

## M300 pH/ORP (4-Wire) Reliable and Easy to Use



\* Available as of Q3/2008

### Feature Overview

- Available as single-channel or dual-channel version (for conventional or ISM sensors)
- Dual input channel version: each channel can be user-configured for pH, oxygen or conductivity
- 4 relays (dual-channel version: 6 relays)
- SW tools for configuration and

► [www.mt.com/M300](http://www.mt.com/M300)

The M300 transmitter line for pH/ORP, oxygen, and conductivity measurements combines robustness with ease of use. Its versatility and solid measurement performance makes it the ideal choice for light industrial applications. The M300 transmitters are designed for comfortable operation: from the large display to the easily accessible wiring terminals to the plain text interface and quick setup menu. With its innovative USB port, the M300 is open to the future – for remote configuration and commissioning. The version M300 for ISM offers the beneficial “Plug and Measure” feature thanks to the ISM functionalities.

### Specifications

Performance	
Measurement parameters	pH, mV, and temperature
pH, ORP input range	–1500 to 1500 mV
pH display range	–1 to 15 pH
Resolution	0.01 pH; 1 mV
Relative accuracy	± 0.03 pH; ± 2 mV
Temperature input	Pt 1000 (Pt 100 with adapter)
Temperature compensation	Automatic/manual
Temperature measuring range	–30 to 150 °C (–22 to 302 °F)
Temperature resolution	0.1 °C/°F
Temperature measurement error	± 0.25 °C (± 0.45 °F)
Calibration	1 or 2 point calibration, process calibration
General	
Power supply	100 to 240 V AC, or 20 to 30 V DC
Frequency for AC	50 to 60 Hz
Current output	2 × 0/4 to 20 mA, 22 mA alarm; 4 × (dual-channel)
Service interface	USB port
Display	Backlit LCD, 4 lines
Languages	8 (english, german, french, italian, spanish, portuguese*, russian* and japanese*)
Ambient temperature	–10 to 50 °C (14 to 122 °F)
Relative humidity	0 to 95 % non-condensing
Enclosure rating	¼ DIN: IP65 (front)
	½ DIN: IP65/NEMA 4X
Certification	M300 - cULus; M300ISM-N/A
PID process controller	Yes
Hold input	Yes
Control input	Yes
Alarm contact	Yes (alarm delay 0 to 999 s)
M300 for ISM	“Plug and Measure” feature

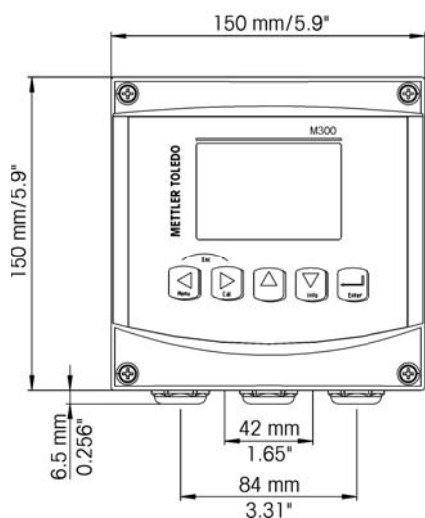
- commissioning using the USB port
- PID controller with pulse length, pulse frequency or analog control
- Multi-level password protection against accidental parameter

### Ordering Information

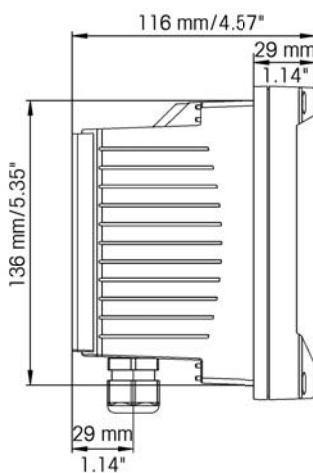
For Analog Sensors	Order Number	For ISM Sensors	Order Number
M300, 1/2 DIN, single-channel, pH/ORP	52 121 289	M300 ISM, 1/2 DIN, single-channel, multi-parameter	52 121 355
M300, 1/2 DIN, dual-channel, multi-parameter	52 121 293	M300 ISM, 1/2 DIN, dual-channel, multi-parameter	52 121 357
M300, 1/4 DIN, single-channel pH/ORP	52 121 286	M300 ISM, 1/4 DIN, single-channel, multi-parameter	52 121 354
M300, 1/4 DIN, dual-channel, multi-parameter	52 121 292	M300 ISM, 1/4 DIN, dual-channel, multi-parameter	52 121 356

Installation Accessories for 1/2 DIN Version	Order Number
Pipe mount kit	52 500 212
Panel mount kit	52 500 213
Protective hood	52 500 214
Pt 100 adapter for pH	52 121 332

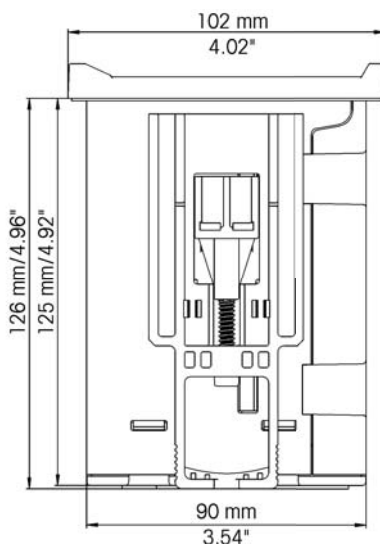
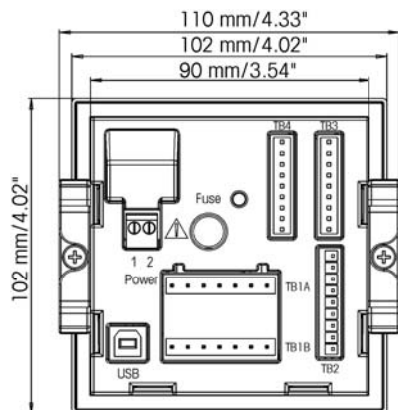
Front dimensions of M300, 1/2 DIN version



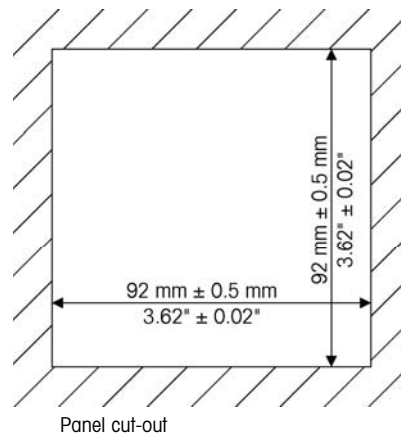
Side dimensions of M300, 1/2 DIN version



Side dimensions of M300, 1/4 DIN version



Cut-out dimensions of M300, 1/4 DIN version



changes

### Other Highlights

- M300 for ISM: "Plug and Measure" functionality
- 4-wire installation
- Communicates with the EasyClean system for automatic sensor cleaning
- Quick setup mode for fast installation
- Backlit high contrast display
- Basic diagnostics