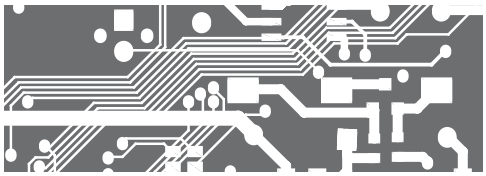
OMC 8020-2UNIC.2AO

2x UNIV. ANALOG. INPUTS + 2x ANALOG. OUTPUTS



CONNECTING THE MODULE

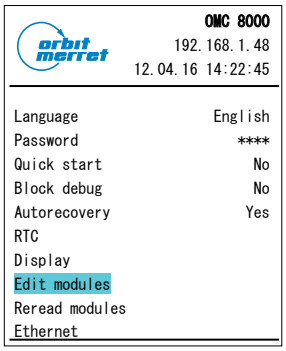
Prior to wiring the module to the power supply, always make sure the power supply is switched off

1. Connect module OMC 8020-2UNIC.2AO to the main module using an included connector cable (female connectors are located at the top of the module housing and protected by a circular rubber plug)
2. Switch on the power supply of the whole system
3. Assign an address to the newly connected module (see Edit Modules setting below)
4. Switch off the power supply of the whole system

ENTERING THE MENU OF OMC 8000

Instrument's menu can be entered in two different ways:

1. By pressing the OK key while the screen which lists the connected modules is displayed and hold it for the entire duration of its projection. Alternatively the OK key can be kept pressed already from the moment of Power-on.
2. By pressing the UP and DOWN keys simultaneously for 3 seconds (Arrow Up and Arrow Down) provided the PLC program is not running (LED RUN is not on). Only in this way the menu item Start can be accessed.



EDIT MODULES SETTING

This menu item allows assigning addresses to connected modules. In case there is no module connected, the screen is empty.

Changes realized in this setting are executed immediately. Pressing the ESC key does notmean the setting has not been already saved.

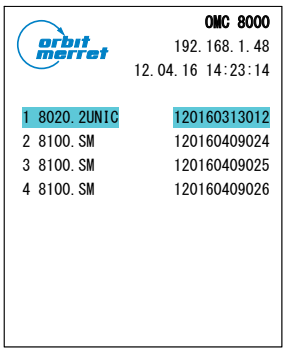
Keys UP/DOWN are used to select the module which is to be assigned. LED RUN flashes on the momentarily selected module.

Pressing the OK key activates the module to be assigned. The module's details are shown in inverse colors on the display.

UP/DOWN keys rank the module into the desired position in the list.

The OK button Unhighlights the module.

ESC key terminates the process of assigning addresses.



RE-READ MODULES SETTING

Resets the table of modules and reads it again.
The rest is as described above.

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OMC 8020-2UNIC.2AO
TECHNICAL DATA

ANALOGUE INPUTS

Number		2
Type		analogue, universal
Isoloted inputs		yes
Range	DC	±90/180 mA, ±30/±60/±1 000 mV, ±20/40/80 V
	PM	±20 mA/4...20 mA, ±2/±5/±10 V
	OHM	0...0,1/0,3/3/30 kΩ
	RTD	Pt 50/100/1 000
	Ni	Ni 1 000/10 000
	T/C	J/K/T/E/B/S/R/N/L
	DU	Lin. potentiometer (min. 500 Ω)
Resolution		24 bits
Overload capacity		10x
Cold Junction Comp.		yes
Accuracy		0,15 % of range
Rate		0.5/1.2/2.5/5/10/20/40/80/160 measurements/s
LED signalisation		yes

ANALOGOUE OUTPUT

Number	2
Range	0...2/5/10/±10 V 0...5 mA, 0/4...20 mA
Accuracy	0,1 % of range
Rate	1 ms
LED signalisation	activation of AO - green
LED signalisation*	disconnection of current loop AO - green, flashing

* if output current is bigger than 0.1 mA

TECHNICAL SPECIFICATION

TC	50 ppm/°C
Task	1 ms
Communication	CANBUS with speed of 1 Mbit/at 40 meters
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

MECHANICAL PROPERTIES

Material	PA 66, incombustible UL 94 V-0, blue
Dimensions	36 x 91 x 60 mm
Mechanical fixation	on DIN rail 35 mm wide

POWER SUPPLY

Range	12...30 VDC/24 VAC, ±10 %, 5 VA, PF≥ 0,4, 100...250 VDC/VAC, ±10 %, 5 VA, PF≥ 0,4, I_{STP}< 40 A/1 ms, isolated
Current via bus	max. 500 mA

OPEARTING CONDITIONS

Connection	screw terminals, cross section < 2,5 mm²
Operating temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP20
Execution	Safety class I
El. safety	EN 61010-1, A2
Dielectric strength	4 kVAC for 1 min. between power and input/output 2,5 kVAC for 1 min. between bus and input/output
Isolation resistance	for pollution degree II, measuring cat III 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial environment)
Seismic capacity	IEC 980: 1993, art.6

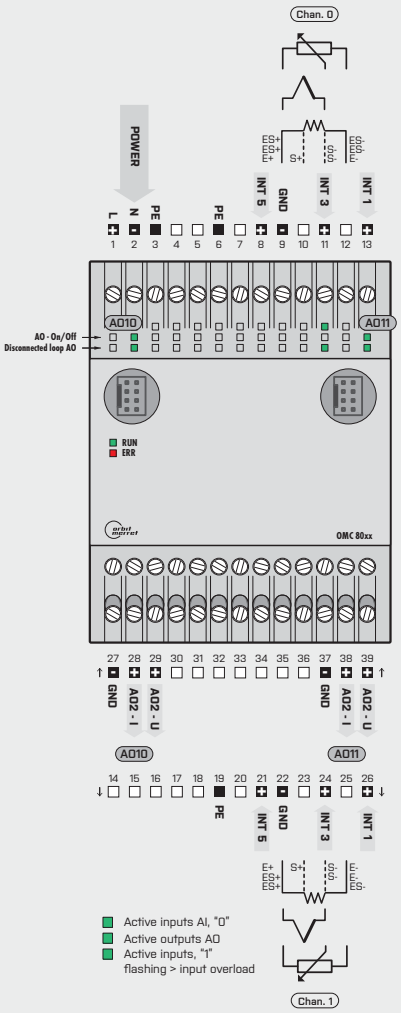
* PI - Primary isolation, DI - Double isolation

Power supply leads should not be in the vicinity of the low level input signal leads. Contactors, electrical motors and other power devices are not allowed near the input signal leads.
Input signal leads (measured value) should be at a safe distance from all power lines and appliances. Even though this device has been successfully tested in accordance with international standards for use in industrial areas, we still recommend to adhere to the afore mentioned simple rules.

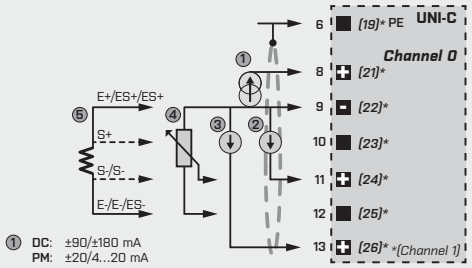
If the manufacturer is to assume the warranty conditions provided for the device's proper functionality it is essential that the shielding of the input signal wires is connected to the metal frame of the electrical switchboard!

OMC 8020-2UNIC.2AO
CONNECTION

OMC 8020-2UNIC.2AO



Connection of analogue inputs



① **DC:** ±90/±180 mA
PM: ±20/4...20 mA

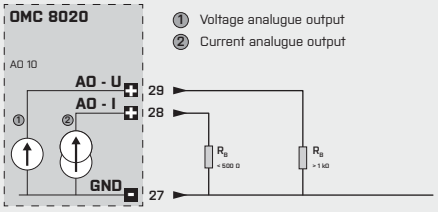
② **DC:** ±30/±60/±1000 mV
T/C: J/K/T/E/B/S/R/N/L (CJC can be activated only for Channel 1)

③ **DC:** ±20/±40/±80 V
PM: ±2/±5/±10 V

④ **DU:** Linear potentiometer (min. 500 Ω)

⑤ **OHM:** 0...0,1/0,3/1,5/3/30 kΩ
RTD: Pt 50/100/1 000
Ni: Ni 1 000/10 000

Connection of analogue outputs



STATUS Register

0x0040	Init	initialising
0x00C0	Init	initialising
0x0002	Done0	measurement in input 0 is complete
0x0004	Done1	measurement in input 1 is complete
0x0008	Err.In0	TC is disconnected in input 0
0x0010	Err.In1	TC is disconnected in input 1
0x0100	Err.Und0	underflow in input 0
0x0200	Err.Ovr0	overflow in input 0
0x0400	Err.TUn0	RTD/TC table underflow in input 0
0x0800	Err.TOv0	RTD/TC table overflow in input 0
0x1000	Err.Und1	underflow in input 1
0x2000	Err.Ovr1	overflow in input 1
0x4000	Err.TUn1	RTD/TC table underflow in input 1
0x8000	Err.TOv1	RTD/TC table overflow in input 1

Return values

Main value	Channels 0 and 1
Auxiliary value	Channels 2 and 3
Channel 2	additional resistance 0
Channel 3	additional resistance 1/temperature of cold junction

Value ranges

Int	0 - 4095	DC, PM, OHM, DU
	10x TEMP	RTD, Ni, T/C
Real	0 - 1	DC, PM, OHM, DU
	TEMP	RTD, Ni, T/C