

# System Integration

## Mettler-Toledo Ingold Integrates your Analytical Measurement into

### Open field integration to your control system via digital technology for liquid analytical measurements.

Mettler-Toledo Ingold, your leading partner for liquid analytical measurement solutions, offers you a wide variety of sensors and transmitters for various applications.

Distributed automation and control solutions based on open fieldbuses like HART®, Foundation Fieldbus and PROFIBUS® are currently the standard in many sectors of the process industry. Only fieldbuses permit full use of the functional advantages of digital communication such as improved resolution of measured values, remote diagnostics and configuration.

Proper implementation of HART®, FOUNDATION Fieldbus and PROFIBUS® requires both application and system expertise from the planning stages through instrumentation start up. Mettler-Toledo Ingold has this know-how and a world-wide network of specification, commissioning and service experts to support your facilities' needs. The strength of our product portfolio and the field support that we deliver, makes Mettler-Toledo Ingold your partner of choice.

New potential and better interaction between the different company levels up to the manufacturing execution system (MES) allows your process to be more transparent facilitating complete optimization.

### Mettler-Toledo Ingold integrates via HART® and FOUNDATION Fieldbus

Mettler-Toledo Ingold's intelligent analytical measurements are equipped with the standardized HART® and Foundation Fieldbus protocol, which will enable you to use the advantages of digital communication, including easy configuration and maintenance.

Process data can be recorded and trended in a 21 CFR Part 11 compliant format with an interface software package.

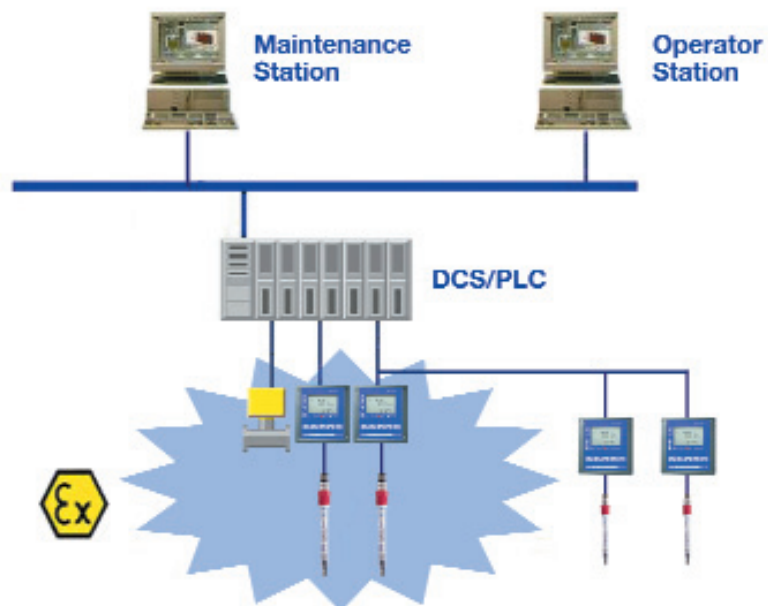
Integrated Device Descriptions: Mettler-Toledo Ingold's intelligent analytical instruments have the Device Descriptions (DD) for the HART® Communicator 275 as well as for the AMS\*.

The integrated transmitters are as follows:

- pH 2100 e
- pH 2220
- O<sub>2</sub> 4100 e
- O<sub>2</sub> 4220
- Cond 7100 e
- Cond 7220
- Cond Ind 7100 e



## HART® and Foundation Fieldbus Integration



HART® is a registered trademark of the HART® Communication Foundation  
HART® Communicator 275 and AMS are trademarks of Emerson Process Management  
\*AMS (Asset Management Solutions) is a trademark of Emerson Process Management

Further information on HART®,  
FOUNDATION Fieldbus and  
PROFIBUS®, can be viewed at:

# your Control System

In addition to the standard FOUNDATION Fieldbus implementation, we offer unique features, such as product calibration. This allows you to adjust the measured value from your control level.

## Mettler-Toledo Ingold integrates via PROFIBUS PA

PROFIBUS® is a vendor-independent, open fieldbus standard for a wide range of applications in manufacturing and process automation. Vendor independence and openness are ensured by the international standards EN 50170, EN 50254 and IEC 61158.

Only PROFIBUS® offers consistent automation solutions for all areas of a company. This has been the case for many years with more than three million nodes proven in practical application. Through its continuously enhancing technical developments, PROFIBUS® is still the industrial communication system prepared for the future.

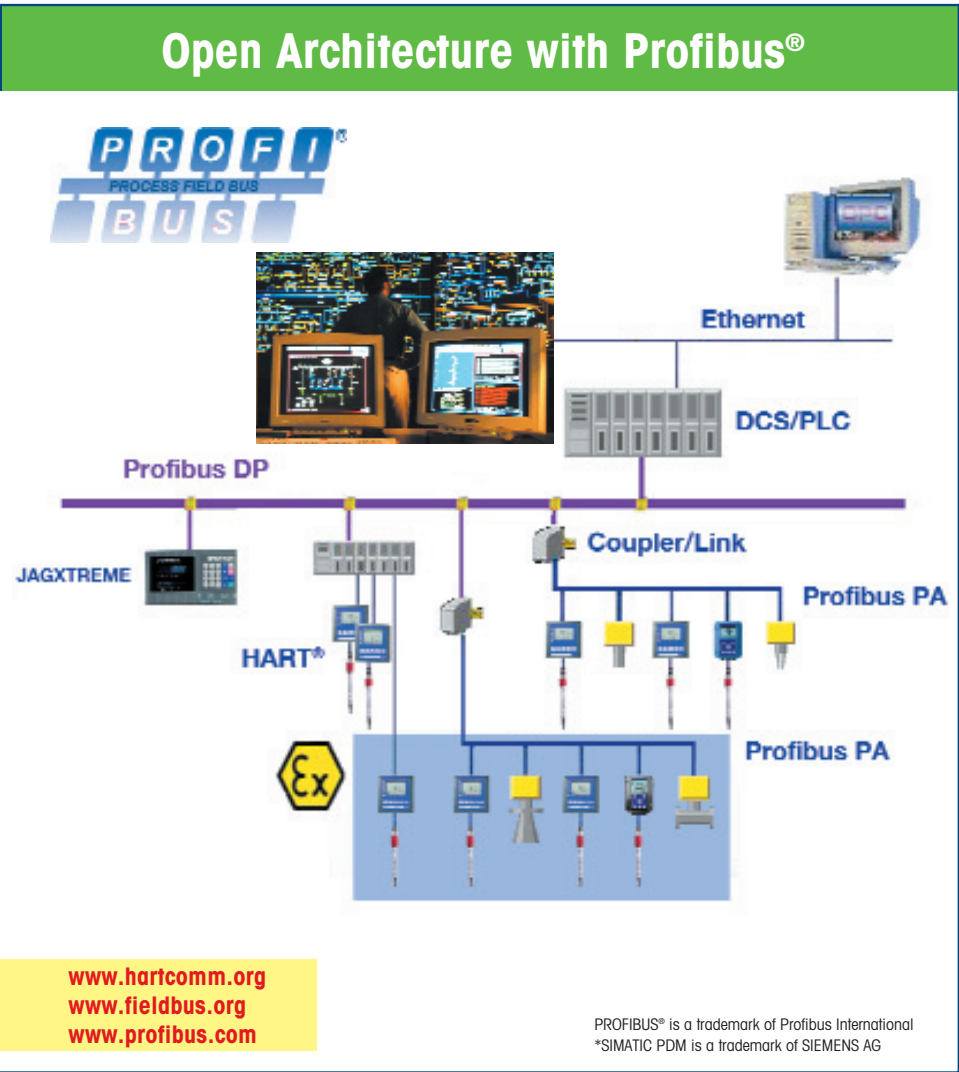
PROFIBUS PA (EN 50 170 P4) was developed from PROFIBUS DP with two special features for process automation. It allows the power supply of the transmitter via a 2-wire line which is also possible in an intrinsically safe area.

The communication method of PROFIBUS PA is tailored to the requirements of the process industry. The standardized communications services guarantee interoperability between field devices from different vendors and remote modification of field device parameters during operation.

Mettler-Toledo Ingold is integrated in the device library of the SIMATIC PDM2 (Process Device Manager) system from SIEMENS.

The integrated transmitters are as follows:

- pH 2100e
- O<sub>2</sub> 4100e
- Cond 7100e
- Cond Ind 7100e
- M 700



[www.hartcomm.org](http://www.hartcomm.org)  
[www.fieldbus.org](http://www.fieldbus.org)  
[www.profibus.com](http://www.profibus.com)

PROFIBUS® is a trademark of Profibus International  
 \*SIMATIC PDM is a trademark of SIEMENS AG