Compact Sensor-Mount Transmitter

ISM for Benchtop Biocontrollers

pH **ORP**
% CO₂ **% Air**
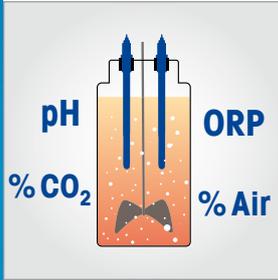
Robust process control
Cell culturing runs more reliably when digital sensors are integrated into control loops. Further, ISM features such as Plug and Measure and predictive diagnostics become accessible on the biocontroller.
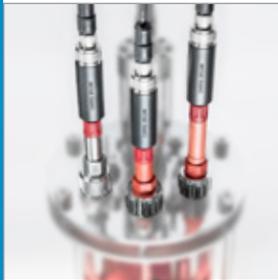
Scalable ISM solution
The compact size of the M80 SM transmitter enables its use on benchtop bioreactors and therefore deploys the advantages of ISM sensors for R & D and down-scaling applications.

Less configuration effort
The need of sensor configuration is eliminated when a digital sensor is replaced by a new one because the M80 SM stores installation-point specific configuration data.

Environmentally friendly
pH sensors must be disposed of and replaced by new ones on a regular basis. Electronic waste is reduced by up to 60 % compared to digital sensors with permanently built-in transmitters.

Modbus over RS485 **ISM®**

M80 SM Transmitter
Easy to integrate

The M80 Sensor-Mount (SM) transmitter is a compact, single-channel, multi-parameter transmitter designed especially for benchtop biocontroller manufacturers who want to take advantage of Intelligent Sensor Management (ISM®) features on their SCADA systems.

The small footprint of the M80 SM allows mounting on ISM sensors used in bioreactors with a typical volume of 1 – 20 liters.

A Modbus RTU interface enables straightforward integration of sensor measurement data, diagnostic information, and calibration routines into the biocontroller. Visualization of ISM features on the controller's graphical user interface increases transparency of sensor models and health status.

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Key technical data for the M80 Sensor Mount Transmitter

ISM functionality	Plug and Measure, Dynamic Lifetime Indicator, Adaptive Calibration Timer, Time to Maintenance
Power supply	24 VDC (min. 100 mA)
Operating temperature	− 15 to + 60 °C (5 to 140 °F)
Relative humidity	5 … 95 % rH (non-condensing)
Mounting	AK9 connector on head of 1-wire sensor
Cable connection	M12 / 5-pin for RS485 interface and power supply
Communication	Modbus RTU protocol
Configuration	Via M80 SM transmitter configuration tool PC software and transmitter configuration box
Dimensions	Height: 94 mm (3.7") Maximum diameter: 22 mm (0.87")
Sensor compatibility	ISM 1-wire pH/ORP, amperometric DO, dissolved CO_2, and 4-e conductivity sensors
Protection class	IP 65

Ordering information

Designation	Order Nr.
M80 SM transmitter	30 530 566
Transmitter configuration box (cables included)	30 530 567
5-pin data cable 2 m (6.6 ft)	52 300 379
5-pin data cable 5 m (16.4 ft)	52 300 380
5-pin data cable 10 m (32.8 ft)	52 300 381

For more information, go to:
▶ **www.mt.com/M80**

ø 22.0 mm
ø 0.87"

94.0 mm / 3.7"

53.0 mm / 2.1"

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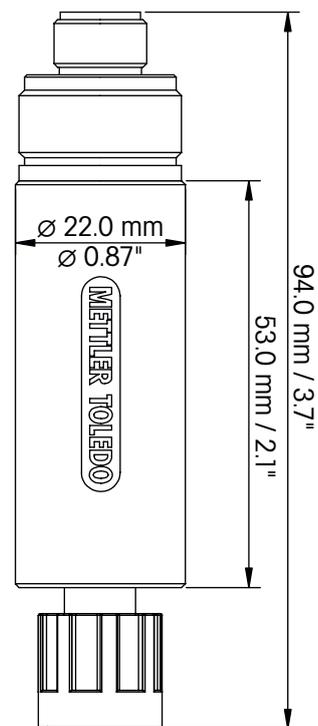
Technical drawing of the M80 SM

Recommended ISM sensors
InPro 3253i, InPro 6850i,
InPro 5000i, InPro 7100i

www.mt.com/pro

For more information

CE

ISO 9001 certified
ISO 14001 certified

Management System
certified according to
ISO 9001 / ISO 14001