

**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.**

# 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

### 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

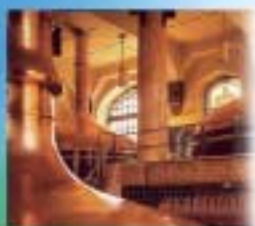
The M 700 has no communication limitations. Modules for PROFIBUS® PA and extended output modules fully integrate the M 700 into all control systems. Extended data storage is possible with the SMARTMEDIA™ card capability which allows transfer of your data to a personal computer.

### 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.



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



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



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

### M 700S

for hygienic applications

### M 700XC

for hazardous areas



# M 700 – A huge variety of combinations.

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









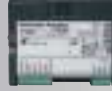





Food &amp; beverage



Chemical industry



Pharmaceutical industry

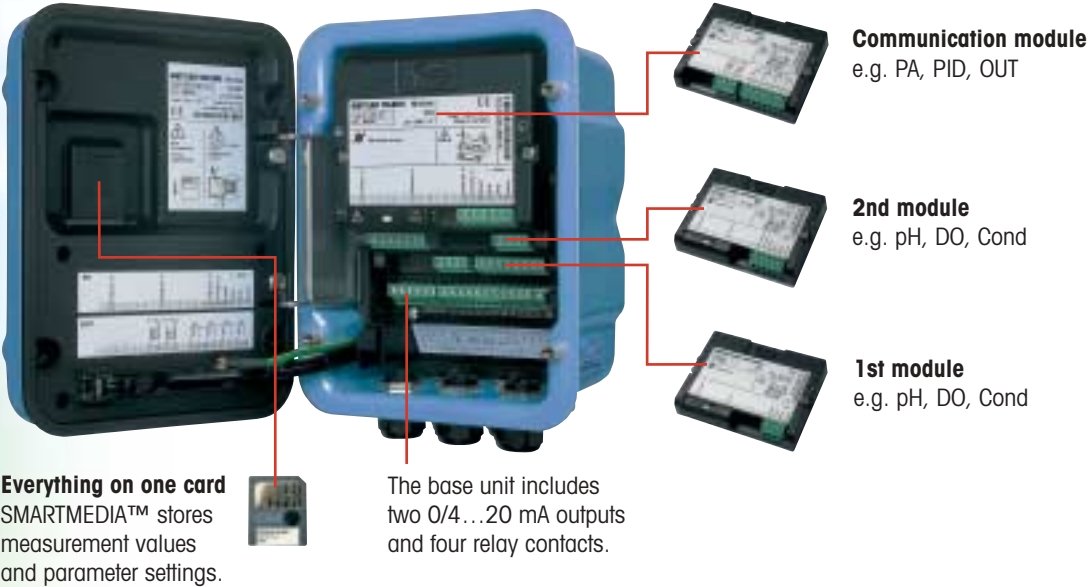
Application requirement (examples)	<ul style="list-style-type: none"> <li>• Hygienic design</li> <li>• Splash proof (IP 65)</li> <li>• PROFIBUS® PA</li> </ul>	<ul style="list-style-type: none"> <li>• Harsh environment</li> <li>• Hazardous area</li> <li>• Splash proof (IP 65)</li> </ul>	<ul style="list-style-type: none"> <li>• Hygienic design</li> <li>• FDA 21 CFR Part 11 compliant</li> <li>• Output</li> </ul>
Transmitter enclosure	 <b>M 700S</b> Stainless steel polished	 <b>M 700XC</b> Coated, Ex proof	 <b>M 700S</b> 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	<ul style="list-style-type: none"> <li>• Measuring recorder</li> <li>• Extended logbook</li> <li>• Tolerance band recorder</li> </ul>	<ul style="list-style-type: none"> <li>• Concentration table</li> <li>• Parameter sets</li> <li>• Measuring recorder</li> <li>• Adaptive calibration timer</li> </ul>	<ul style="list-style-type: none"> <li>• Parameter sets</li> <li>• Extended logbook</li> <li>• FDA 21 CFR Part 11 compliance support</li> </ul>

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.



## 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

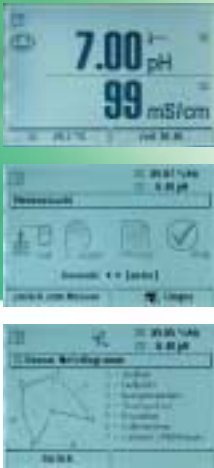
The bright and back lit LC display indicates four measuring values at one glance. The primary and secondary measurement values in large and easy readable figures on the top and the secondary displays on the bottom are user-configurable.

### 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<sub>2</sub> 4700 / 4700 ppb
- Cond 7700
- Cond Ind 7700

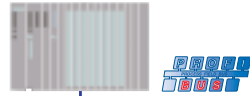


## **Choose your communication modules\***

- OUT 700, two 0/4...20 mA
- PID 700, control
- PA 700, PROFIBUS®

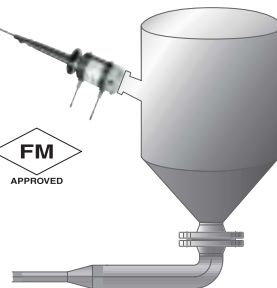
(\* select up to three modules overall, e.g. pH/DO/Out)

## **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<sub>2</sub> 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



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

- 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:



Management System  
certified according to  
ISO 9001 / ISO 14001