Transmitter Series

INGOLD
Leading Process Analytics

M100/M200/M300/M400/ M700/M800

Transmitters

Reliable Measurement

Intelligent Diagnostics

Versatile and Tailorable

Easy Handling

ISM®
Intelligent Sensor Management

Intelligent Transmitter Series

Tailor the Measurement to Your Needs

METTLER TOLEDO

METTLER TOLEDO
Commitment to Innovation and Quality

METTLER TOLEDO Group

Our company specializes in providing precision instrument equipment and related services to industrial customers. In 2015, METTLER TOLEDO generated revenues of US$ 2.4 billion. The company's stock has been publicly traded on the New York Stock Exchange since 1997.

Worldwide presence
We have a worldwide distributor network and a workforce of more than 13,500 employees. We support our customers in industry by providing comprehensive solutions for each step of their manufacturing processes – from receipt of materials throughout all manufacturing stages, through to final packaging control, logistics and shipping.

METTLER TOLEDO instruments are used in research and development, manufacturing process control and for quality control. The pharmaceutical, biotech, chemical, food and beverage, and cosmetic industries are among the principal users.

Process Analytics Division
Within the METTLER TOLEDO Group, the Process Analytics Division concentrates on in-line analytical system solutions for industrial manufacturing processes. The Division consists of two business units, Ingold and Thornton, both internationally recognized leaders in their respective markets and technologies.

Innovation and quality
METTLER TOLEDO Process Analytics enjoys an excellent reputation as an innovator, demonstrated by R&D expenditure above the industry average. Our innovative transmitter portfolio exemplifies our commitment to continuous improvement in order to meet customer requirements. Among our recent developments, transmitter compatibility with traditional analog and advanced digital sensors paves the way for future oriented production facilities.

Intelligent Sensor Management
Our unique Intelligent Sensor Management (ISM®) technology is improving production processes in factories and plants across the world. ISM greatly simplifies sensor handling and enhances process reliability, leading to reduced maintenance and fewer unplanned shutdowns.

Biopharmaceutical Industry
Continuous monitoring of critical process parameters is central to maintaining optimal growth conditions during the manufacture of biopharmaceuticals. Transmitters with ISM technology contribute to batch-to-batch consistency by providing simple and reliable determination of whether a sensor can be safely used for the next production run.

Chemical Industry
Due to their profound influence on product quality, process performance and safety, control of parameters such as pH, ORP, conductivity and oxygen is vital in today's chemical industry. METTLER TOLEDO's transmitters with ISM technology offer the ultimate in sensor "health" monitoring, allowing continuous, uncompromised measurement availability.

Food and Beverage Industry
Consistent product quality and superior plant efficiency are success factors in the highly competitive F&B environment. Being able to predict when sensor maintenance will need to be conducted and therefore prevent unscheduled downtime is of extreme value. This is precisely one function of METTLER TOLEDO's ISM concept which is integrated into ISM transmitters.

Petrochemical Industry
Not only in process control, but also in maintaining equipment integrity and preventing corrosion, in-line analysis has proven to be of utmost importance in petroleum processing. Our ISM transmitters with intelligent diagnostics are invaluable for predicting maintenance requirements.

Powerful Players
Select Your Access to the Process

METTLER TOLEDO provides tailorable transmitter solutions to meet the requirements of a wide range of applications. The transmitter series cover pH/ORP, oxygen, dissolved carbon dioxide and conductivity measurements. They are compatible with traditional analog and digital sensors with Intelligent Sensor Management (ISM).




	M200 (p. 12–13)	M300 (p. 14–15)	M400 (p. 16–17)	M700 (p. 20–21)
			4-Wire	
Channels	1/2	1/2	1	1/2
Plug and Measure	•	•	•	•
Dynamic Lifetime Indicator (DLI)	–	•	•	•
Adaptive Calibration Timer (ACT)	–	•	•	•
Time To Maintenace (TTM)	–	•	•	•
Calibration history	–	•	•	•
CIP/SIP autoclaving counter	–	•	•	•
iMonitor	–	•	–	–
Communication	–	–	–	Profibus PA FOUNDATION fieldbus
Panel Cutout	½ DIN, ¼ DIN	½ DIN, ¼ DIN	½ DIN	144 × 194 mm
Mixed-mode input	–	•	•	•
PID controller	–	•	•	•
Hold input	•	•	•	•
Analog input	–	–	1	2
Digital input	1/2	1/2	2	2
Relays/open collectors (OC)	2	4	6	4
Outputs	2/4	2/4	4	2
Approvals	UL	UL	ATEX Zone 2 FM Cl 1 Div 2	ATEX Zone 1 FM Cl 1 Div 2 CSA Cl 1 Div 2
Parameter compatibility (Ingold)				
pH/ORP/pNa	•	•	•	•
Dissolved oxygen				
Amperometric sensors				
High (InPro® 68xx)	•	•	•	•
Low (InPro 69xx)	–	–	•	•
Optical sensors				
High (InPro 68xx)	–	–	•	–
Low (InPro 69xx)	–	–	•	–
Gaseous oxygen				
High (InPro 68xx)	–	–	•	•
Low (InPro 69xx)	–	–	•	•
GPro 500®	–	–	•	–
CO_2				
InPro 5000 i	–	–	•	–
InPro 5500 i	–	–	•	–
Conductivity 2-e/4-e	•	•	•	•
Inductive conductivity	–	–	•*	•
Turbidity	–	–	–	–
Ozone	•	•	–	–
EasyClean™ compatibility	•	•	•	•

* Model dependent

	M800 (p. 22–23)	M100 2H DR (p. 10–11)	M100 2XH (p. 8–9)	M400 (G) 2(X)H (p. 18–19)	M400 FF (p. 18–19)	M400 PA (p. 18–19)
		2-Wire				
	1/2/4*	1	1	1	1	1
	•	•	•	•	•	•
	•	•	•	•	•	•
	•	•	•	•	•	•
	•	•	•	•	•	•
	•	•	•	•	•	•
	•	•	•	•	•	•
	•	–	–	–	–	–
	–	HART®	HART®	HART®	FOUNDATION fieldbus	Profibus PA
	½ DIN	–	–	½ DIN	½ DIN	½ DIN
	•*	–	–	•	•	•
	•	–	–	•	•	•
	•	•	•	•	–	–
	1	1	1	1	1	1
	4/5/6	1	1	2	2	2
	8	–	–	2	–	–
	4/8*	1	1	2	–	–
	FM Cl 1 Div 2*	–	ATEX IECEx Zone 1 CSA Cl 1 Div 1 NEPSI	ATEX IECEx Zone 1* FM Cl 1 Div 1/2* NEPSI*	ATEX IECEx Zone 1 FM Cl 1 Div 1 NEPSI	ATEX IECEx Zone 1 FM Cl 1 Div 1 NEPSI
	•	•	•	•	•	•
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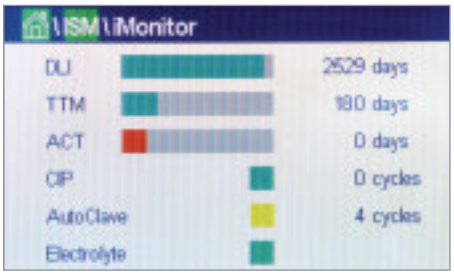
Intelligent Sensor Management
for the Process Industries

METTLER TOLEDO provides tailorable transmitter solutions to meet the requirements of a wide range of applications. The transmitter series cover pH/ORP, oxygen, dissolved carbon dioxide and conductivity measurements. They are compatible with traditional analog and digital sensors with Intelligent Sensor Management (ISM).

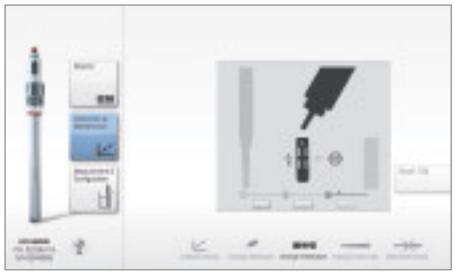
Plug and Measure
The Plug and Measure feature significantly simplifies measurement point start up. Sensors can be accurately pre-calibrated in a workshop with our iSense tool and stored for later use. When connected to the transmitter, calibration data are automatically uploaded and the system is ready to measure in an instant.

Multi-parameter
As only one model of transmitter is required for different parameters, the benefits of multi-parameter functionality are clear: greater flexibility, less complexity, and less training and inventory.



iMonitor – advanced ISM functionality
ISM's predictive maintenance features provide you with sensor diagnostics data such as the Dynamic Lifetime Indicator, Adaptive Calibration Timer and Time To Maintenance. This information prevents unplanned shutdowns due to unforeseen sensor failure, resulting in increased process availability and reduced maintenance effort.

ISM Diagnostics into Control and Asset Management Systems
Contrary to conventional analog sensors, digital ISM sensors offer flexible integration of key diagnostics data into respective systems. ISM therefore provides the most relevant, current sensor and maintenance information.



Easy Maintenance
Sensor reliability depends on the correct sensor calibration and maintenance. Save the cost of time consumption on learning sensor maintenance. Whether you are an expert or a first time user, iSense and its guiding animations will ensure each calibration and every maintenance procedure is performed reproducibly and without mistakes or missed steps.

Mixed-mode input
The mixed-mode input accepts analog or ISM sensors. This feature offers a unique and smooth transition from analog to digital sensor technology and provides a future oriented investment in your facility.

M100: Compact and Robust
Unequalled Simplicity in Hazardous Areas

The well-proven head mount transmitter concept is now available for analytical parameters. With its small footprint the M100, single-channel, multi-parameter transmitter provides convenience, the highest reliability and excellent process safety in hazardous area environments. Advanced sensor diagnostics available over HART result in reduced operating costs and help to improve productivity.

The M100 is the first transmitter for analytical measurements based on a compact, head mount design.

With its approvals for hazardous area use the M100 Head Mount transmitter provides operating assurance even in challenging environments.

The multi-parameter M100 with ISM technology covers measurement of pH/ORP, oxygen, and conductivity. Measurement data and advanced ISM sensor diagnostics such as the Dynamic Lifetime Indicator, Adaptive Calibration Timer, and Time To Maintenance can be output to control systems over HART. This smart communication capability enables more efficient maintenance and preventing unplanned shutdowns due to unforeseen sensor failure.

ISM's Plug and Measure feature minimizes the risk of installation troubles and simplifies sensor handling.

Low installation costs

Rugged construction and compact design allow direct installation next to the process. Thanks to its durability and approvals for use in hazardous areas the M100 Head Mount transmitter is the best choice for harsh environments.

Predictive maintenance

Easiest handling and on-site or remote access over HART to advanced ISM predictive diagnostics tools leads to reduced operating costs and increased process uptime.

Simple Plug and Measure operation

With iSense™, the key tool of ISM, sensors can be precalibrated via a PC then connected to the M100. Therefore, a user interface in the field is no longer necessary. This new transmitter concept reduces the operation and wiring effort to a minimum.

Measurement parameters

pH/ORP

Dissolved oxygen

Conductivity

Key technical data for the M100 compact transmitter line

ISM features	Plug and Measure, advanced diagnostics tools
Housing material	Die cast aluminum
Enclosure	IP66, NEMA 4X
Approvals	NEPSI, ATEX/IECEx Zone1, CSA Cl1 Div1
Analog inputs	1×4 to 20 mA (for pressure compensation)
Communication	HART
Cable connections	M20, NPT ¾"
4 to 20 mA with HART	
Supply voltage	14–30 VDC
Current outputs	1×4 to 20 mA (loop powered), galvanically isolated
Digital inputs	1, galvanically isolated

Visit for more information
www.mt.com/m100

M100: DIN Rail Transmitter
Compact for Simplified Installation

The M100 DR is a multi-parameter DIN rail transmitter for installation where space is minimal. Despite its slim size, the M100 DR features a wealth of features including Plug and Measure for fast, error-free startup, and predictive sensor diagnostics available over HART. The support of all major asset management tools ensures maximum compatibility.

The M100 DR is a single-channel, 2-wire multi-parameter transmitter compatible with ISM sensors for measuring pH/ORP, pH/pNa, oxygen and conductivity.

Carrying the HART protocol the M100 DR is easy to configure and allows straightforward integration of Intelligent Sensor Management (ISM®) sensor diagnostics such as the Dynamic Lifetime Indicator (DLI), Adaptive Calibration Timer (ACT), and Time To Maintenance (TTM) into asset management platforms.

LEDs clearly indicate transmitter and sensor status, alarms, and warnings.

ISM's Plug and Measure feature minimizes the risk of installation troubles and simplifies sensor handling.

Low installation costs

M100 DR is an easy to commission 2-wire transmitter for installations where space is at a premium.

Predictive maintenance

Access to ISM predictive diagnostic tools available over HART leads to reduced maintenance and increased process uptime.

Simple Plug and Measure operation

With iSense™ software, sensors can be calibrated via a PC or mobile device then connected to the M100 DR. Therefore, a user interface in the field is not necessary.

Measurement parameters

pH/ORP

Dissolved oxygen

Conductivity

ISM®

HART COMMUNICATION PROTOCOL

Key technical data for the M100 compact transmitter line

ISM features	Plug and Measure, DLI, ACT, TTM
Enclosure	IP 20
Suitable DIN rail systems	35 mm
Supply voltage	14 – 30 VDC
Analog output	1 × 4 to 20 mA (loop powered), galvanically isolated
Communication	HART
Analog input	1 × 4 to 20 mA (for pressure compensation)
Digital input	1, switching transmitter in HOLD state
4 to 20 mA with HART	
Supply voltage	14 – 30 VDC
Current outputs	1 × 4 to 20 mA (loop powered), galvanically isolated
Digital inputs	1, galvanically isolated

Visit for more information

www.mt.com/m100

Convenient and Reliable
For basic water and process applications

The METTLER TOLEDO M200 series of basic analytical instruments provides single and dual channel multi-parameter models to measure conductivity/resistivity, pH/ORP, dissolved oxygen, dissolved ozone and flowrate.

The M200 transmitter line provides exceptional ease-of-use for measuring various parameters in the process analytics. These include conductivity/resistivity, pH/ORP, dissolved oxygen, dissolved ozone and flow. The M200 is fully compatible with the easySense sensor line and a range of ISM sensors. Plug and Measure feature provides fast and error free sensor installation. A large four line backlit LCD display conveys measuring data and setup information.

The menu structure allows the operator to modify all operational parameters by using keys on the front panel. User management, with password protection, prevent the unauthorized access to the transmitter.

The M200 multi-parameter transmitter can be configured to use its up to 4 analog outputs and/or 2 relays for process control.

The M200 transmitter is equipped with a USB interface for on-site firmware update or configuration. Using the Windows based TCT software tool (included with each transmitter) commissioning and maintenance is easy.

Versatile

- Accepts all digital easySense sensors and a range of ISM sensors.
- Multi-parameter transmitter for pH, O_2, O_3 and conductivity.
- M200 single or dual channel version, panel or wall mounting.

Convenient

- Fast commissioning and error-free startup due to Plug and Measure feature.
- Pre-calibrated sensors with iSense can be immediately put to use.
- Minimal sensor configuration is needed.

Economical solution

- M200 with its excellent price/performance ratio minimizes the costs of ownership.
- Configuration via PC and the free transmitter configuration tool (TCT) saves time.
- USB interface for configuration and firmware update.

Measurement parameters

pH/ORP

Dissolved oxygen

Conductivity

Ozone

ISM®

c UL us LISTED

Key technical data for the M200 transmitter line

Operator interface	4 line back-lit LCD; 5-tactile keys	
UL Electrical Environment	Installation (overvoltage) Category II	
Approvals	UL listed, CE compliant	
EMC	Compliant with EN61326-1:2013 (Industrial Environment Emission: Class B, Immunity: Class A)	
Power	Universal 100–240 VAC, 50–60 Hz or 20–30 VDC; 5 W	
Analog outputs	Powered 0/4–20 mA, 22 mA alarm	
Relays	All contacts are potential free, with adjustable hysteresis and time delay SPDT: 250 VAC/30 VDC, 3 A, resistive	
Digital communications	USB, type B connector, for remote configuration and data acquisition with TCT software	
Discrete input	Accepts dry contact closure for remote PID control auto/manual selection	
Outputs	**One Channel**	**Two Channel**
Setpoints/Alarms (high, low, outside, between, USP or EP)	4	6
Relays	2 – SPDT	2 – SPDT
Analog Output Signals	2	4
Discrete Inputs	1	2

Visit for more information
www.mt.com/m200

M300: Versatile and User-Friendly
Convenience at a Touch

The multi-parameter M300 Process transmitter series for pH/ORP, dissolved oxygen, conductivity and ozone measurements offers exceptional measurement performance as well as excellent user ergonomics. Predictive maintenance is possible with the full ISM sensor diagnostics features.

The multi-parameter M300 Process transmitter series for pH/ORP, dissolved oxygen, conductivity and ozone measurements offers exceptional measurement performance as well as excellent user ergonomics.

The high contrast black and white 4" touchscreen together with the harmonized menu structure for all parameters, facilitates navigation and ensures easy and user-friendly operation. Online diagnostics information allows the planning of sensor maintenance or even replacement.

The clearly visible diagnostic information inform the user when it is time to do maintenance or calibration of sensors equipped with Intelligent Sensor Management (ISM) technology. Fast startup with the Plug and Measure functionality offers pre-calibration of ISM sensors in the lab and swift exchange in the field.

The integrated USB interface supports data logging, printer connection or up- and downloading of configurations. Speed up the commissioning by using the PC-based configuration tool TCT for programming the transmitter at a convenient location.

High Flexibility

Multi-parameter transmitters available as one or two channel models, accept analog sensors as well as digital ISM sensors.

Intuitive Operation

The M300 provides exceptional user friendly operation with a touchscreen and a clear display of important measurement information.

Predictive Maintenance

ISM predictive maintenance features provide sensor diagnostics. This information reduces maintenance efforts and prevent the risk of unplanned shutdowns.

Measurement parameters

pH/ORP

Dissolved oxygen

Conductivity

Ozone

ISM®

c UL US LISTED

Key technical data for the M300 transmitter series (1-channel and 2-channel)

ISM features	Plug and Measure, full diagnostics
Power	AC (100–240 V) or DC (20–30 V)
Enclosure	IP65
Approvals	UL (cULus) Type 4
Current outputs	4×0/4 to 20 mA (2 for 1 channel model), galvanically isolated
Relays	4
Digital inputs	2 (1 for 1-channel model)
Multi-level password protection	Yes
User interface	4" b/w TFT touchscreen 320×240 pixel
Service interface	1× USB host, 1× USB device

Visit for more information
www.mt.com/m300

M400: Versatile and Intelligent
Advanced Process Control

Advanced predictive diagnostics technology is one of the main benefits of the M400 transmitter series. Along with its multi-parameter capabilities the M400 is the state-of-the-art transmitter for your most demanding applications.

The M400 is a single-channel, multi-parameter transmitter. The same unit can handle different parameters depending on the model chosen.

This transmitter series features advanced ISM functionality and provides real-time status information from the sensor for true predictive maintenance.

- The Dynamic Lifetime Indicator (DLI) tells you when the sensor will need to be replaced
- The Adaptive Calibration Timer (ACT) monitors the time to next calibration
- Time to Maintenance (TTM) indicates when maintenance will next be required

The M400's unique mixed-mode input allows the connection of analog or innovative ISM sensors, smoothing the transition from analog to digital sensor technology.

Plug and Measure functionality means measurement point start up is fast and error free.

Predictive maintenance

With tools such as the DLI, TTM and ACT, ISM technology on the M400 offers true predictive maintenance, resulting in fewer unscheduled shutdowns.

Future oriented investment

The mixed-mode input support a transition from conventional analog to advanced, digital ISM technology.

Easy handling of measuring loops

Fast commissioning and easy handling of measuring systems thanks to ISM's sensor calibration in the lab and Plug and Measure features.

Measurement parameters

pH/ORP

Dissolved oxygen

Gas phase oxygen

Conductivity

Dissolved carbon dioxide

ISM®

Key technical data for the M400 transmitter series

ISM features	Plug and Measure, advanced diagnostics tools
Power	AC (100–240 V) or DC (20–30 V)
Enclosure	IP 65
Approvals	Type 1, Type 2, Type 3: ATEX Zone2, cFMus Cl1 Div2
Current outputs	4×0/4 to 20 mA, galvanically isolated
Relays	6
Digital inputs	2
Analog inputs	1 (for pressure compensation in combination with ISM O_2 sensor)
Multi-level password protection	Yes
User interface	2 values + 2 lines, 24 characters, backlit display
Service interface	USB port

Visit for more information
www.mt.com/m400

M400 2-Wire: Reliable and Intelligent
For Hazardous Area Applications

The M400 2-wire, single-channel, multi-parameter transmitter provides highest reliability and process safety in hazardous area environments. Advanced sensor diagnostics tools available over FOUNDATION fieldbus, PROFIBUS PA or HART result in reduced operating costs and help improve productivity.

With its rugged design and approvals for hazardous area use, the M400 2-wire transmitter series provides operating assurance even in the most challenging environments. In combination with METTLER TOLEDO's advanced ISM technology, this means the M400 2-wire unit offers greater process reliability and safety in the chemical and pharmaceutical industries.

Measurement data and sensor diagnostics tools such as the Dynamic Lifetime Indicator, Adaptive Calibration Timer and Time To Maintenance can be output to control systems over FOUNDATION fieldbus, PROFIBUS PA, HART or the transmitter's second analog output.

This smart communication capability means system integration with the M400 is easily achieved, enabling more efficient maintenance and preventing unplanned shutdowns due to unforeseen sensor failure.

ISM's Plug and Measure feature minimizes the risk of installation troubles and simplifies sensor handling.

The unique mixed-mode input allows the connection of analog or innovative ISM sensors.

Outstanding reliability and safety

Thanks to the rugged design and approvals for use in hazardous areas the M400 2-wire transmitter is the best choice for operational reliability and process safety.

Predictive maintenance

ISM technology enables predictive maintenance and avoids unscheduled plant shutdowns. Advanced sensor diagnostics tools are available over FOUNDATION fieldbus, PROFIBUS PA, HART or via the transmitter's second analog output.

Communication standards

Compatibility to the standard protocols of HART, FOUNDATION fieldbus and PROFIBUS PA.

Measurement parameters

pH/ORP

Dissolved oxygen

Gas phase oxygen

Conductivity

Dissolved carbon dioxide

ISM®

HART COMMUNICATION PROTOCOL

Fieldbus Foundation

PROFIBUS

Ex

IECEx

Ex NEPSI

Key technical data for the M400 2-wire transmitter series

ISM features	Plug and Measure, advanced diagnostics tools	
Housing material	Die cast aluminum	
Enclosure	IP66, NEMA 4X	
Approvals	NEPSI Ex, ATEX/IECEx Zone1, cFMus Cl1 Div 1	
Analog inputs	1×4 to 20mA (for pressure compensation)	
4 to 20mA with HART		
Supply voltage	14–30 VDC	
Current outputs	2×4 to 20mA (loop powered), galvanically isolated	
Digital outputs	2× open collectors	
Digital inputs	2, galvanically isolated	
	FOUNDATION fieldbus	**PROFIBUS PA**
Physical interface	According to IEC 61158-2	According to IEC 61158-2
Profile	FF_H1	PA
Version	6.0.1	3.02
Supply voltage	Non hazardous area (Non-IS): 9 to 32 VDC Linear barrier: 9 to 24 VDC FISCO: 9 to 17.5 VDC	
Current	22mA	22mA

Visit for more information
www.mt.com/m400-2wire

M700: Modular and Adaptive
Seamless Integration

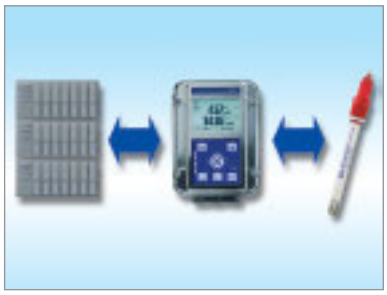
Flexible use of plug-in modules means the M700 transmitter allows combined measurements from analog and digital ISM sensors, as well as later expansion or modifications. Fieldbus communication capabilities ensure seamless integration of measurement data and sensor diagnostics into process control systems.

Up to three plug-in modules for process measurement and communication can be connected in the M700's robust stainless steel housing. Thanks to this flexible concept the M700 can be easily adapted to new application requirements.

PROFIBUS PA, FOUNDATION fieldbus and extended output modules fully integrate the M700 into all major control systems. Augmented data storage is possible with the SMARTMEDIA™ card capability which allows transfer of data to a personal computer.

The polished stainless steel version is designed for hygienic applications in the pharmaceutical, biotechnology and food and beverage sectors. A second version in a coated stainless steel enclosure is designed for applications in harsh environments, such as in the chemical, and pulp and paper industries.

Seamless integration of sensor diagnostics



M700 transmitters with ISM technology allow seamless integration of online sensor diagnostics into process control systems over PROFIBUS PA and FOUNDATION fieldbus.

Cost savings through modularity

Dual-channel measurement reduces total costs per measuring loop, for example in fermentation processes (pH/DO) or a redundant measurement in chemical processes (pH/pH).

Application oriented design

Different versions with polished and coated stainless steel enclosure designs cover different application environments.

Measurement parameters

pH/ORP

Dissolved oxygen

Gas phase oxygen

Conductivity

Dissolved carbon dioxide

ISM®

PROFIBUS

Fieldbus Foundation

Key technical data for the M700 transmitter series

ISM features	Plug and Measure, advanced diagnostics tools
Power	AC (100–240 V) or AC/DC (24V –15 %, +10 %)
Housing material	Stainless steel (polished or coated)
Enclosure	IP65
Approvals	ATEX Zone1, FM Cl1 Div2, CSA Cl1 Div1
Current outputs	2 × 0/4 to 20 mA, galvanically isolated
Relays	4
Analog inputs	1 × 0/4 to 20 mA (for pressure compensation)
Digital inputs	2, galvanically isolated
Communication	Profibus PA, FOUNDATION fieldbus
Multi-level password protection	Yes
User interface	Monochrome graphic backlit display, resolution 240 × 160 pixels

Visit for more information
www.mt.com/m700

M800: Powerful and Flexible
Touch the Future

For the highest installation flexibility, operational safety and complete control at your fingertips look no further than the M800 multi-parameter, multi-channel transmitter platform. Intuitive touchscreen operation saves time, and predictive maintenance ensures reliability and reduced maintenance.

The advantages of the M800 multi-parameter, multi-channel transmitter are clear: high flexibility, less complexity, and reduced training and inventory. M800 1-channel allows mixed mode (analog/ISM) inputs possibility.

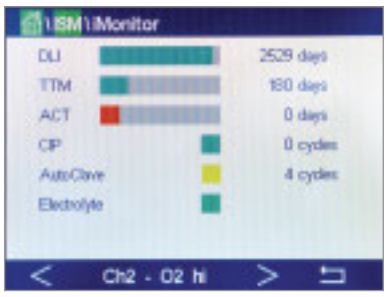
Models for two and four channels lower the cost per measurement point by providing multiple measurements from a single transmitter.

The large, button-free front panel and simple menu structure simplify use and result in time savings in all transmitter configuration and sensor maintenance tasks.

iMonitor is an "at a glance" sensor diagnostics ISM utility. It anticipates maintenance requirements based on real-time sensor performance information and tells you how to bring a sensor back to peak efficiency before measurement is affected.

With the M800 the same transmitter platform can be confidently deployed across a diverse range of applications.

Intelligent diagnostics utility



With its unique iMonitor diagnostics utility, the M800 predicts sensor maintenance and details corrective actions – before issues arise.

Intuitive touchscreen control

Touchscreen display provides simple, convenient operation, and any menu function can be reached in only three touches. Traffic light color coding means process or sensor issues are visible from a distance.

Information at a glance

A configurable display allows the highest flexibility to view the most important values. The Wizard set-up allows the definition of favorites to directly reach any menu.

Measurement parameters

pH/ORP

Dissolved oxygen

Gas phase oxygen

Conductivity

Dissolved carbon dioxide

Turbidity *

* only available on M800 1-channel

ISM®

c UL US LISTED

Key technical data for the M800 transmitter series

ISM features	Plug and Measure, advanced diagnostics tools, iMonitor		
Power	AC (100–240 V) or DC (20–30 V)		
Enclosure	IP66		
Approvals	FM Cl1 Div2		
Current outputs galvanically isolated	M800 1-channel: 4×0/4 to 20 mA	M800 2-channel: 8×0/4 to 20 mA	M800 4-channel: 8×0/4 to 20 mA
Relays	8	8	8
Analog inputs galvanically isolated	1×4 to 20 mA (for pressure compensation)		
Digital inputs	M800 1-channel: 4	M800 2-channel: 5	M800 4-channel: 6
Multi-level password protection	Yes		
User interface	Color touchscreen, 5.7", 320×240 pixels, 256 colors		
Service interface	USB port		

Visit for more information
www.mt.com/m800

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Transmitters

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Intelligent Sensor Management

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