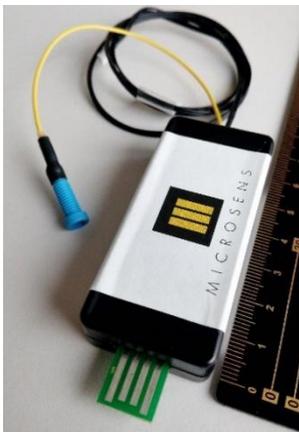


MSFET 3330-2 pH Measurement Kit

Content of the kit:

MSFET-USB Interface

(1x)



Packaged MSFET3330-2 pH sensing element

(3x)



MSREF Mini Ag/AgCl reference electrode

(2x)



MSFET-USB interface: Key Features

- Small packaging (40mm x 70mm)
- USB powered (galvanic isolation of in- and outputs)
- Digital sensor output
- pH calibration function
- Graphical user interface (Java)

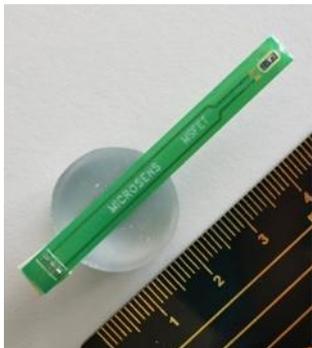
Applications

- Laboratory
- Water quality monitoring
- Environment control
- Security and industrial process control

Characteristics

- Temperature range: 0°C ... 80°C
- USB powered (galvanic isolation)
- pH calibration functionality
- Digital output of sensor output (raw data) and measured pH

MSFET 3330-2 pH Sensor: Key Features



Base structure

- Sensor base materials: Silicon, Polysilicon
- Technology: 4" planar CMOS process
- pH-sensitive material: Ta₂O₅



Sensor dimensions:

	Width	Length	Height	Unit
Chip dimensions	1.2	3	0.3	mm
Packaged sensor	5	50	1 - 2	mm

pH Sensor Characteristics:

	min	typical	max	Unit
V _{ds}		0.5		V
I _{ds}	0.05	0.1		mA
Sensitivity (ΔVs/pH)	-50	-55.0	-59.2	mV/pH

pH Sensor Connections:



MSREF Mini Ag/AgCl reference electrode: Key Features

- Solid state Ag/AgCl reference electrode
- No storage in KCl buffer required
- Very small size
- Long lifetime

MSREF1:



- Short hydration time
- Sensitive to Cl⁻ content of solution

MSREF2:



- Solid-state electrolyte layer
- Stable in varying Cl⁻ content
- Hydration time 6-24h