

# Universal display unit Type M4005

- ✓ 3.5" IPS touchscreen
- ✓ 2 x current output 0/4-20 mA
- ✓ 5 x changeover contacts
- ✓ Voltage or current input
- ✓ 20-253VAC/DC, wide range power supply
- ✓ Modbus RTU via RS485 interface
- ✓ Data recording USB
- ✓ Easily configurable
- ✓ Galvanically isolated
- ✓ Front IP64 protected



## Typical application area

- Routine monitoring and control
- Display of physical quantities, level monitoring, redundant surveillance of PLC's
- Chemical process monitoring

## Technical description

The very compact universal display unit type M4005 was developed for the display and monitoring of physical quantities. The 3.5 inch IPS display with increased brightness allows reading of the measured value even in sunshine. The capacitive touch screen allows intuitive and fast operation.

The indicator consists of 5 potential-free limit value contacts which are electronically adjustable over the entire range. The limit value contacts can be used to control alarm devices, dosing valves and dosing pumps, among other things. The current measured value and the device status are continuously displayed.

The device is supplied with a galvanically isolated wide range power supply from 20 to 253VAC/DC. Sensors with a voltage output or current output can be connected directly to the display unit and programmed to the desired display by means of scaling. The input and display range as well as the decimal point can be freely set.

The device settings can be protected using an access code. An USB stick can be used to automatically record the measured values.

The device also has two freely programmable, galvanically isolated signal outputs.

## Technical data

Input signal: -input load/impedance	0...20mA, 0...1/10V, other values in this range are freely scalable Current input = 51Ω; voltage signal = 1MΩ Other inputs on request
Accuracy typical: -reproducibility: -temperature coefficient: -Long-term stability:	0.1% at 23°C ambient temperature 0.1% Zero drift: 30ppM/°C , gain drift: 25 ppM/°C ±0.1% after 3 months
Supply for loop powered sensors:	20VDC, max. 25mA
Display: -Resolution: -Display range:	Sunlight readable 3.5" IPS graphic display, 320x240 pixels 1 Digit -9999...9999 digit
Working temperature range:	-5°C to +45°C
Max. Humidity:	95%, non-condensing
Current output:  Burden: Output impedance:	2 outputs, 0 to 20mA, galvanically isolated, freely adjustable with in the entire range, common reference, in case of alarm 3.6mA/22mA/off adjustable In hold mode: hold/min/max/off adjustable 500Ω Type. > 1MΩ
Relay contacts: Output: Mode: Limits: Hysteresis: Delay: Minimum switch-on time: Label on display: Hold mode:	5 contacts, alarm contact included Potential-free changeover contacts, max. 5A, continuous 2A at 230V inductive Automatic or manual Freely adjustable 5-200 parts adjustable 0-3600s On and/or off delay 0-10.00s 4 characters active/inactive/off adjustable
Digital interface:	RS-485, Modbus RTU protocol (standard: 38'400, 8N1)
USB:	Logger, recording period (1-7200s)
Other features:	-device label of 16 characters on main screen -Hold function of the current outputs/relays controlled by an external normally open contact -settings can be copied from device to device via USB stick -Firmware update via USB stick -The device settings can be protected using a 4-digit access code
Supply:	Universal power supply: 20 to 253VAC or DC
Power consumption:	4.0W to 7.0W at 230VAC
CE conformity:	Fullfilled
Connection type:	Connector terminals: 1x 3 pin, 1x 6 pin, 2x 8 pin, 1x 9 pin, 1x 8pin 1x USB-A connector
Mounting:	2 quick release fasteners
Weight:	330g
Protection class:	Front IP64 protected
Warranty:	2 years

Options:

-IoT gateway module for remote monitoring and alarming via LTE network (more information on request).

### Part numbers / Order example

Item number	Description
M4005	Universal display unit

M4005

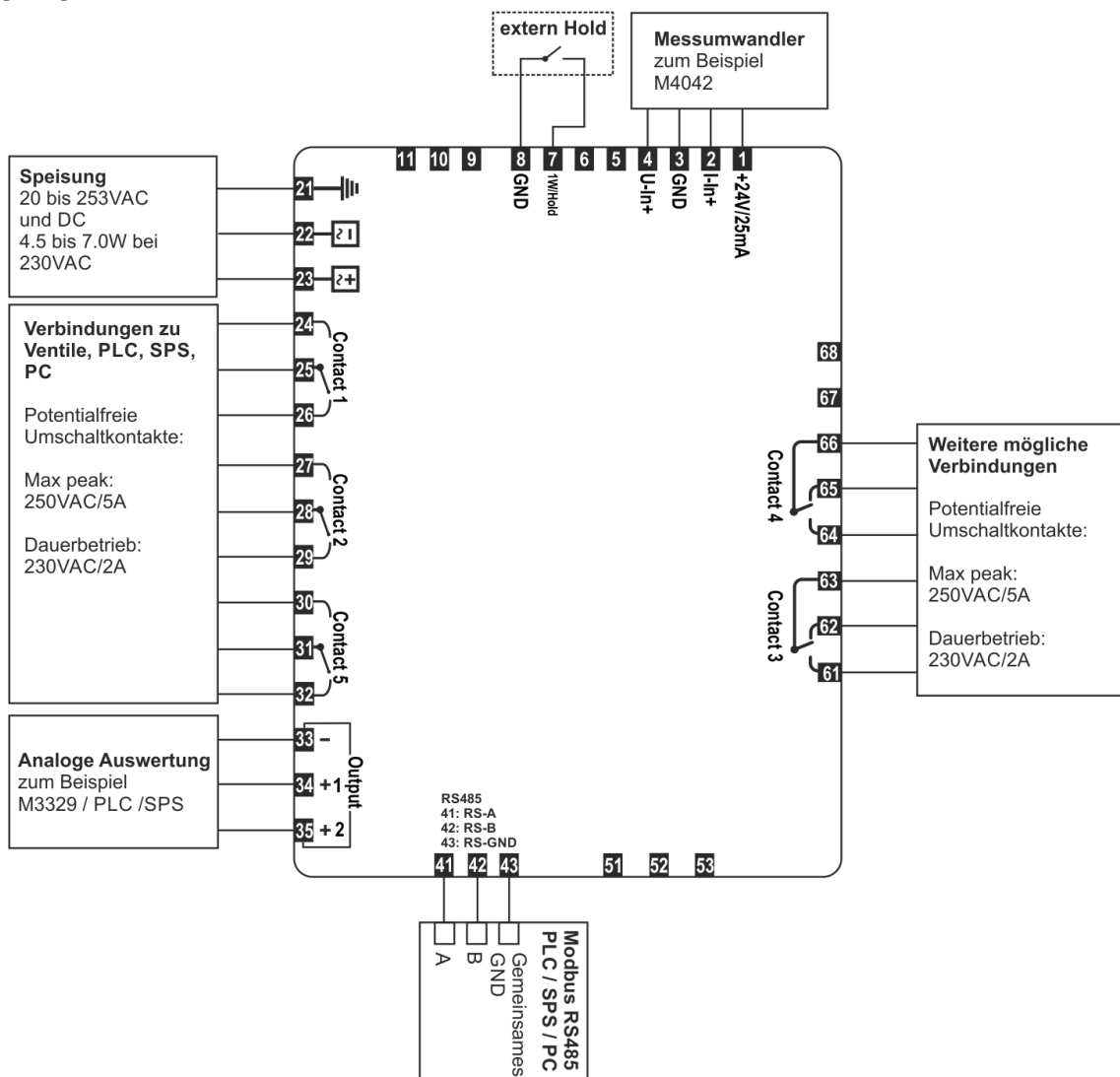
-input: 4...20mA

-indication: 50.0...100.0%

-signal output 1 : 50.0...100.0% = 0...20mA

-Signal output 2 : 50.0...70.0% = 0...20mA

### Wiring diagram



## Connections

1	2-wire +	2	I-In+ input	3,8	GND	4	U-In+ input
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7	Hold input
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21	Protective earth PE	22	Supply power (-)	23	Supply power (+)
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24	Limit value 1: normally open contact (NO)	25	Limit value 1: Changeover contact	26	Limit value 1: normally closed contact (NC)
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27	Limit value 2: normally open contact (NO)	28	Limit value 2: Changeover contact	29	Limit value 2: normally closed contact (NC)
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30	Limit value 5: normally open contact (NO)	31	Limit value 5: Changeover contact	32	Limit value 5: normally closed contact (NC)
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33	GND signal outputs	34	Signal output 1	35	Signal output 2
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41	Modbus RS485-A	42	Modbus RS485-B	43	Modbus RS485-GND
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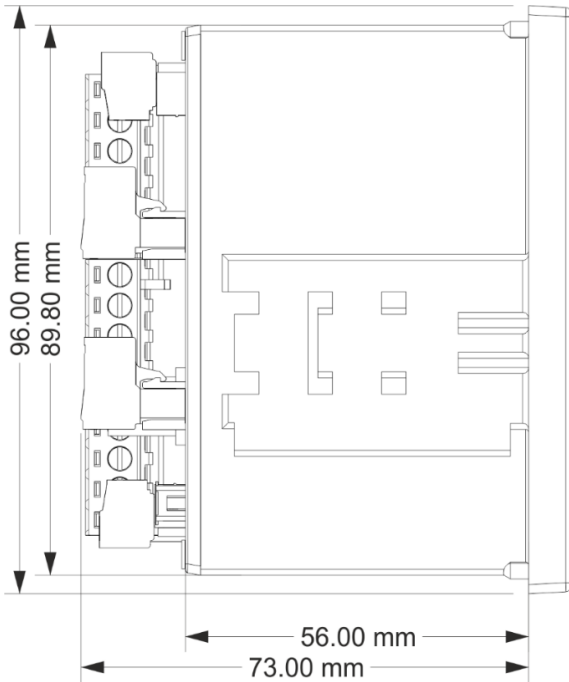
61	Limit value 3: normally open contact (NO)	62	Limit value 3: normally closed contact (NC)	63	Limit value 3: Changeover contact
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64	Limit value 4: normally open contact (NO)	65	Limit value 4: normally closed contact (NC)	66	Limit value 4: Changeover contact
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## Dimensions

Front panel mounting requires a cutout of 91x91mm.

Side view:



Rear view:

