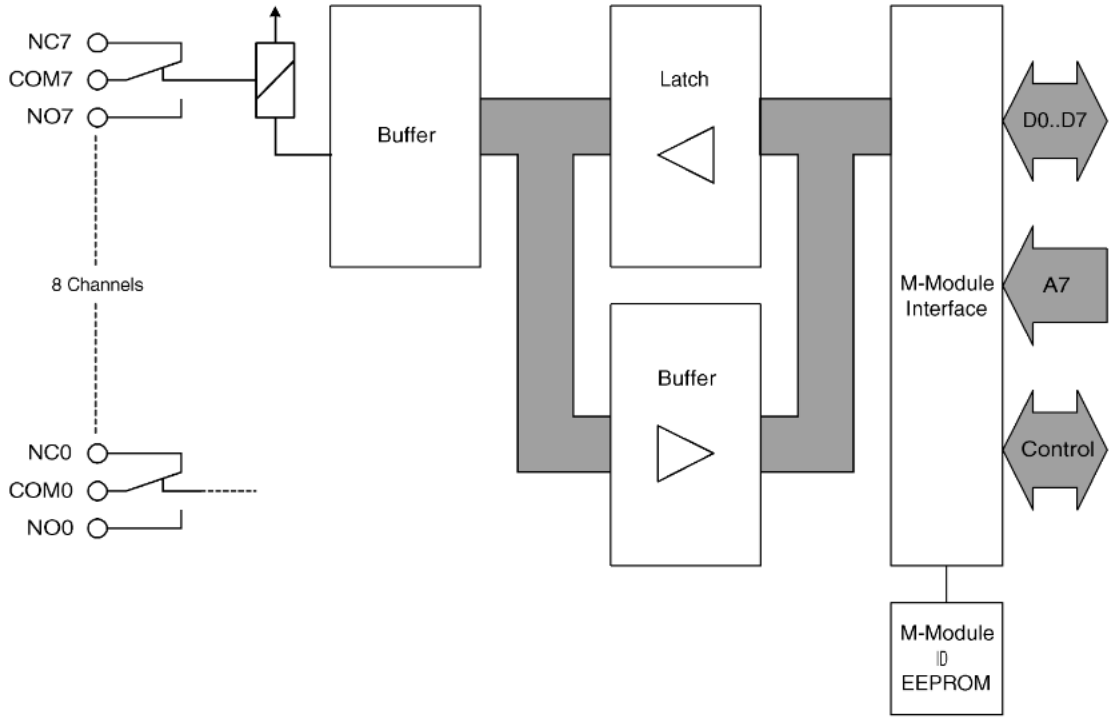
EMC
- Tested according to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst) with regard to CE conformity

Software Support
- MEN Driver Interface System (MDIS™ for Windows®, Linux, VxWorks®, QNX®, RTX, OS-9®)

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Diagram



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Ordering Information

Standard Hardware

04M043-00	8 relay outputs, 0..+60°C
04M043-03	8 relay outputs, 1KV isolation, -40..+85°C screened

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

13M043-06	MDIS4™/2004 low-level driver sources for M43

Software: Windows

13M043-70	MDIS4™/2004 Windows® NT4/W2K/XP and XP Embedded driver for M43

Documentation

20M000-00	M-Module™ draft specification, Rev. 3.0
20M043-00	M43 user manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the M43 online data sheet under » www.men.de.

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