

# MSFET-3330-2 pH sensor

MICROSENS Ion Sensitive Field Effect transistor (ISFET)  
with Ta<sub>2</sub>O<sub>5</sub> gate

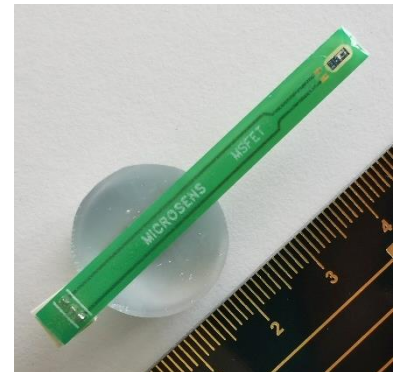
## Sensor Description



- ISFET devices are realized with microelectronic technology compatible with CMOS processes.
- Ta<sub>2</sub>O<sub>5</sub> insulating gate ISFET devices measure the pH value in a wide range from basic to acidic solutions
- The sensitive element is a Field Effect Transistor, whose metal gate is replaced by a Reference Electrode and the solution of interest.

## Packaging and Dimensions

- Chip size: 3 mm x 1.2 mm
- Gate area: ~ 500 μm x 200 μm
- Module dimension: 50 mm x 5 mm x 2 mm



## Key Features and Applications

### Applications

- Water Quality monitoring
- Environment control
- Security, industrial process control

### Key Features

- Ta<sub>2</sub>O<sub>5</sub> Insulating gate
- Single supply, low power, small size
- pH range: pH1 ... pH12
- Typical pH sensitivity: -55mV/pH
- Response time: <1s (flow through cell setting)