

Conductivity Controller

Type M3036

- ✓ Illuminated graphic display
- ✓ Temperature compensation
- ✓ Programmable
- ✓ Alarm function
- ✓ USB-Logger
- ✓ Wide range power supply
- ✓ Up to 5 relay outputs



Technical description

The M3036 conductivity meter is suitable for water, waste water or pure water conditioning in continuous or batch-type operating modes, to control concentration in cooling towers or for general chemical process monitoring.

The actual measuring value, the temperature and the status of the instrument is continuously displayed. 4 LED lamps display the status of the limit contacts, temperature sensor and alarm contacts.

All settings are conveniently set by the user friendly menu.

Important settings can be made directly on the main screen without entering the setup menu. The settings can be protected by a code, so that unwanted changes of the setup data are avoided.

The instrument comes with a galvanically separated wide range power supply that accepts supply voltages between 20VAC/DC and 253VAC/DC. To be fully functional a conductivity probe is needed only.

The temperature compensation can be made manually or with an external Pt-100 temperature sensor built in the conductivity probe. A broken wire of the temperature probe leads to an alarm.

The measuring values can be automatically logged to a standard USB-stick.

The instrument as a programmable signal output, which can be defined between 0 ...20mA.

Standard conductivity sensors (with cell constants of 0.01, 0.1, 1.0 and 10.0) cover a measuring range of 55nS to 200mS ab. The cable capacity is continuously compensated so that the cable length is not a problem even with large cable lengths.

Technical Data

Measuring ranges:	0...2.000 μ S C = 0.01, C = 0.1 0...20.00 μ S C = 10.0, C = 1.0, C = 0.1, C = 0.01 0...200.00 μ S C = 10.0, C = 1.00, C = 0.1 0...2.000mS C = 10.0, C = 1.00, C = 0.1 0...20.00mS C = 10.00, C= 1.0 0...200.0mS C = 10.0
Accuracy:	0.50%
Display:	Graphic LCD 128x128 pixel
Pixel size:	0.4x0.4mm
Long-term stability:	Max. 50 μ V/ $^{\circ}$ C
Ambient temperature:	-5 ... 45 $^{\circ}$ C
Temperature drift:	Max. 50 μ V/ $^{\circ}$ C
Max. humidity:	95%, non condensing
Temperature compensation:	Manual from 0 to 130 $^{\circ}$ C. Automatic with external Pt-100, 3-wire sensor. Wire break of the Pt-100 sensor switches the device to 25 $^{\circ}$ C. Manual / automatic with (F4)
Temperature slope:	0.00%/ $^{\circ}$ C (no compensation) to 8.00%/ $^{\circ}$ C
Self conductivity of water:	controlled and compensated to 25 $^{\circ}$ C
Reference temperature:	25 $^{\circ}$ C
Max. length of cell cable:	Cable capacity is compensated until max capacity of 10nF or (10 ⁻⁸ F)
ENT key:	Quick access to settings or to save parameters
ESC key:	Access to the main menu, press and hold for 3 seconds, or exit menu item
+ / - key:	Set values
F3 key:	Change measuring range of measuring value, limit contacts and alarm limits
Programming functions:	Company label and various setting options via software
Signal current output:	0...20mA programmable, isolated against electronic ground
- Max load:	<500 Ω
- Output impedance:	Typ. >1M Ω

Relay contacts:	Adjustable over the full range
Hysteresis:	5 - 200 digits adjustable
Limit value status:	Displayed with green LEDs for contact 1/2, no LEDs for optional contact 3/4
Relay outputs:	Floating changeover contacts, max. 6A, 2A at 230VAC continuous inductive load
Alarm functions:	2 programmable limits, Pt-100 alarm if wires are broken, '1Wire' alarm if wires are broken, alarm if the pump's max. run time times out and an USB alarm if the stick/media is full. The alarm is displayed with the red LED and on display. Alarm can be acknowledged.
Alarm relay:	Same specifications as above
USB:	Logging function, programmable log-time, 1 to 7200 sec. Use only FAT32 formatted, empty USB flash drives. Stop logging mode before removing the USB-stick.
Supply:	20..253VAC/DC, up to 3W
CE-conformity:	Full filled
Terminals:	Plug-in terminals on the back panel
Weight:	304g
Hardware:	2 quick-mounting clips, 1 operating instructions with wiring diagram
Warranty:	2 year
Other options:	<ul style="list-style-type: none"> - special measuring range / signal output - customer functions, customer home screen / logo - 2 additional relay outputs (contact 3/4) - Transparent cover IP55

Terminals

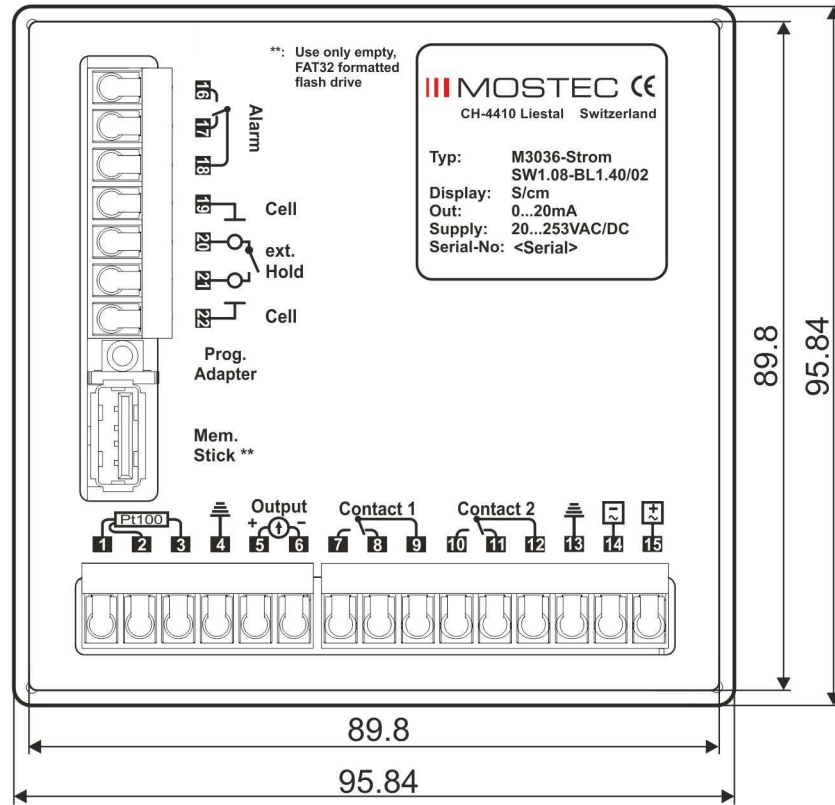
1	Pt-100 Sense -	11	contact 2 n/c	21	Digital Input - ISM InPro/ *, hold function*
2	Pt-100 -	12	contact 2 c/o.	22	conductivity cell input-
3	Pt-100 +	13	PE supply	23	contact 3 n/o *
4	PE Pt-100 / current output	14	N supply	24	contact 3 n/c *
5	current output +	15	L1 supply	25	contact 3 c/o *
6	current output -	16	alarm contact n/o	26	contact 4 n/o *
7	contact 1 n/o	17	alarm contact n/c	27	contact 4 n/c *
8	contact 1 n/c	18	alarm contact c/o	28	contact 4 c/o *
9	contact 1c/o	19	conductivity cell input+		
10	contact 2 n/o	20	Digital Input + ISM InPro/ *, hold function*		

Available sensors:



Dimensions / Cut out dimensions:

Rear view:



Side view:

