Transmitter

M 700 transmitter for:

• pH / ORP
• Dissolved oxygen (DO)
• Conductivity

Benefits:

– Three selectable modules
– User-configurable parameter
  combinations
– Specific application software options

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

METTLER TOLEDO

The modular solution for all applications.

With the M 700 transmitter, METTLER TOLEDO, a leading supplier for process analytics measurement solutions, offers a unique system configurable to your individual application.

Benefits at one glance

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

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

Pharmaceutical industry:
M 700 S for hygienic environment and optional software supporting FDA 21 CFR Part 11 compliance.

Cost savings through modularity

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.

Unlimited communication

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.

Application oriented

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.

M 700 S
for hygienic applications

M 700 XC
for hazardous areas

M 700 – A huge variety of combinations.

**Define your own measuring package –
here some possible examples for your application:**
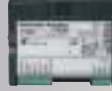
	Food & beverage	**Chemical industry**	**Pharmaceutical industry**
Application requirement (examples)	• Hygienic design • Splash proof (IP 65) • PROFIBUS® PA	• Harsh environment • Hazardous area • Splash proof (IP 65)	• Hygienic design • FDA 21 CFR Part 11 compliant • Output
Transmitter enclosure	**M 700 S** Stainless steel polished	**M 700 XC** Coated, Ex proof	**M 700 S** Stainless steel polished
Measuring modules	DO DO ppb	pH Ex Cond Ind Ex	pH DO
Communication module	PROFIBUS® PA	PID Ex (control)	OUT (output)
Optional software	• Measuring recorder • Extended logbook • Tolerance band recorder	• Concentration table • Parameter sets • Measuring recorder • Adaptive calibration timer	• 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.

Communication module
e.g. PA, PID, OUT

2nd module
e.g. pH, DO, Cond

1st module
e.g. pH, DO, Cond

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

The base unit includes
two 0/4…20 mA outputs
and four relay contacts.
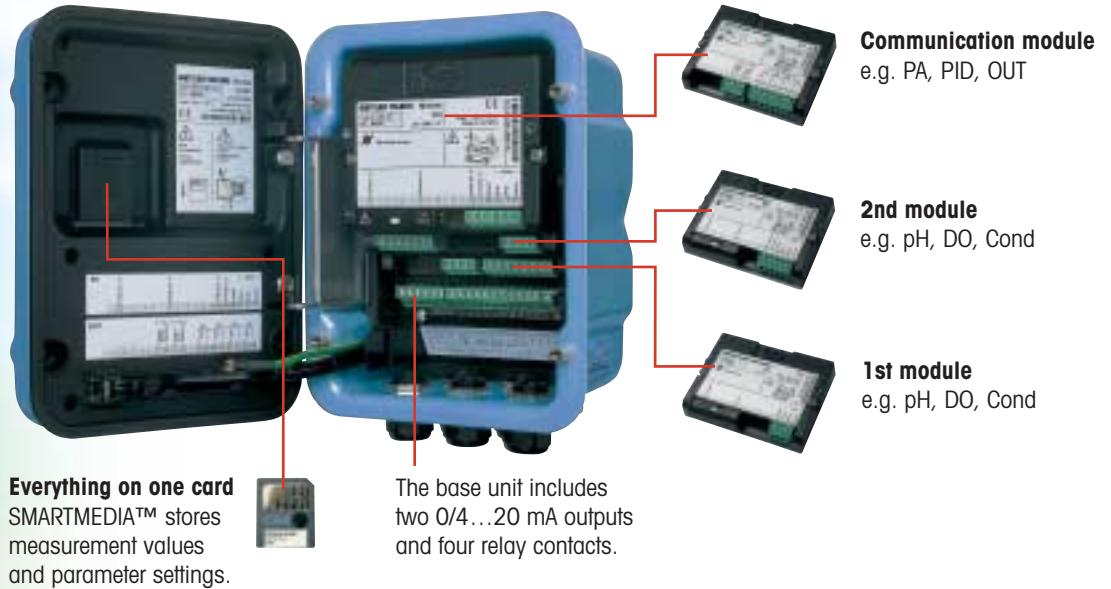
Easy operation enhances process safety.

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.
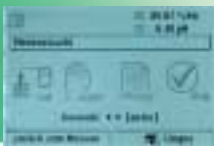
M 700 – a versatile, highly flexible system.

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
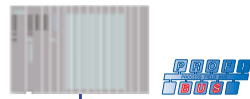- O_2 4700 / 4700 ppb
- Cond 7700
- Cond Ind 7700

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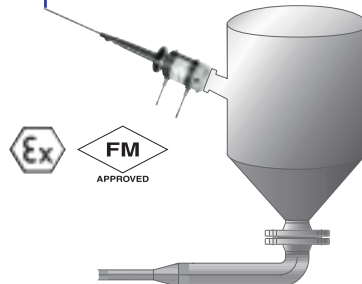- OUT 700, two 0/4…20 mA
- PID 700, control
- PA 700, PROFIBUS®

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

Integration into the DCS/PLC

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 CO_2 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.

SERVICE XXL

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

O_2/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

CO_2
- In-situ measurement for in-line fermentation control

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

Cleaning & calibration systems
- EasyClean family

Sales and service:

C E

ISO 9001 certified   **ISO 14001** certified

Management System certified according to ISO 9001 / ISO 14001

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