ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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Find the *Mettler Toledo InPro 3250I/SG/120* at our website: *Click HERE*

INGOLD
Leading Process Analytics

- Wide application range
- Highly accurate, long-life electrodes
- Highest standards of hygiene and safety

pH/ORP



Low-maintenance pH electrodes and systems:
Reduce your overall process costs!

METTLER TOLEDO

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We offer the equipment for the complete pH loop.



Transmitters

Some outstanding benefits to be gained by using METTLER TOLEDO transmitters:

- Easy to install and with user-friendly interface
- Choice of versions to satisfy most needs for system integration and implementation (2- or 4-wires)
- Different communications interface options such as HART®, FOUNDATION™ Fieldbus or PROFIBUS® PA
- Customized certificates for your process: ATEX/FM
- Sensor diagnostics and cleaning function (wash contact) available



Automated pH measurement

Some outstanding benefits of METTLER TOLEDO EasyClean systems at a glance:

- Automated procedures reduce costs surrounding maintenance of the measuring point (Cleaning and calibration)
- Regular periodic cleaning of the electrode increases its serviceable life and improves measurement accuracy
- Continuous system monitoring results in greater measurement reliability



Electrodes

Some outstanding benefits of METTLER TOLEDO pH electrodes at a glance:

- Different kinds of electrodes for highest customer satisfaction: low maintenance electrodes, compact design electrodes (PVDF body), problem solver liquid electrolyte electrodes, as well as non-glass electrodes for food applications etc.



Housings

Some outstanding benefits of METTLER TOLEDO pH housings at a glance:

- Static, retractable or flow-through housings
- Easy mounting and installation with choice of various process adaption methods
- Low maintenance effort and minimum process downtimes
- Meet strictest requirements on reliability and sterility, designed for CIP procedures (Cleaning In Place)
- Customized certificates for your process: ATEX/FM, EHEDG
- Our TriLock™ system provides protection against unintentional release of process medium

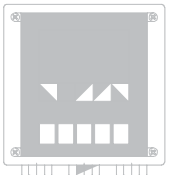
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Reliable, long-lasting pH measuring equipment.



pH measurement in the biotech and pharma industries.

METTLER TOLEDO follows in the tradition of INGOLD by continuing to provide innovative new products and systems based on decades of accumulated knowledge and experience in industrial measurement technology.





Chemical industry with pH measuring systems.

High accuracy and reliable measurement values.

The advanced technology and design of our pH electrodes and housings ensure exact and stable measurement values in every application, whether in biotechnology, the food industry or the most challenging chemical processes.

Save time and money with low-maintenance electrodes.

pH electrodes with gel or solid polymer electrolytes are outstanding for their long service life and need practically zero maintenance. They greatly reduce costly process downtimes.



Pulp and paper industry with pH measuring systems.

Enhanced operational efficiency with retractable housings.

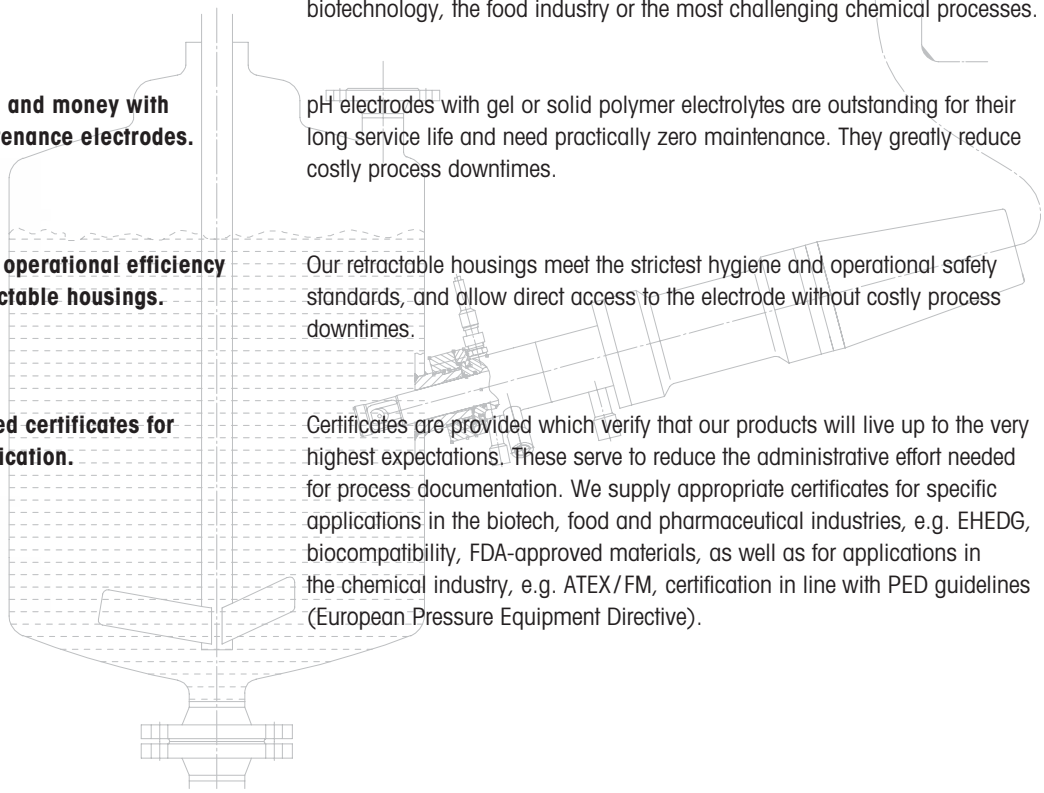
Our retractable housings meet the strictest hygiene and operational safety standards, and allow direct access to the electrode without costly process downtimes.

Customized certificates for each application.

Certificates are provided which verify that our products will live up to the very highest expectations. These serve to reduce the administrative effort needed for process documentation. We supply appropriate certificates for specific applications in the biotech, food and pharmaceutical industries, e.g. EHEDG, biocompatibility, FDA-approved materials, as well as for applications in the chemical industry, e.g. ATEX/FM, certification in line with PED guidelines (European Pressure Equipment Directive).



pH measurement in the food processing industry.



CERTIFIED EHEDG TYPE EL SEPTEMBER 2002

FDA

Ex

FM APPROVED

Photos:
Karl-Heinz Hug, Switzerland (bottom)

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Biotechnology, food and pharmaceutical industries.

When measurement accuracy is vital!

A For processes operating at medium to high pressures: InPro 3030 or InPro 3100

- Specially developed for bioreactors with pressures up to 6 bar overpressure
- No clogging of diaphragm in media containing sulfides or amino acids thanks to incorporation of our patented silver-ion trap
- Fully autoclavable or in-situ sterilizable at temperatures of up to 140 °C

NEW!
- Possibility to install the electrode type InPro 3100 UD in upside down position through bottom/floor of vessel.

B For processes at low to medium operating pressures: DPAS or InPro 3253

NEW!
- The InPro 3253 incorporates a newly developed pH-sensitive glass for bio-technological applications, minimizing zero point shift following sterilization
- Highest precision at low to medium operating pressures, due to self-cleaning action at the diaphragm

NEW!
- Designed for use at process pressures up to 4 bar overpressure (InPro 3253)
- Fully autoclavable or in-situ sterilizable (sterilization at up to 140 °C possible)
- Greatest degree of reliability of measurement values guaranteed by the patented silver-ion trap, built-in temperature sensor and Vario Pin® (VP) connector
- Measurement of ORP, enhanced diagnostics and shielding against earth potentials are optional extras for the InPro 3253 („Solution Ground", InPro 3253 SG)

MaxCert™
- Conformance with all relevant hygiene and safety regulations confirmed through customized package of certificates (MaxCert™) for InPro 3253 electrodes

C For industrial food processing applications: InPro 3300 and LoT 406-M6-DXK

- Elimination of risk of glass breakage through use of the glass-free pH sensor InPro 3300

MaxCert™
- Customized package of certificates: MaxCert™ with EHEDG und 3A certificates, verification of use of FDA-compatible materials for InPro 3300
- Rapid and reliable pH measurement in meat and dairy products with use of puncture electrode LoT 406-M6-DXK



New!
InPro 3253

New!
InPro 3100 UD

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Low-maintenance electrodes for challenging processes.

	InPro 3030	InPro 3100	DPAS	InPro 3253 NEW!
Bio processes				
Culture propagation and nutrient solutions	–	–	•	•
Fermentation (production reactors)	•	•	•	•
Downstream processing	–	–	•	•
Food processing (e.g. in dairies)	•	•	•	•
Specifications:				
pH range	0 … 14	0 … 14	0 … 12	0 … 12
Temperature range °C	0 … 140	0 … 140	0 … 130	0 … 140
Temperature range °F	32 … 284	32 … 284	32 … 266	32 … 284
Pressure range in bar (overpressure)	0 … 6	0 … 6	0 … 2,5	0 … 4
Pressure range in psi (overpressure)	0 … 87	0 … 87	0 … 36	0 … 58
Temperature sensor	–	•	–	•
Autoclavable, sterilizable	•	•	•	•
VP connector	–	•	–	•
EEx certificate: ATEX and FM	–	•	–	•
EHEDG certificate	–	–	–	•
Biocompatibility certificate	–	–	–	•
Redox version available	–	–	•	•
Pt auxiliary electrode (Solution Ground, SG)	–	–	–	•
Upside-down version	–	• NEW!	–	–
		A		B

	InPro 3300	LoT-406-M6-DXK
Food processes		
Dairies, breweries	•	–
Puncture electrode for foodstuffs	–	•
Specifications:		
pH range	0 … 14	2 … 11
Temperature range °C	0 … 130	0 … 80
Temperature range °F	32 … 266	32 … 176
Pressure range in bar (overpressure)	0 … 6	n.a.
Pressure range in psi (overpressure)	0 … 87	n.a.
Temperature sensor	•	–
Autoclavable, sterilizable	•	–
VP connector	•	–
EHEDG certificate	•	–
		C



InPro 3030 | InPro 3100 | DPAS | InPro 3300 | LoT-406-M6-DXK

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Low-maintenance electrodes with extended lifetime.

	DPA	InPro 3250 NEW!	DXK	InPro 4250	InPro 4501	InPro 4550	InPro 4800
Chemical processes							
Chlor-alkali processes	–	–	–	–	–	–	•
Dyes and pigments	•	•	•	•	•	•	•
Pulp and paper, bleaching tower	–	–	–	–	–	–	•
Paper, head box paper machine	–	–	•	•	•	•	•
Sugar processing	–	–	–	•	–	–	•
Intermediates	–	–	–	•	–	•	•
Fertilizer	–	–	•	•	•	•	–
Starch	–	–	–	•	–	–	–
Gas scrubbers	–	–	–	•	–	–	•
Specifications:							
pH range	0 … 14	0 … 14	2 … 14	0 … 14	1 … 14	0 … 14	0 … 14
Temperature range °C	0 … 100	0 … 140	0 … 110	0 … 130	0 … 100	0 … 130	–5 … 130
Temperature range °F	32 … 212	32 … 284	32 … 230	32 … 266	32 … 212	32 … 266	23 … 266
Pressure range in bar	0 … 2,5	0 … 4	16 (25 °C) 6 (100 °C)	16 (25 °C) 8 (130 °C)	0 … 7	0 … 8	13
Pressure range in psi	0 … 36	0 … 58	232 (77 °F) 87 (212 °F)	232 (77 °F) 116 (266 °F)	0 … 100	0 … 116	188
Temperature sensor	–	•	–	•	•	•	•
Autoclavable, sterilizable	–	–	–	–	–	–	–
VP connector	–	•	–	•	•	•	•
EEx certificate	•	•	–	•	–	•	•
EHEDG certificate	–	•	–	–	–	–	–
Redox version available	•	•	•	• NEW!	–	–	• NEW!
Diagnostics option	–	•	–	• NEW!	•	•	•
Shielding against extraneous potentials	–	•	–	• NEW!	•	•	•
		D			E		F

	InPro 4010
Industrial effluents	
Wastewater treatment	•
Specifications:	
pH range	2 … 12
Temperature range °C	0 … 60
Temperature range °F	32 … 140
Pressure range in bar	2 (60 °C)
Pressure range in psi	29 (140 °F)
Temperature sensor	option
Autoclavable, sterilisable	–
VP connector	•

InPro 4250 and InPro 4501 are alternatives for use in industrial wastewater. Specification: see table at top.


DPA


InPro 3250


InPro 4250

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Chemical industry and industrial effluents.

When strong resistance to chemicals and process pressures is crucial.

D Prepressurized electrodes for accurate measurements: DPA or InPro 3250

- Highest accuracy due to constant self-cleaning action at the diaphragm

NEW!

- Designed for use at process pressures up to 4 bar overpressure (InPro 3250)
- Our patented silver-ion trap prevents any clogging of the diaphragm in media containing sulfides or amino acids
- Measurement of ORP, enhanced diagnostics and shielding against earth potentials are optional extras for the InPro 3250 („Solution Ground", InPro 3250 SG)

MaxCert™

- Conformance with all relative safety regulations in the chemical industry confirmed through customized package of certificates (MaxCert™) for InPro 3250 electrodes

E For highly demanding chemical process applications: DXK, InPro 4250, InPro 4501 or InPro 4550

- Solid polymer reference system to minimize effort and cost of maintenance
- Open aperture junction resistant to clogging permits measurement in highly contaminated media
- Electrodes suitable for particularly demanding chemical processes, e.g. at high operating pressures, in strongly contaminated sulfide-bearing media, or in suspensions and emulsions

NEW!

- Measurement of ORP, enhanced diagnostics and shielding against earth potentials are optional extras for the InPro 4250 („Solution Ground", InPro 4250 SG)

F The top-class electrode for especially challenging chemical processes: InPro 4800

- Extended-life electrode reduces costs involved for maintenance and replacement
- Reliable measurement under the harshest process conditions, even at high temperatures
- The long, pressure-compensated diffusion path permits use in particularly high-pressure applications
- Enhanced diagnostics and shielding against earth potentials are optional extras („Solution Ground", InPro 4801 SG)
- In the flat membrane version, the InPro 4801 SG is particularly resistant to wear and tear in abrasive media
- Enhanced measurement accuracy due to the built-in temperature sensor and Vario Pin® (VP) connector

NEW!

- Measurement of ORP, enhanced diagnostics and shielding against earth potentials are optional extras for the InPro 4800 („Solution Ground", InPro 4800SG)

In addition, InPro 3250, InPro 4250 and InPro 4800 electrodes fulfill all safety regulations relative to hazardous areas (ATEX, FM), and are certified in line with the European Pressure Equipment Directive guidelines (PED).



InPro 4250SG | InPro 4800 | InPro 4800SG | InPro 4501 | InPro 4550

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Our Service: professional and customer-oriented.

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, CO_2, and turbidity measurements
- A wide variety of static and retractable housings, cables and dedicated accessories as well auxiliary systems such as automatic sensor cleaning and calibration devices
- We have a comprehensive line of transmitters to meet your most demanding requirements, including compatibility with sophisticated, modern communication and automation systems

ServiceXXL® Tailored Services

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.

Technical documentations (TD) for low-maintenance electrodes:
With detailed product information and ordering numbers

TD for InPro 3250 and InPro 3250 SG	Order no. 52 002 639
TD for InPro 4250	Order no. 52 002 190
TD for InPro 4800	Order no. 52 002 193
TD for InPro 3300	Order no. 52 002 262

For technical data sheets of other electrodes please 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

CE

ISO 9001 certified ISO 14001 certified

Management System certified according to ISO 9001 / ISO 14001



Turbidity
- Low to medium turbidity
- Medium to high turbidity



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



Housings
- For InFit stationary housing series
- For Ø 12 mm electrodes/sensors
- For liquid and gel electrolyte electrodes
- InTrac® series



Cleaning & calibration systems
- EasyClean family

Sales and service:

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Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

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