

# InTap<sup>®</sup> 4000 e and InTap<sup>®</sup> 4004 e

## Portable dissolved oxygen analyzers

### Technical Data

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**InTap 4000 e**



**InTap 4004 e**

#### Short description

METTLER TOLEDO portable dissolved oxygen analyzers are designed for reliable, precise, repeatable and fast measurements, even under the most harsh conditions encountered in the beverage industry. Depending on your port connection, InTap 4000 e and InTap 4004 e offer maximum control of process quality in breweries and mineral water production.

- Rugged and sealed construction for harsh and humid conditions.
- Durable and waterproof.
- Advanced INGOLD modular sensor technology.
- Easy-to-replace membrane body – maintenance within two minutes including refilling electrolyte.
- Internal data management for 200 measurement values with data transfer to PC via RS232 interface.
- Measurement value can be downloaded to spread sheet programs.
- Smart menu guides the user through calibration and measurement procedures.
- Sensocheck<sup>®</sup> and Sensoface<sup>®</sup> provide continuous analyzer and sensor diagnostics.
- Calibration is easy and quick.
- Powered by three standard user-replaceable batteries.
- Low detection limit of 0.006 mg/l (6 ppb).
- Zwickel adapter unit (InTap 4004 e) for one handed operation in breweries.

#### Contents

Specifications	2
Drawings	3
Accessories	6
Ordering information	7
Analyzers	7
Accessories	7
Spare parts	7

**METTLER TOLEDO**

**Specifications**

InTap 4000e and InTap 4004e differ in their process connection. The InTap 4000e is fitted to the process by a tubing set and the InTap 4004e is fitted with a Zwickel adapter unit for easy clamp-on to the process.

**Analyzer description**

Display	LC display
Sensoface®/Sensocheck® diagnostics	Permanent sensor and analyzer monitoring indicates if calibration or maintenance is required
Automatic analyzer self-test	Analyzer status logging of RAM, PROM, EEPROM and display for QM documentation according to ISO 9000. Data recallable via RS232 interface.
Automatic calibration timer	0 ... 99 days (0=off)
Data management	200 measurement values. Stored either manually, time-controlled or event-controlled.
Power supply	3 × AAA-batteries 1.5 V (LR03)
Automatic switch-off	Configurable between 1 and 12 hours. Disabled during operation via interface or using data logger.
Data retention	Parameter and calibration data >5 years (EEPROM)
Interface	RS232 Baud rate: Configurable to 600/1200/2400/4800 and 9600 7 data bits, even parity, one stop bit, XON/XOFF protocol
Protection system	IP 66
Dimensions	195 × 230 × 75 mm/7.7 × 9.1 × 3.0" (W × H × D)
Process connection	InTap 4000e: Tubing set (∅ 4 mm/0.16") InTap 4004e: Zwickel adapter unit
Material	Transmitter housing: PA Interface clip: ABS Protective housing: PU
Weight	InTap 4000e: 1.56 kg (3.44 lbs) InTap 4004e: 2.95 kg (6.50 lbs)
Certification	Electrical safety: EN 50014, EN 50020 EMC: 89/336/EEC Emissions: EN 50081-1, EN 61326, EN 61326/A Immunity: EN 50082-2, EN 61326, EN 61326/A1

**Sensor description**

Measurement principle	Amperometric/polarographic
Dimension	Diameter: 12 mm (0.47") Length: 86 mm (3.39")
Connection	Vario Pin (IP 68)
Polarization	Connected sensor is automatically polarized, even when analyzer is switched-off.
Temperature sensor	NTC 30 kΩ (for temperature compensation)
Accuracy of temperature probe	< 0.2 °C ± 1 digit

**Ambient conditions**

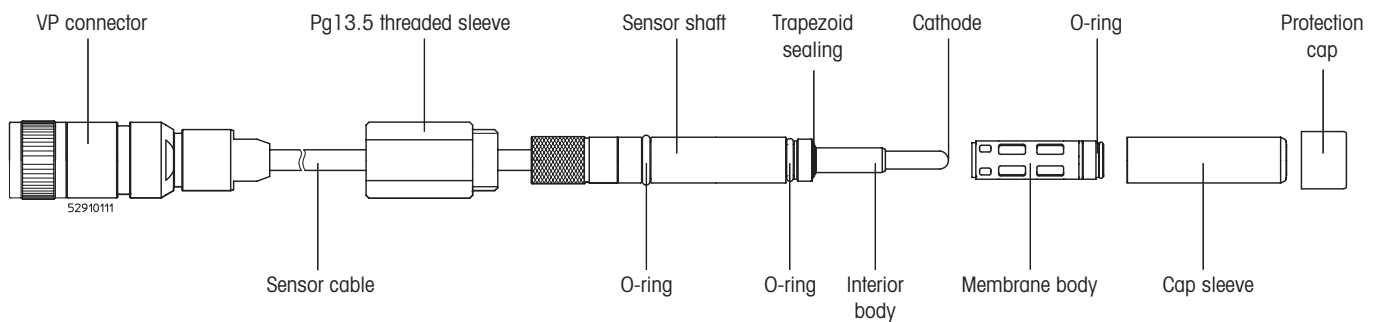
Storage temperature	-20 ... +70 °C (-4 ... +158 °F)
Operating temperature	-10 ... +55 °C (14 ... +131 °F)
Atmospheric humidity	0 ... 100%

Specifications

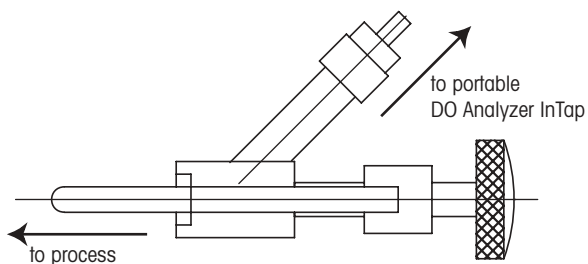
Display units	
Air saturation	0 ... 199% 0.0 ... 199.9%
Dissolved O <sub>2</sub> concentration	0.000 ... 1.999 ppm or mg/l 0.00 ... 19.99 ppm or mg/l
Temperature	-10 ... 70 °C (14 ... 158 °F)
Performances	
Detection limit	0.006 mg/l (6 ppb)
System accuracy	O <sub>2</sub> saturation: $\geq \pm [0.5\% \text{ of reading} + 0.1\%]$ O <sub>2</sub> concentration: $\geq \pm [0.5\% \text{ of reading} + 0.01 \text{ mg/l}]$ $\geq \pm [0.5\% \text{ of reading} + 10 \text{ ppb}]$ (within temperature range from 0 ... 35 °C/32 ... 95 °F)
Response time (t <sub>98%</sub> ) (air → nitrogen [N <sub>2</sub> ])	< 60 seconds
Calibration	Automatic calibration in air Automatic zero point calibration Manual calibration to defined DO concentration Manual zero point calibration Automatic product calibration

Drawings

InTap 4000 e/4004 e sensor

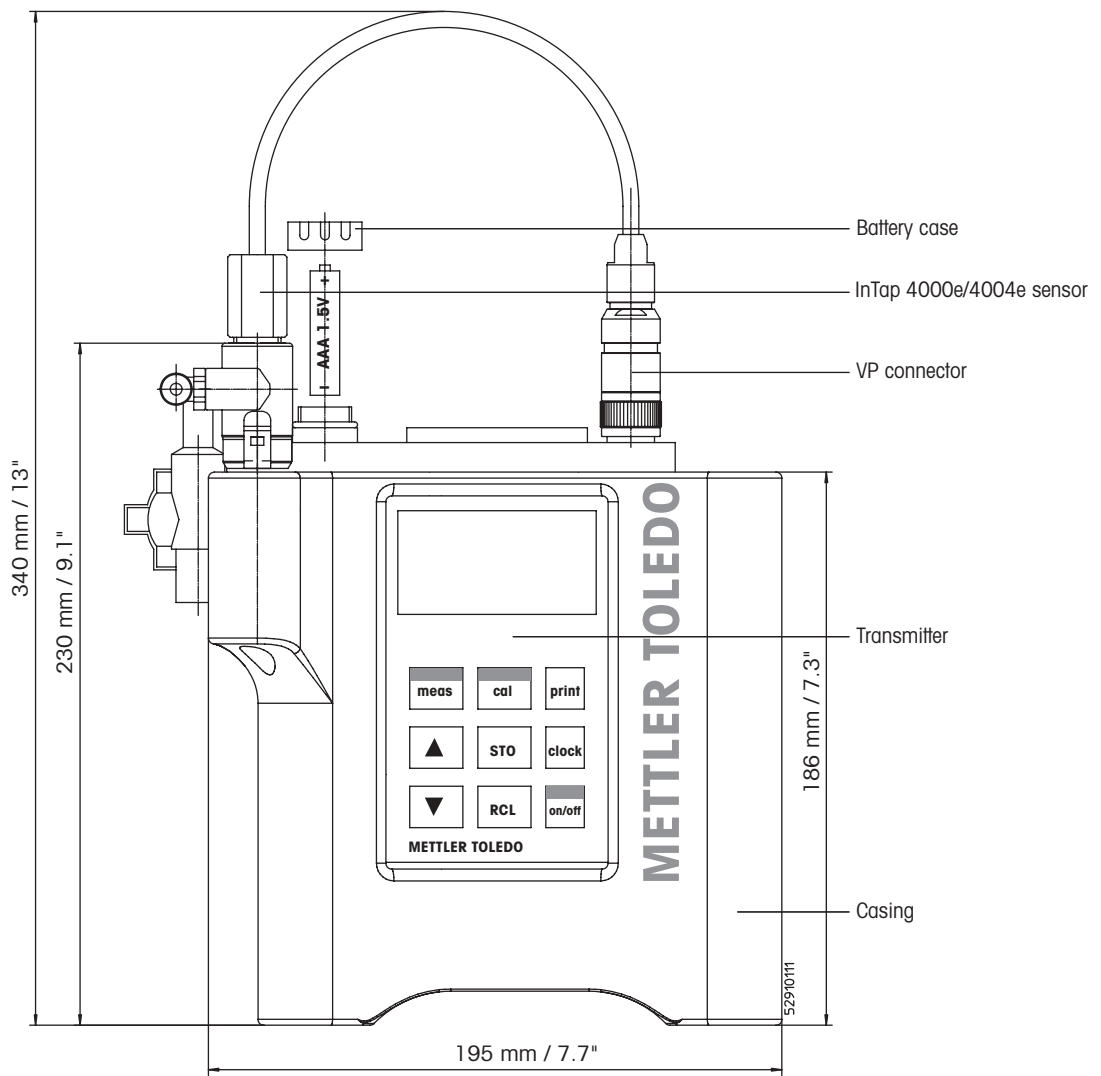


Zwickel tank connector



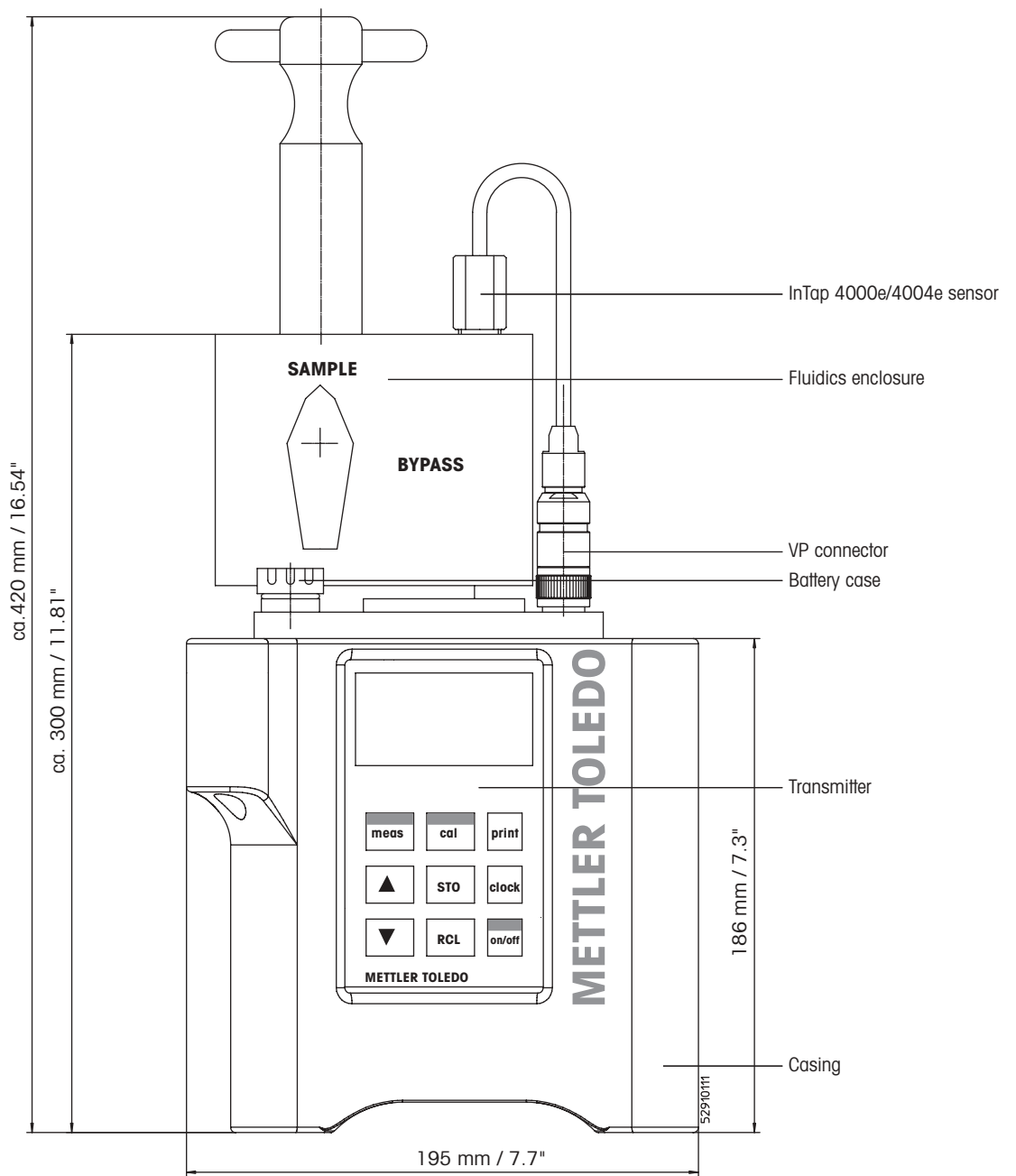
Drawings

InTap 4000 e



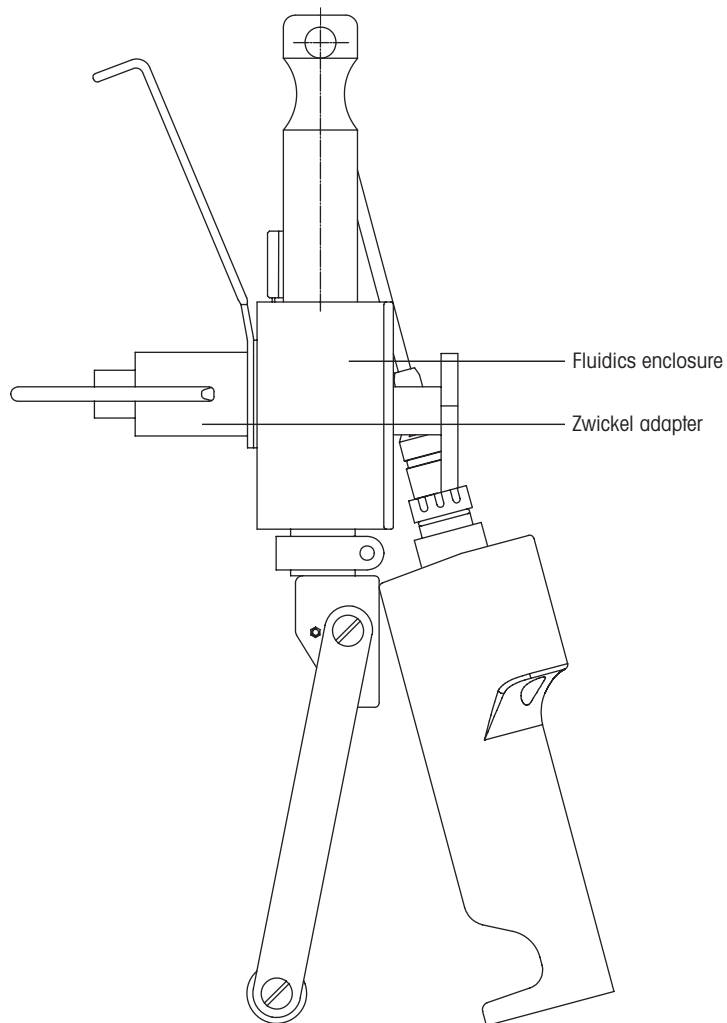
Drawings

InTap 4004 e (front view)



Drawings

InTap 4004 e (side view)



Accessories

Bottle and can unit  
(Haffmans InPack 2000)



Zwickel tank connector



Ordering information

Portable DO analyzers InTap	Order no.
InTap 4000 e, delivered in carrying case	52 201 085
InTap 4004 e	52 201 086
Accessories	Order no.
Bottle and can sampling device (Haffmans InPack 2000)	Ask your local METTLER TOLEDO sales representative
Zwickel tank connector	52 200 261
Spare parts	Order no.
InTap 4000 e/4004 e sensor	52 200 766
InTap 4000 e/4004 e transmitter	52 201 009
InTap 4000 e/4004 e O-ring set	52 200 774
InTap 4000 e/4004 e measuring cell	52 200 258
InTap 4000 e/4004 e casing, blue with black top cover	52 200 259
InTap 4000 e/4004 e membrane kit consisting of:	52 200 773
– 4 membrane bodies InTap 4000 e/4004 e	
– replacement O-rings	
– 25 ml electrolyte	
InTap 4000 e carrying case	52 200 818
InTap 4004 e fluidics enclosure and fixation set	52 200 995
InTap 4004 e tubing kit consisting of:	52 200 998
– discharge tube	
– 4 tubing for fluidics enclosure	
InTap 4004 e up-grade kit consisting of:	52 201 011
– fluidics enclosure with Zwickel	
– tubing adapter kit	
– instruction manual InTap 4004 e	
InTap 4004 e tubing adapter kit for conditioning	52 201 000
Electrolyte (25 ml)	34 100 2016
Cleaning and conditioning set consisting of:	52 200 255
– 20 tablets	
– 1 beaker	
– 1 syringe	
Liquid handling set consisting of:	52 200 770
– supply tube	
– bypass tube	
– discharge tube	
– 3-way valve	
– 2 screws for valve	

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