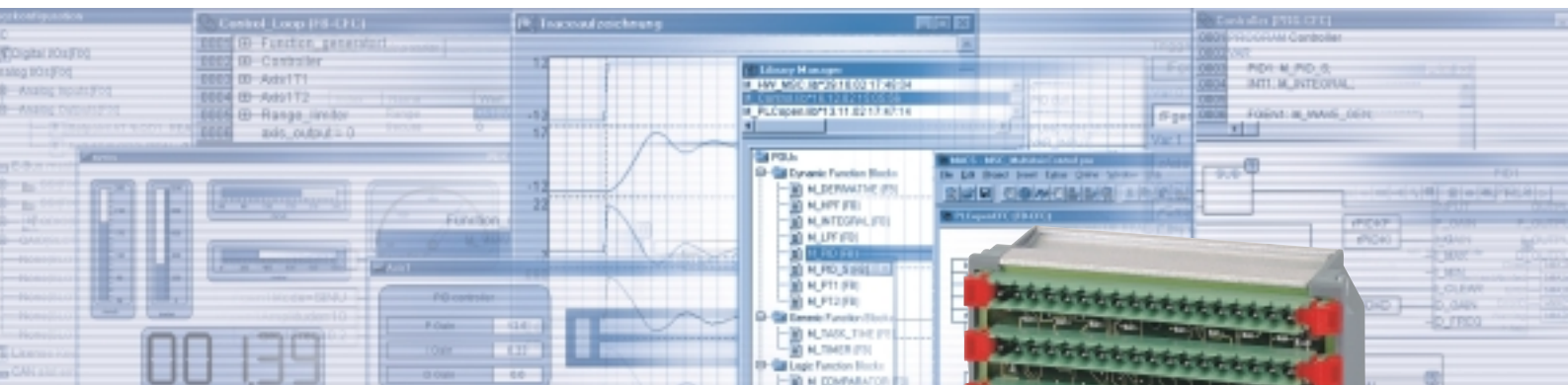
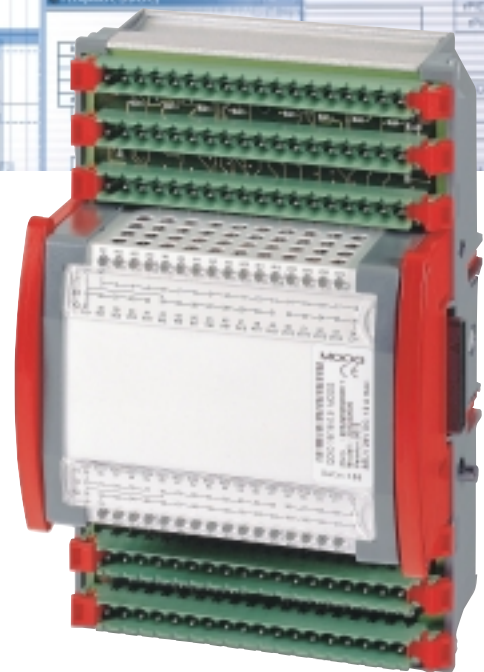


M3000 Control System



QDIO 16/16-0,5
QDIO 16/16-0,5N
Digital I/O Extension Module



GENERAL

The QDIO digital module is used for extension of the local inputs and outputs (I/O) of the Moog Servo Controller (MSC) control module.

The module is mounted on a DIN top-hat rail and directly connected to the MSC, or a remote digital I/O module (RDIO) via the internal extension bus (E-bus).

QDIO

Digital I/O extension module
 QDIO 16/16-0,5: I/O positive switching
 QDIO 16/16-0,5N: I/O zero switching

- 16 digital inputs 24 V
- 16 digital I/O, 24 V, individually configurable as an input or an output
- Connection via E-bus

CONFIGURATION

The configuration of the digital I/O is carried out per software via the central configuration in the Moog Axis Control Software (MACS) development environment.

ACTUATION

The I/O of the digital extension module are actuated directly from the MSC or RDIO via the extension bus (E-bus).

STATUS LEDs

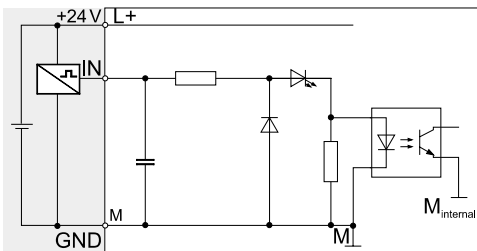
LEDs on the front provide information about the status of the I/O. The arrangement of the LEDs corresponds to the I/O connections.

E-BUS

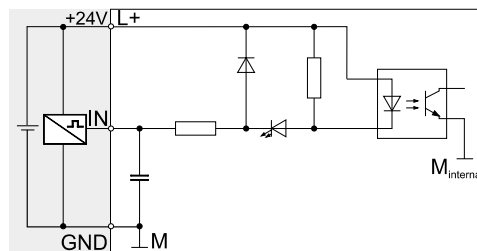
One MSC can be extended with a maximum of 7 modules (e.g. QDIO or QAIO). Further digital I/O can be actuated via RDIO modules, which are connected with the MSC via CANopen.

BASIC CIRCUIT DIAGRAM, DIGITAL INPUT

Plus switching

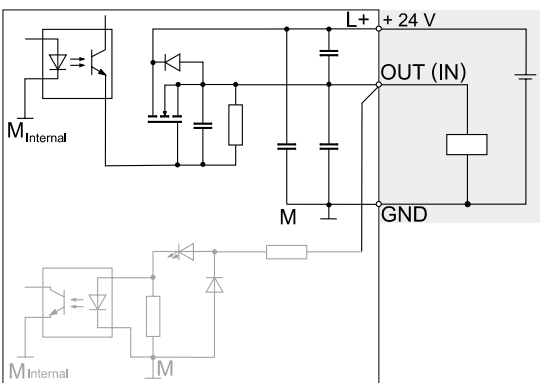


Zero switching

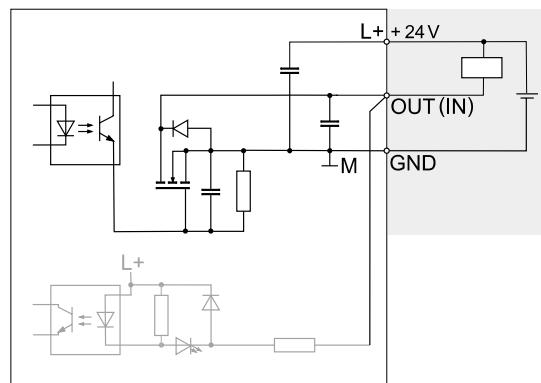


BASIC CIRCUIT DIAGRAM, DIGITAL OUTPUT

Plus switching



Zero switching



Module Data	Digital I/O Extension Module
Order number	QDIO 16/16-0.5: D137-001-005 QDIO 16/16-0.5N: D137-001-004
Types of inputs/outputs	QDIO 16/16-0.5: plus switching QDIO 16/16-0.5N: zero switching
Connection to M3000 modules	Via E-bus (max. 10 MHz)
Connection technique	Plug-in terminal strips for screwing or clamping
Connection of the I/O	3-conductor front wiring
Assembly	NS 35/7.5 bearing rail to EN 50022 (DIN top-hat rail)
Status LEDs	1 status LED per I/O
Dimensions WxHxD (mm)	124 x 170 x 85.5 (attachment dimension: W = 113/118.5)
Temperature range	+5°C (+41°F) to +50°C (+122°F) (operation) and -25°C (-13°F) to +70°C (+158°F) (storage)
Relative air humidity	10 % to 95% (non-condensing)

Standards	
Interference emission / immunity	EN 61000-6-4 / EN 61000-6-2, industrial portion
Protection class / protection system	III / IP20
Insulation strength	IEC 61131-2; test voltage 500 V DC

Energy supply	
Voltage supply of module electronics	+24 V DC (18-32 V DC) SELV pursuant to IEC 61131-2
Current consumption of module electronics	Max. 0.15 A
Voltage supply of the digital I/O	+24 V DC (IEC 61131-2), divided into 6 groups
Current consumption of the digital I/O	At U= +24 V DC in idling, max. 300 mA; all digital I/O active, approx. 8 A
Potential separation	Yes, between E-bus and digital I/O

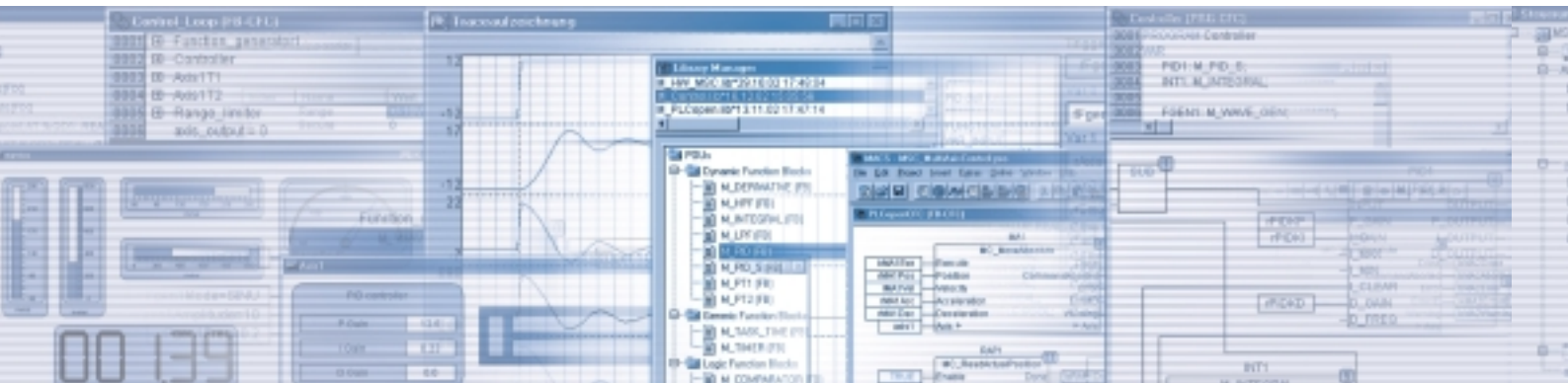
Digital inputs/outputs	
Number of inputs	16
Number of inputs/outputs	16, individually configurable as inputs or outputs
Output current	Max. 0.5 A
Short-circuit/reverse polarity protection	Yes / yes, all digital outputs

Accessories		
Plug-in terminal strips (6 are required per module)		
Designation	Description	Order number
Screw terminal, 18-pole	Up to max. conductor cross-section of 2,5 mm ² (14 AWG)	VK055-018
Spring-power clamp, 18-pole	Up to max. conductor cross-section of 2,5 mm ² (14 AWG)	B95907-018

Detailed information and integration tips can be obtained from the users' manuals referenced.



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South Africa
Spain
Sweden
USA

Our quality standard is according to DIN EN ISO 9001.



The modules described in this catalog have passed the EMV examination according to the EU directive.

NOTES

This catalog is intended for users with technical knowledge. In order to ensure that the peripheral conditions necessary for the function and the safety of the system have been fulfilled, the user must examine the suitability of the modules described herein. Please contact Moog for further clarification.

Technical changes are reserved.

MOOG

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