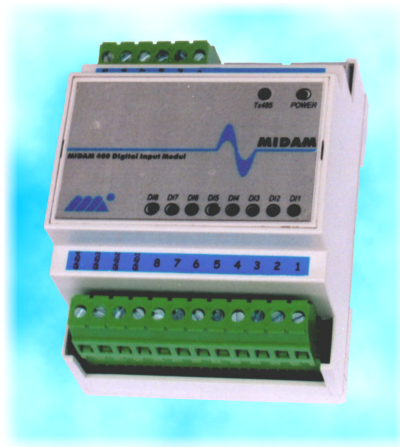




MIDAM

MIDAM 400/410 Digital Input Modul



MIDAM 400 and MIDAM 410 is an intelligent module with eight digital inputs. The inputs condition is controllable via the RS485 communication bus. The module has to be installed on a DIN strip.

The module communicates and is controlled solely via the RS485 data bus. Its communication protocol is identical with the ADAM 4000 module series produced by ADVANTECH company. The MIDAM 400 and MIDAM 410 sensor operates in the same way as the ADAM 4052 module. This means that a standard actuator used with the ADAM modules can be used for control in various programmes.

The module wiring to the RS485 bus is provided by two RJ45 connectors. The connectors are in parallel connection. Thus it is possible to lead the bus from the module further to other modules in the network. Communication inputs are protected against overvoltage. In case that the converter has been installed as a terminal device on the bus, a terminating

resistor may be used. To attain this, remove the case cover and connect the terminal resistor to the line by short-circuiting the contacts on the printed circuit board.

Some communication cables include more wire pairs in a cable. Therefore the convertor has been designed to allow that the module power supply can be brought via the free conductors in the cable. This measure makes the module installation easier and reduces the cabling requirements.

All adjustments are saved in an EEPROM memory. The module is fitted with the WATCHDOG circuit which is guarding proper operation of the processor. There are eight LEDs on the top panel of the module indicating status of each output and two LEDs indicating communication with the module and power supply connection. The module is galvanically separated from power supply.

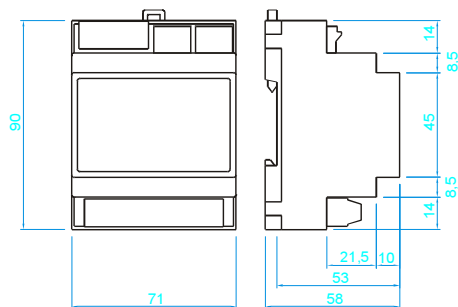


The module outputs are passive (without power supply), so that the reading of the potential-free contacts condition requires external power supply or power supply voltage from the module (see the examples of wiring). If an alternative voltage supply is used, the terminal polarity is arbitrary.

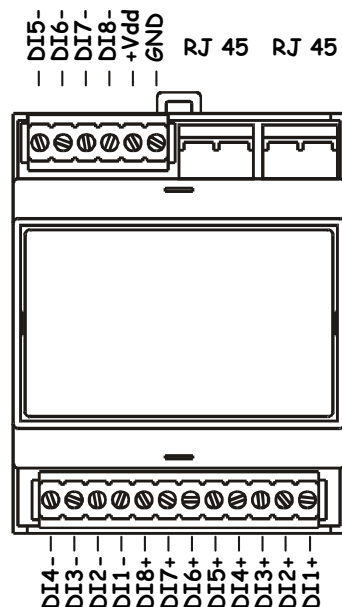
Technical data

Supply voltage	10 V + 35 V DC non-regulated 14 V + 24 V AC
Power input	1 W
Permissible module inner temperature	0 + 70°C
Communication properties	data transmission via RS 485 data bus baud rates: 1200, 2400, 4800, 9600, 19200 Bd max. segment length: 1200 m, asynchronous transmission up to 256 modules per one serial port communication protocol identical with the ADAM 4000 modules
The number of outputs	8, separated from each other
Input voltage for the log „0“	MIDAM 400 - max. 1 V \approx , 1V \approx MIDAM 410 - max. 20V \approx
Input voltage for the log „1“	MIDAM 400 - 3,5 až 50 V \approx , 3,5 až 30V \approx (I_{\max} = 15mA) MIDAM 410 - 100V \approx až 250V \approx (I_{\max} = 10mA)

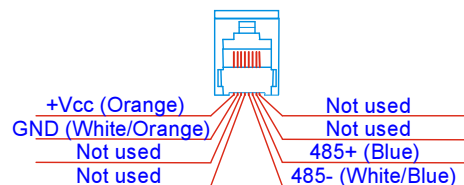
Module external dimensions



Terminals wiring

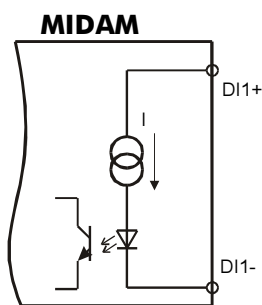


Recommended wiring of the RJ 45 connector

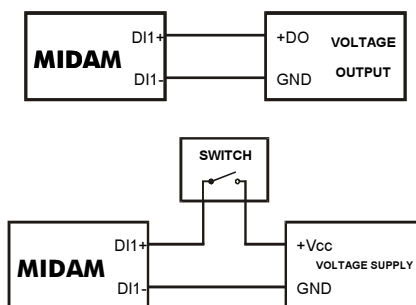


Designation	Description
DI1+ to DI8+	+ digital input terminals
DI1- to DI8-	- digital input terminals
+Vdd	+ module power supply terminal
GND	- module power supply terminal
RJ 45	Connectors for wiring a data bus and possibly for power supply to the module

Input internal wiring



Examples of the wiring



As an optional feature available on customer's demand, another communication protocol may be implemented into the module or the module can be programmed as a control module.

Reprezetative

MIKRO *klima* S.r.o.
CONTROL SYSTEMS

Mikroklima s.r.o., Veverkova 1343
500 02 Hradec Králové, Czech Republic
Tel.: 049/5813355, fax: 049/5813357
e-mail: midam@mikroklima.cz

