

# GEKO

## Crack Meter



Geko, together with IceTag Cube reader, provides a wireless solution of monitoring and data-logging for structural applications like measurement of small cracks, deformations monitoring within tunnels, structural health/long term monitoring.

In particular, Geko sensor tag allows a contextual measurement and logging of cracks and temperature in real time in order to get correlations between the displacements trend and the temperature periodic variations. Therefore, information may be obtained on the elasto-plastic movements of these cracks that will be useful for the local structural diagnosis.

Data are acquired, logged and transmitted to the user's PC through the small USB IceTag Cube reader. Tertium TAG Software permits a complete configuration of the tag (acquisition and logging time, wake-up time for saving battery life,..), real time reading, data storage download.

Thanks to the easy installation more Geko tags can be placed on other portions of the building so as to obtain a complete monitoring of the crack movements. Using Tertium TAG Software and only one Cube reader the user can easily configure and download data of groups of Geko tags.

# GEKO



## INTERNAL DEVICES & SENSORS

### Crackmeter

**external sensor:**  
(Sensors with different features available\*.  
Features provided for Gefran PZ12-A -25)

Range 0 - 25 mm  
Accuracy: <0.1% FS  
Resolution: 0.01 mm  
Dimension: case 102 x 12.9Ø mm  
Minimum distance between ball-joints: 153mm  
Cable length: 1m  
Weight: 70 g  
Materials: anodised aluminium Nylon 66 G 25 (case)  
stainless steel AISI 303 (control core)  
Fixing: selfaligning ball-joints  
Protection Degree: IP60 (IP65 on request)

### Temperature sensor:

Range: -20 / +60 °C  
Resolution: 0.01 °C  
Accuracy: ± 0.2°C

### Memory:

2Mb flash for datalogging (150000 acquisitions)



## RADIO

### Frequency:

2.4 GHz

### Standard:

IEEE 802.15.4

### Power:

Programmable up to 4.5 dBm

### Reading distance:

100 m in free air



## POWER SUPPLY

Non-rechargeable lithium batteries 3 V (standard CR2). Battery life from 2 to 10 years



## WORKING TEMPERATURE

-20 / +60 °C



## DIMENSION

65 x 50 x 37 mm



## WEIGHT

70 g (without crackmeter external sensor)



## FIXING

Internal case screws



## PROTECTION DEGREE

IP 65

\* [www.gefran.com](http://www.gefran.com)

## ICETAG CUBE Reader



## RADIO

### Frequency:

2.4 GHz

### Standard:

IEEE 802.15.4

### Power:

Programmable up to 4.5 dBm

### Reading distance:

100 m in free air



## INTERFACE

USB-A male



## POWER SUPPLY

5Vdc by USB, max power consumption 40 mA



## WORKING TEMPERATURE

-20 / +70 °C



## DIMENSION

53 x 40 x 20 mm



## WEIGHT

22 g



## PROTECTION DEGREE

IP54