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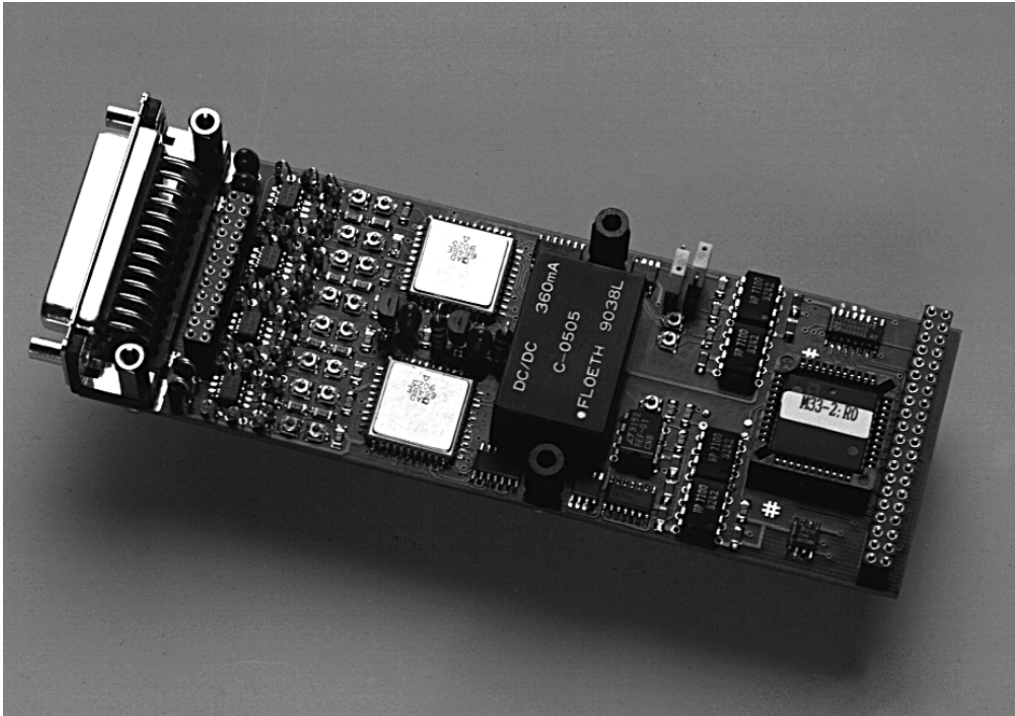
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# The M33 Module

The M33 is a fast 8-channel analog output M-Module with a standard resolution of 12 bits. The isolated supply voltages ( $\pm 15V$ ) can be generated on the board by an optional low-noise DC/DC converter. The output voltage range can be set individually for each channel to 0..10V, -5..+5V or -10..+10V. All outputs can be updated simultaneously. The current outputs are separately available

and can be used as 0..20mA or 4..20mA outputs, selected by a jumper for all 8 outputs. The output load is driven to ground.

An external supply is needed only with 8 current outputs. The M33 is based on the M4 but has 8 channels, ESD protection, and a higher isolation voltage.



## Features

### D/A Conversion:

- 8 channels
- 12 bits
- conversion time 10 $\mu$ s
- output linearity:  $\pm 1$  LSB
- simultaneous update of all channels possible
- optically isolated (500V isolation)
- ESD/EMC according to IEC1000

### Voltage Output:

- output current: 5mA max.
- accuracy:  $\pm 0.2\%$
- voltage range: 0..10V; -5V..+5V; -10V..+10V

### Current Output:

- accuracy:  $\pm 0.5\%$
- current range : 0..20mA; 4..20mA

### Peripheral Connections:

- via front panel on a shielded 25-pin D-Sub connector (female)
- via base board connector

### M-Module Characteristics:

- A08, D16, IDENT

### Software Support:

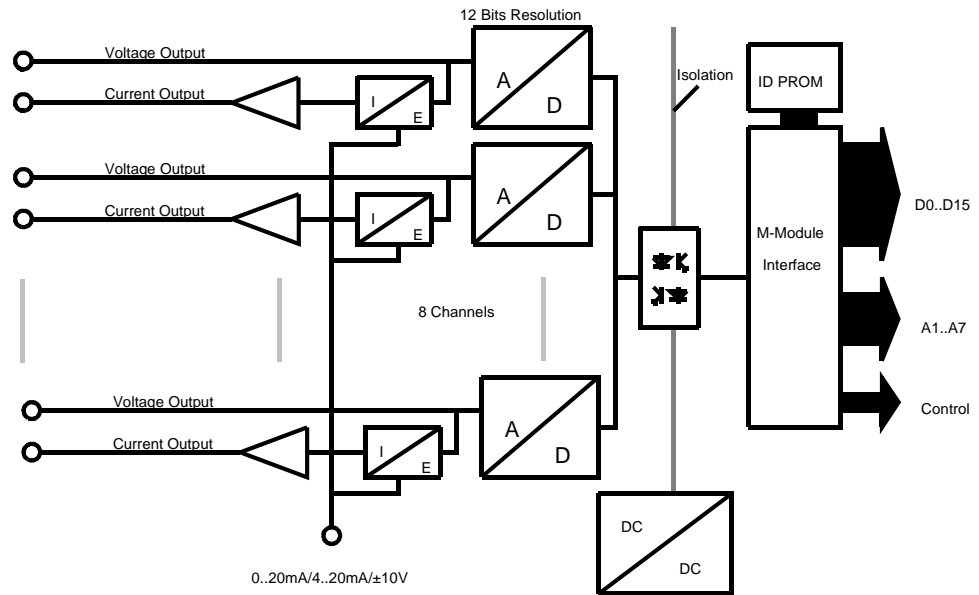
- MDIS driver concept



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## Block Diagram



## Ordering Information

04M033-00	M33 hardware with DC/DC converter
04M033-01	M33 without DC/DC converter
20M033-00	M33 hardware documentation
13M033-00	OS-9 driver software (MDIS)
13M033-20	LynxOS VME/68k driver software (MDIS)
13M033-30	HP-RT driver software (MDIS)
13M033-40	MS-DOS driver software (MDIS)
13M033-60	VxWorks VME/68k driver software (MDIS)
21M033-00	software documentation (for MDIS)



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