In development

Single-Use Leak Detection Sensor

FUJIKURA COMPOSITES

No external power is required Generates power by itself

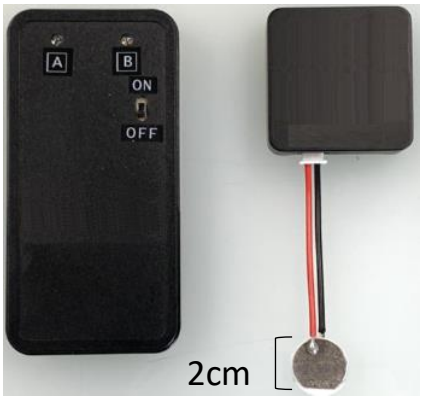
- No electrical wire is required
- A few drops of water can generate power

Applications

- Medical Application
- Analysis Equipment
- Industrial Use
- Nursing-care Field

Sensor image

Standard size



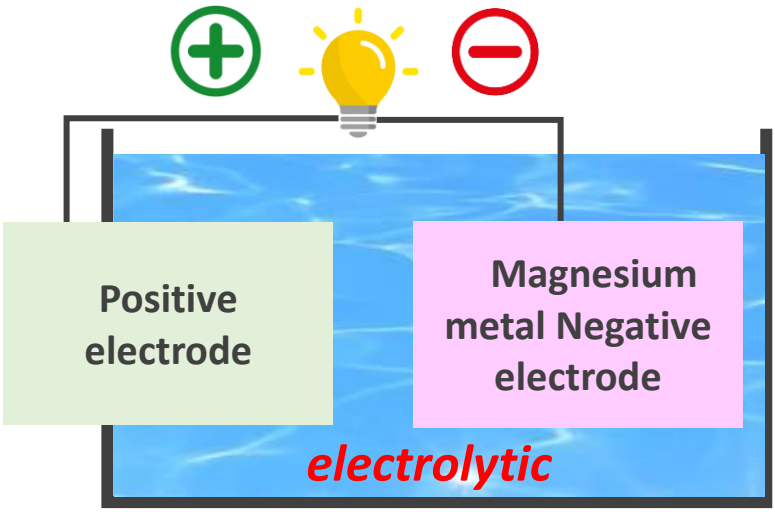
Receiver

Transmitter

sensor

Principle

Atmospheric Air



- Medical Use - Concept

Blood Leakage or Medicine Leakage on Medical site
Considerations for Diapers nursing Babies or Adults

- Non-Medical Use -

Water Leak Detection that could be seriousincidents for buildings, pipes, or all kinds of machineries or equipment.

■ ■ Electrochemical reactions ■ ■

【Anode】

$Mg \rightarrow Mg^{2+} + 2e^-$

【Cathode】

$1/2O_2 + H_2O + 2e^- \rightarrow 2OH$

【Overall reaction】

$Mg + 1/2O_2 + H_2O \rightarrow Mg(OH)_2\downarrow$

The sensor generates electricity by electrochemical reaction with magnesium using the liquid to be detected as the electrolyte.

< Contact >

FUJIKURA COMPOSITES
GOTANDA JP BUILDING 4F
8-4-13 Nishigotanda,Shinagawa-ku, Tokyo, Japan 141-0031
TEL. +81-3-5747-9223
FAX. +81-3-5747-9217

Web: https://www.fujikura-control.com/english
Founded: 1901
Sales: $281 million US dollar (2023 March, consolidated)
ISO certified: 9001, 14001, 13485
E-mail: seigyo.toiawase.en@fc.fujikura.co.jp