

iSense

Maximum Performance of ISM Sensors



ISM®

**21 CFR Part 11
& Annex 11 ready**

iSense CFR is technically compliant with 21 CFR Part 11 and EudraLex Volume 4 Annex 11.

iSense offers a unique means to optimize the performance of pH electrodes, oxygen and carbon dioxide sensors for enhanced reliability and process safety. Simply connect your ISM sensor via USB or Bluetooth to your PC and get access to various intuitive analysis, calibration and documentation applications. Pre-calibrate your ISM sensor with the accuracy of lab conditions and assess the sensor state with real-time diagnostic information. This allows you to decide instantly whether to re-use or discard a sensor. Calibration information is collected, managed and analyzed efficiently and documented consistently to satisfy regulatory requirements.

Specifications

Performance

Measurement parameters	pH	all digital ISM sensors
	Oxygen	all digital ISM sensors
	CO₂	InPro 5000 i

pH calibration	1-point, 2-point, 3-point, process
DO calibration for amp. sensors	1-point, process
DO calibration for optical sensors	1-point, 2-point, scaling
CO ₂ (InPro 5000 i) calibration	1-point, 2-point, process
M100 SM settings	Yes
Sensor field calibration dataset	Yes
Sensor database	Yes
Database backup	Yes
Key performance indicators (KPI)	Yes

Recommended PC requirements

Processor	iCore™
RAM	4 GB
Screen resolution	1280 × 1024 or higher
Hard disk	250 M B available space
Operating system	MS-Windows 7/8/8.10 (at least XP SP3 or later)
Interface	USB and/or Bluetooth™ (depending on the accessory)

Features Overview

- Automatic PDF protocols with sensor registration/calibration/adjustments/deactivation
- Protocols of field calibration
- Full sensor history
- Database export for further analysis

Other Highlights

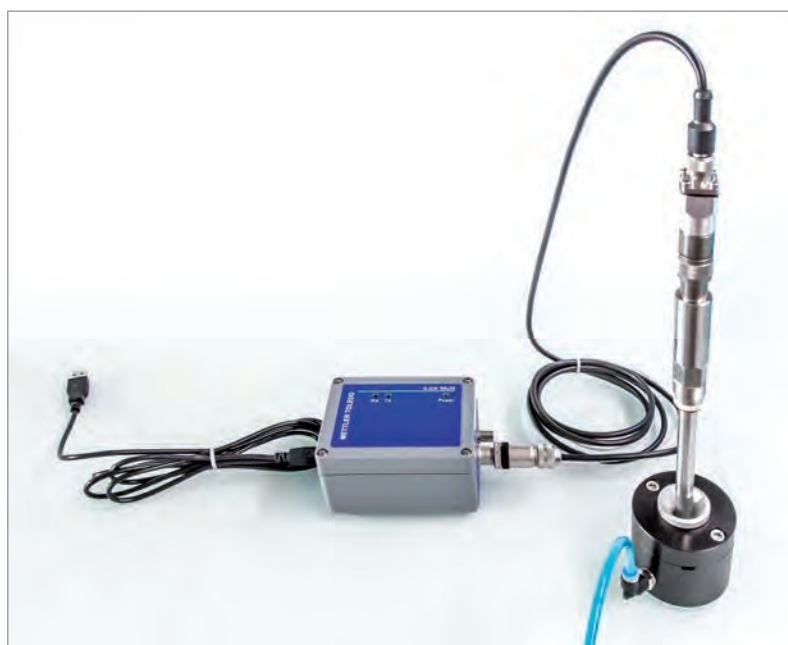
- Intuitive Windows™ interface
- Early detection of worn-out sensors
- Comprehensive, at a glance sensor status analysis

► www.mt.com/iSense

Ordering Information

Description	Order Number
iSense	30 130 614
iSense CFR	30 283 620

Accessories	Order Number
iLink Multi (with integrated barometer and hygrometer)	30 130 631
iLink Multi Cable/Set oDO (RS485) (required cable set for optical oxygen sensors connecting with iLink Multi)	30 355 582
AK9/1m/BNC-50 (required cable set for pH, CO ₂ and amperometric oxygen sensors connecting with iLink Multi)	59 902 168
CalBox with temperature sensor for iLink Multi	52 300 400
iSense BT Dongle (wireless connection to M100 SM and J-Box BT)	30 371 387
Cable DS AK9-RJ12 (connects 1-wire sensors to iSense)	52 300 383
iLink RS485 VP	30 014 134
iLink RS485	52 300 399
iLink 1-wire BT (Bluetooth dongle with rechargeable battery)	30 126 791



iLink Multi is a universal device for connecting digital ISM sensors (1-wire; RS485) to a PC/laptop running iSense software. When calibrating an optical DO sensor with the iLink Multi, calibration parameters are captured automatically using the built-in, physical parameter sensors.



Did You Know

iSense Mobile allows you to check sensor status or conduct calibrations from the convenience of your phone. Download is free at Google Play or iTunes.

► www.mt.com/ism-accessories

Learn more about iSense, iSense Mobile and its accessories.

Verification Kits

Simulating Sensors and Validating Transmitters



The pH, O₂ and the CO₂ Verification Kits are sets of five different service tools that allow the simulation of reading values of pH, O₂ and the CO₂ ISM sensors with predefined measuring values and errors (not changeable by the user). Each tool corresponds to a METTLER TOLEDO ISM sensor and delivers a complete set of data information. They can also be used for control of loop and transmitter settings, as control of the transmitter's temperature compensation and general troubleshooting. Each verification kit is provided with a certificate.

Specifications

ISM Verification Kits

ISM Simulator pH Kit	pH 4, pH 7, toggle, ERR1, ERR2
ISM Simulator O ₂ (InPro 6850i) Kit	Zero, Air, toggle, ERR1, ERR2
ISM Simulator O ₂ ppb (InPro 6900i/InPro 6950i) Kit	Zero, Air, toggle, ERR1, ERR2
ISM Simulator CO ₂ (InPro 5000i) Kit	15 mbar, 950mbar, toggle, ERR1, ERR2
Optical O ₂ (InPro 6860i, InPro 6870i, InPro 6960i, InPro 6970i, THO ODO) Simulator	Zero, Air 1, Air 2, toggle, ERR1, ERR2

pH Analog Verification Kits

pH Simulator 112	pH 4, pH 7, pH 9
VP Simulator	20 °C (Pt100 or Pt1000), 50 °C (Pt100 or Pt1000)

Certificates and Approvals

ISM pH	IECEX/ATEX Ex ia IIC T6/T5/T4/T3 Ga/Gb FM: IS/I, II, III/1/ABCDEFG/T6
Amperometric O ₂	IECEX/ATEX Ex ia IIC T6/T5/T4/T3 Ga/Gb IECEX/ATEX Ex ia IIIC T69 °C/T81 °C/T109 °C/ T161 °C Da/Db FM: IS/I, II, III/1/ABCDEFG/T6

Features Overview

- Tool for verification of a measuring system
- Service tool for quick checks
- Control of transmitter settings
- Troubleshooting

Ordering Information

ISM Verification Kits	Order Number
ISM Simulator pH Kit	52 300 410
ISM Simulator O ₂ (InPro 6850 i) Kit	52 300 416
ISM Simulator O ₂ ppb (InPro 6900 i) Kit	52 300 422
ISM Simulator O ₂ Trace (InPro 6950 i) Kit	52 300 428
ISM Simulator CO ₂ (InPro 5000 i) Kit	30 031 035
Optical O ₂ (InPro 6860 i, InPro 6870 i, InPro 6960 i, InPro 6970 i, THO ODO) Simulator	30 404 694

pH Analog Verification Kits	Order Number
pH Simulator 112	59 906 431
VP Simulator	52 120 939



Did You Know

The ISM pH, oxygen and CO₂ service tools are unique products that can control and verify loop and transmitter settings. The simulators generate a comprehensive data-set of non-modifiable ISM parameters.



Optical O₂ Simulator



pH Analog Verification Kits: Combining the pH simulator 112 ① with the VP simulator ② both pH and Temperature signals can be simulated to check the automatic temperature compensation capability of the transmitter.