

# Transmitter

**INGOLD**

Leading Process Analytics

**«Advanced Line» transmitters**

- pH 2100e
- O<sub>2</sub> 4100e / 4100ppb
- Cond 7100e
- Cond Ind 7100e

**Your benefits**

- Reliability
- Safety
- Performance



**«Advanced Line» transmitters:  
Top performance for demanding applications.**

**METTLER TOLEDO**

# Welcome to the «Advanced World».



Brewing industry with O<sub>2</sub> and conductivity (CIP) measuring systems.



Pharmaceutical and chemical industry with pH, O<sub>2</sub> and conductivity measuring systems.



Pulp and paper industry with pH and electrodeless conductivity measuring systems.

**METTLER TOLEDO has long been a leading supplier of measuring equipment and systems to the process industry around the globe. Our international leadership has been achieved through our ability to guarantee exceptional levels of reliability needed to assure sustained operational safety of our customer's processes. We also deliver substantial cost-savings through minimal maintenance and sustained «up time» operation. METTLER TOLEDO is a partner you can count on.**

Whenever the need arises to complete your system with a state-of-the-art transmitter for demanding applications, METTLER TOLEDO offers you with its «Advanced Line» transmitters, the product you will never want to miss again, whichever field of application you are active in:

- Pharmaceutical industry
- Food and beverage industry
- Pulp and paper industry
- Chemical industry

## Go for reliability and operational safety

### Operational safety and reliability

- Operational safety provided through continuous sensor and transmitter diagnostics

### Outstanding performance brings advantages to your application

- Simultaneous monitoring of measuring parameter and temperature due to 2 current outputs
- Loop autonomy with PID controller
- In-line and off-line calibration routines to adapt to process needs
- Communication interface for automatic cleaning and calibration devices

### Easy installation and operation

- Self-explanatory operation through pictographic user-interface and Sensoface®

The «Advanced Line» transmitters give you superior performance, advanced diagnostics, and leading edge functionality. It's all about information, and «Advanced Line» transmitters give you what you need to control your process, regardless of the application.

# Get impressed by higher performance.



Easy wiring.

## Installation features common to the «Advanced Line» transmitters

- Wall, pipe or panel mounting
- Robust polymer (PBT) enclosure to IP 65
- Universal power supply 20 to 250 V AC/DC
- Available as intrinsically safe 2-wire versions for hazardous areas



Large LCD with pictographs.

## Enhanced operation: Integral, shared features of the «Advanced Line» transmitters pH, O<sub>2</sub> and Conductivity

- 2 current outputs for simultaneous monitoring of process parameter and temperature
- Extended calibration features incl. sample calibration
- PID controller for loop autonomy
- User-prompted operation through pictographs with Sensoface® alerts on sensor condition («Smilies»)
- Status indication of current operation mode, and optical alarms
- Communication interface for automatic sensor cleaning and calibration systems (EasyClean) to allow maintenance-free operation
- Sensor diagnostics SensoCheck® for increased operational safety
- External «HOLD» contact for master-slave operation
- Alternatively as intrinsically safe 2-wire design, for installations in hazardous environments, with HART® or Profibus® PA communication interface



Sensor and transmitter diagnostics.

## Product-specific key features

### Transmitter pH 2100 e

- Preselection of buffer sets
- Compatible with non glass (ISFET) sensors
- Sensor diagnostics

### Transmitter O<sub>2</sub> 4100 e/ 4100 ppb

- Pressure correction (mbar / kpa / psi)
- Input for NTC 22 / 30 kΩ
- Low-level measurement
- Programmable polarization voltage

### Transmitter Cond/Cond Ind 7100 e

- Calibration to measured value or cell constant
- Two independent parameter sets retrievable via «CONTROL»-input for automatic range selection (CIP)
- Concentration measurement



pH 2100 e



O<sub>2</sub> 4100 e  
O<sub>2</sub> 4100 ppb



Cond 7100 e  
Cond Ind 7100 e

# The system makes the difference...

METTLER TOLEDO offers a wide range of technological measurement solutions for the area of industrial Process Analytics:

- A complete range of electrodes/sensors for pH/ORP, O<sub>2</sub>, conductivity, and turbidity measurements
- A wide variety of static and retractable housings, cables and dedicated accessories as well auxiliary systems such as automatic sensor cleaning and calibration devices
- We have a comprehensive line of transmitters to meet your most demanding requirements, including compatibility with sophisticated, modern communication and automation systems



## Professional service and support is always close at hand

Our professional worldwide distribution and service network provides you with the best possible technical and application support, ranging from consulting through to trouble-shooting.



## Ordering information for «Advanced Line» transmitters:

Technical data sheet (TD)

with detailed product information and product order numbers

order no. 52 121 132

or contact your METTLER TOLEDO sales representative

Documentation material for products and systems (available in Englisch, German and French):



### Transmitters

- «Value Line»
- «Advanced Line»
- «Premium Line»



### pH / ORP

- Gel / polymer electrodes
- Liquid electrodes
- Non-glass electrodes
- Polymer body electrodes



### O<sub>2</sub>/DO

- Value sensors
- Advanced sensors
- Portable instruments



### Conductivity

- Value sensors
- 2/4-electrode sensors
- Inductive sensors



### Turbidity

- Medium to high turbidity



### Housings

- For gel and polymer electrodes
- For liquid electrolyte electrodes



### Cleaning & calibration systems

- EasyClean family



Management System certified according to ISO 9001 / ISO 14001

Sales and service: