

The module MAH1030 (consisting of one MAH1010 and MAH1020) serves as local override / indication device (LO/ID) providing four analog outputs 0...10 Volts.

It is used where the analog outputs of DDC/PLC systems may need to be overridden by manual intervention. Typical applications in the sector of HVAC are, e.g., valves, dampers and frequency converters. The analog output module MAH1010 provides four analog outputs 0...10 V. The maximum load of each output is 10 mA. In addition, it provides four analog inputs which can be configured for various types of signals, among them 0...10 V, 0...20 mA, and different types of resistance sensors.

In order to offer the possibility of manual override of the outputs, a front module is connected to the DIN rail mounted device MAH1010 via a pluggable cable. For each channel, the front module provides a switch that allows the automatic signal to be overridden ('Automatic' - '0 Volts' - 'Pot'), a potentiometer for continuous manual adjustment of the output voltage and an LED in light / dark operating mode (green), optionally configurable with color change from green over orange to red, for visual control of the output voltage.

Setting the required value of an analog output usually will be done via MODBUS commands. Alternatively, however, in a configuration register the option can be defined that the analog outputs will be controlled by signals which are connected via terminals to the corresponding analog inputs.

The status of the analog inputs and the current position of the switches ('Automatic' or 'Off / potentiometer') will be transferred via MODBUS to the MODBUS master device (DDC/PLC) where they are available for further processing. Regarding the system configuration (addressing, maximum number of modules connected to a MODBUS Master interface, installation, connection to the bus etc.), please follow the instructions in the chapter Configuration.



Übersicht Klemmenbelegung:

MAH1010	Ansteuerung aller AI's mit 0...10VDC					
	+24V DC GND	AI Analog A-GND	AI Analog A-GND	AO Analog A-GND	AO Analog A-GND	Transistor-Ausg. 24V GND für 24V-Ausg.
Kanal 1		11 12		51 52		41 45
Kanal 2		13 14		53 54		42 45
Kanal 3		15 16		55 56		43 46
Kanal 4		17 18		57 58		44 46
Spannungsversorgung	31 32					



Shunt-Widerstände beim MAH1010

Soll an einem Analogeingang des MAH1010 ein aktiver Fühler 0...20mA angeschlossen werden, so ist mit Hilfe der Dipschalter für den jeweiligen Eingang der dafür vorgesehene Shuntwiderstand einzuschalten.

Power supply: +24 V DC, connection via terminals

Current consumption: appr. 220 mA

Capacity of the outputs: 10 mA each (short circuit proof)

Resolution AO: 8 Bit
Linearity error: < +/- 2%
Resolution AI 10 Bit