

GEOLOGICAL, GEOPHYSICAL,
GEOTECHNICAL SERVICES AND
INSTRUMENTS

OYO

Remote Monitoring System for Tiltmeter

i-SENSOR² Tilt



MODEL-4781

i-SENSOR² Tilt



MODEL-4782

i-SENSOR² Tilt-node

< Abstract >

i-SENSOR2 (intelligent-SENSOR2) Tilt is consisted of a tilt sensor, a data logger, a transmission module and a wireless-link. Monitoring data is aggregated from sub [Tilt-node] to main [Tilt] and the aggregated data is transferred to customers using GSM/GPRS.

Splash-proof housing and lithium batteries / C cell batteries are adopted and a storage box is not necessary. Installation work becomes easier and it leads to saving cost by reducing work load and time.

This has a warning alert function and a self-judgment function and it is available to prepare /develop an early warning system for preventing natural disasters.

< Features >

- 2 axes (X axis, Y axis) of tilt sensor are contained.
- It is available high-resolution monitoring (resolution: 0.001°).
- 1 main [Tilt] can be connected up to 10 subs [Tilt-node].
- Wireless-link is correctly synchronized time and sent/received data with requisite minimum time leads to low power consumption.
- Mesh type wireless-link which is a redundant pathway function is adopted to avoid missing data.
- Measurement and data transmission interval are automatically changeable by setting threshold on the self-judgment functions.

< Specification >

○ Tilt Sensor

Measurement direction : 2 axes (X axis, Y axis)
 Measurement range : $\pm 10^\circ$
 Display resolution : 0.001°
 Accuracy : $\pm 0.5\%$ FS
 ($\pm 0.05^\circ$ at 25°C)

○ Communication (mobile phone communication) [Tilt]

Packet Communication : GSM/GPRS
 Time & position : GPS

○ Wireless-link [Tilt], [Tilt-node]

Wireless-link : 2.4 GHz, Smart Mesh IP
 Connectable number of wireless-link : Up to 10 units
 Distance of link : max. 150 m
 (Line-of-sight distance in case of
 2 m height of antenna)

○ Interface

USB : USB2.0 \times 1 port
 (For conversion port between USB and RS232C)
 Memory card : SD-card, SDHC-card
 Communication card : SIM-card (GSM/GPRS)

○ Data Logger

Data storage capacity : approx. 28,000 data

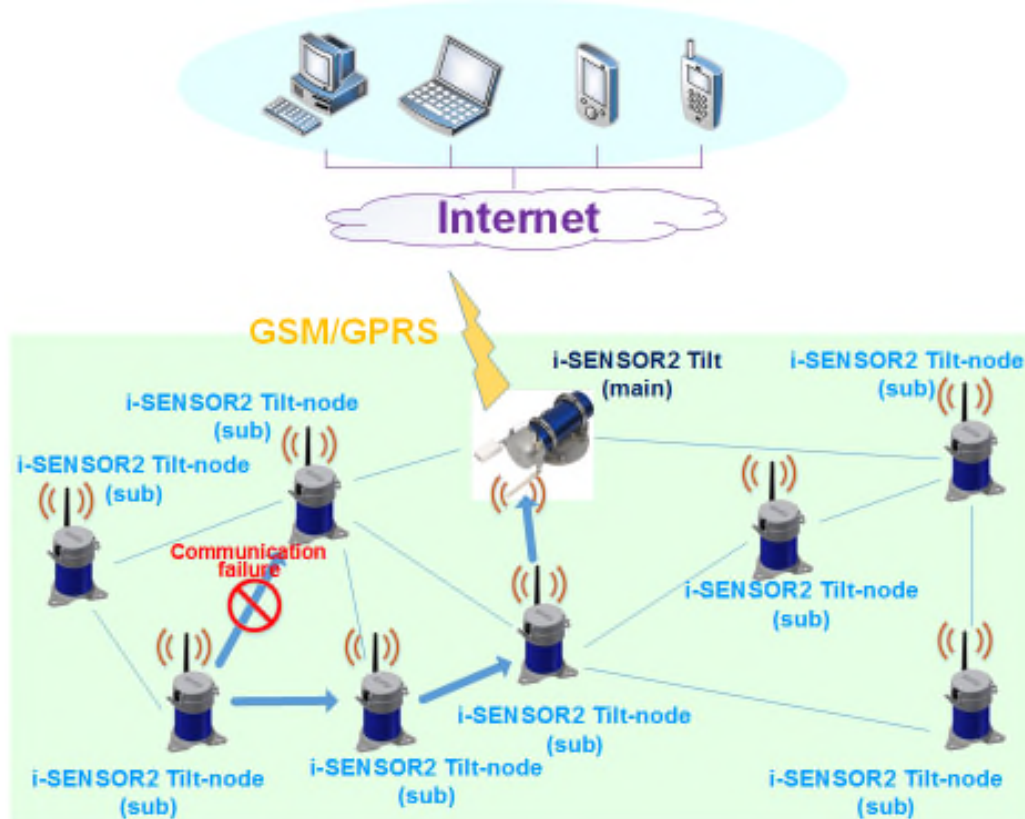
○ Housing

Protection grade : Splash-proof

○ Outer Dimension

Outer size [Tilt] : $\phi 85 \times 220$ mm
 (Excluding projections)
 [Tilt-node] : $\phi 85 \times 125$ mm
 (Excluding projections)
 Weight [Tilt] : approx. 2 kg
 (Excluding internal battery)
 [Tilt-node] : approx. 1 kg
 (Excluding internal battery)

[Image of Configuration: communication & wireless-link path]



OYO
 oyo corporation



JQA-2772

Color, design and specifications are subject to change without notice

● Instruments & Solutions Division
 43 Miyukigaoka, Tsukuba, Ibaraki, 305-0841 Japan
 Phone: +81-(0)298-51-5078, Fax: +81-(0)298-51-7290
 e-mail: seihin@oyo.jp

● Sigmatic, S.A. de C.V.
 Erasmo Castellanos Quinto 444,
 Colonia Educación, Ciudad de México, C.P. 04400
 Teléfono: 55.5658.2997 & 55.5554.9657

■ Your representative


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 www.sigmetric.com