High-performance transmitter M 700 – for flexible, multi-parameter process control.

M 700 transmitter for:
- pH / ORP
- Dissolved oxygen (DO)
- Conductivity

Benefits:
- Three selectable modules
- User-configurable parameter combinations
- Specific application software options
The modular concept allows integration of up to three modules into one basic instrument. Double channel measurement reduces total costs per measuring loop typical for fermentation processes (pH/DO) or redundant measurement in chemical processes (pH/pH). The flexible hardware and software concept allows you to adapt easily to new market or application requirements.

The M 700 has no communication limitations. Modules for PROFIBUS® PA and extended output modules fully integrate the M 700 into all control systems. Extended data storage is possible with the SMARTMEDIA™ card capability which allows transfer of your data to a personal computer.

Enclosure designs are available for all application areas / environments:

The polished stainless steel version is designed for hygienic applications in the pharmaceutical industry, in biotechnology, as well as in the food and beverage industry.

Two coated stainless steel enclosures are designed for applications in harsh environments, such as the chemical-, and pulp and paper industry for hazardous and non-hazardous areas.

Benefits at one glance

**Cost savings through modularity**

Food and beverage industry: M 700 S stainless steel transmitter for hygienic production.

**Unlimited communication**

Chemical industry: M 700 C coated transmitter for harsh environment.

**Application oriented**

M 700 – A huge variety of combinations.

Define your own measuring package – here some possible examples for your application:

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<th>Application requirement (examples)</th>
<th>Food &amp; beverage</th>
<th>Chemical Industry</th>
<th>Pharmaceutical industry</th>
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<tbody>
<tr>
<td>Hygienic design</td>
<td>M 700S</td>
<td>M 700XC</td>
<td>M 700S</td>
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<td>Splash proof (IP65)</td>
<td>Stainless steel polished</td>
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<td>Stainless steel polished</td>
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<td>PROFIBUS® PA</td>
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<tr>
<td>Harsh environment</td>
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<td>Hazardous area</td>
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<td>Hygienic design</td>
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<td>FDA 21 CFR Part 11 compliant</td>
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<td>Output</td>
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</table>

- Transmitter enclosure:
  - Food & beverage: M 700S
  - Chemical Industry: M 700XC
  - Pharmaceutical Industry: M 700S

- Measuring modules:
  - Food & beverage: DO, DO ppb
  - Chemical Industry: pH Ex, Cond Ind Ex
  - Pharmaceutical Industry: pH, DO

- Communication module:
  - Food & beverage: PROFIBUS® PA
  - Chemical Industry: PID Ex (control)
  - Pharmaceutical Industry: OUT (output)

- Optional software:
  - Food & beverage: Measuring recorder, Extended logbook, Tolerance band recorder
  - Chemical Industry: Concentration table, Parameter sets, Measuring recorder, Adaptive calibration timer
  - Pharmaceutical Industry: Parameter sets, Extended logbook, FDA 21 CFR Part 11 compliance support

For other suggested packages ask for the technical data or consult your METTLER TOLEDO sales representative.
Unique plug-and-play concept.

Plug & play
Place the modules into the M 700 enclosure and the system is ready for measurement.

Everywhere on one card
SMARTMEDIA™ stores measurement values and parameter settings.

The base unit includes two 0/4…20 mA outputs and four relay contacts.

Easy operation enhances process safety.

The well arranged and extremely user friendly keypad and the bright and back lit display are designed for easy operation and read out of measuring data. Sensor and transmitter diagnostics, several alarm and asset management functions also ensure the highest possible process safety. This intuitively designed user interface makes every operator’s job easier and more productive.

Display
The bright and back lit LC display indicates four measuring values at one glance. The primary and secondary measurement values in large and easy readable figures on the top and the secondary displays on the bottom are user-configurable.

Menu
The four navigation buttons and user-friendly, well-arranged icons allow easy set up and configuration. Three level password protection for calibration, maintenance and configuration guarantees the highest level of process safety.

Diagnostics
On-line sensor diagram reduces downtime with the unique sensor diagnostic tool. The unique network diagram displays all relevant information about the condition of the sensor and alerts the user in advance of required sensor replacement or maintenance.
M 700 – a versatile, highly flexible system.

The modular M 700 measuring system provides flexible solutions precisely tuned to the measuring task.

- Three user-selectable slots for measuring and communication modules.
- Freely selectable software functions to increase safety, performance and diagnostics.

Choose your measuring modules*
- pH 2700
- O₂ 4700 / 4700 ppb
- Cond 7700
- Cond Ind 7700

Choose your communication modules*
- OUT 700, two 0/4...20 mA
- PID 700, control
- PA 700, PROFIBUS®

(* select up to three modules overall, e.g. pH/DO/Out)

Choose your software options
- Artificial intelligent process recorder
- Adaptive calibration timer
- FDA 21 CFR Part 11 compliance support
- Measuring recorder
- Extended logbook
- Parameter sets
- ServiceScope

Your benefits:
- Flexibility of the system allows you to adapt the transmitter for new applications.
- Easily configurable for any liquid analytical application.
- Extended diagnostics assure top performance.
- Improve your local process integrity with enhanced software information tools.
- Multi-channel measurement saves costs (hardware, installation).
The flexible 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, DO, conductivity, turbidity and CO₂ measurements.
– A wide variety of static and retractable housings, cables and dedicated accessories as well as auxiliary systems such as automatic sensor cleaning and calibration devices.
– 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 the M 700 transmitters:
Technical data sheet (TD)
with detailed product information and product order numbers order no. 52 121 232
or contact your METTLER TOLEDO sales representative

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

- **Transmitters**
  - «Value Line»
  - «Advanced Line»
  - «Premium Line»

- **pH/ORP**
  - Gel/polymer electrodes
  - Liquid electrodes
  - Non-glass electrodes
  - Polymer body electrodes

- **O₂/DO**
  - Value sensors
  - Advanced sensors
  - Premium sensors
  - Portable instruments

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

- **Turbidity**
  - Low to medium turbidity
  - Medium to high turbidity

- **Housings**
  - For Ø 12 mm electrodes/sensors
  - For liquid electrolyte electrodes
  - InTrac® Series

- **CO₂**
  - In-situ measurement for in-line fermentation control

- **Cleaning & calibration systems**
  - EasyClean family

Sales and service:

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Management System certified according to
ISO 9001 / ISO 14001