G1 Gauge

The G1 gauge is recommended for monitoring parallel-lip cracks. It provides reliable measurements with 0.1 mm resolution.

An application, available at https://saugnac.app, is provided for reading and managing the measurements.

The G1 gauge offers the following advantages:

- **0.1 mm** measurement resolution
- Unique identification by QR code and **measurement tracking in the Saugnac application** (more information at https://saugnac.app/help)
- Maintenance-free mechanical gauge
- Easy to fix to a smooth, clean surface **using the adhesive supplied**. Can be mechanically fixed using 4mm drilled holes
- Flexibility for installation on substrates with uneven surfaces
- Folding bar with oblong hole to absorb parasitic movements
- Can be used to track **cracks in corners** without accessories, using the folding bar supplied
- Marking zone for readings

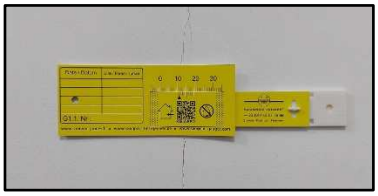
The G1 gauge is designed, produced and assembled in France.

The G1 gauge is available in 3 versions:

The **G1** gauge, for indoors or **outdoors**

Weather, cold and UV resistant

www.saugnac-gauges.com/product/gauge-g1/



The **G1.1** gauge, **for indoor use only**

For use inside buildings and dry rooms.

www.saugnac-gauges.com/product/g1-1-gauge/

The **G1.2** gauge, **transparent**

For quality structure. For interior or exterior use.

www.saugnac-gauges.com/product/g1-2-gauge/

Technical data

Resolution	0,1 mm
Dimensions	160 x 40 x 3 mm (in initial position)
Measuring range	Approx. 20 mm (variation possible between maximum and minimum measurement)
Weight	5,8 g
Material	PVC with UV stabiliser (excluding G1.1)
Folding bar material	White homopolymer polypropylene with UV stabilisers (excluding G1.1)
Coefficient of expansion	7.10^{-5} m/m/°C
Installation temperature with adhesives supplied	G1: 0°C to 35°C (-10°C acceptable*) G1.1 : 15°C to 25°C (5°C acceptable*) G1.2: 10°C to 35°C (0°C acceptable*)
Operating temperature	G1 : -40°C to 90°C G1.1 : 0°C to 90°C G1.2: -35°C to 90°C

**heat the stickers on the gauge and bar for a few seconds in your hands.*

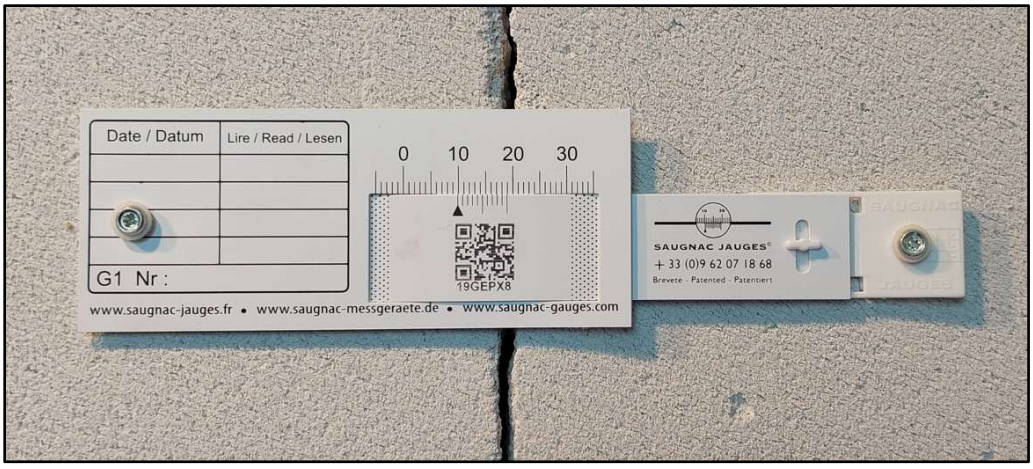
Fixing the G1 gauge

- **By gluing**:
    - **With the adhesives supplied** on the gauge: we recommend bonding if the substrate is smooth, clean, dry and solid, and if the installation temperature is respected.
      The optimum application temperature for bonding according to the gauge is indicated in the technical data table.
    - **With epoxy adhesive:** if the surface is not completely flat and has irregularities, we recommend reinforcing the bond with two-component adhesive.
- **With mechanical fixing**: for any difficult surface that crumbles, is dusty, damp or has asperities, or in cases where the installation temperature cannot be respected, mechanical fixing should be preferred.

  G1 gauges are supplied with 2 Ø 4 mm holes. These holes facilitate mechanical fixing by means of impact anchors. The 4 mm diameter makes it very easy to drill the hole on any surface.

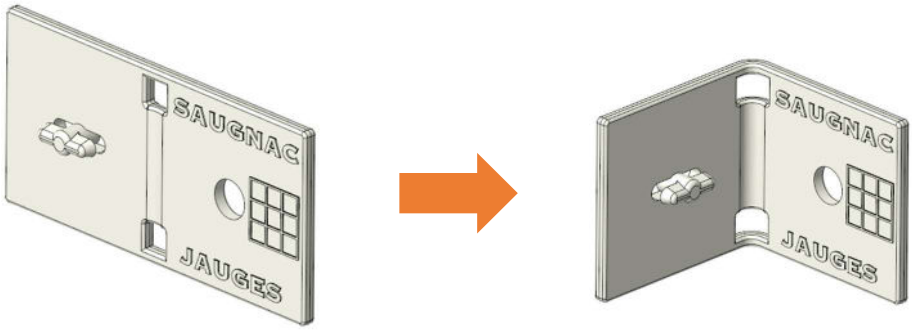
A: Impact anchors
B: Hole ø4 in the strip
C: Hole ø4 in bracket

Result of installation with mechanical fixing:



Corner mounting

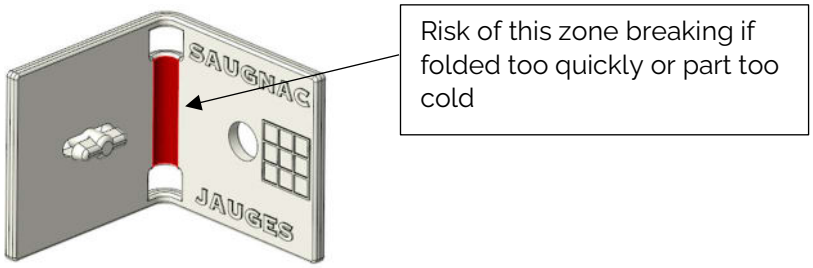
Gauges in the G1 family are supplied with a **folding bar** for angled mounting. The part has a thin section to guide and facilitate bending:



Example of corner fixing:

To avoid any risk of breakage when folding:

1. The temperature of the material to be bent should be at least 10°C. If the temperature is lower, we recommend warming the clip in your hand before bending.
2. Bending must be continuous (avoid jerking) and relatively slow (about 3s).



UV Resistance (except G1.1 not UV-resistant)

Based on accelerated ageing tests, UV resistance is greater than 1200 Kilo-Langley, which corresponds to around 7 to 10 years' exposure in Europe.

Cold Resistance

The choice of materials (PVC Choc and Polypropylene) and the marking process ensure that the gauge can be used from -40°C to +80°C without any deterioration in measurement reliability.

Impact of expansion

The coefficient of linear expansion of materials is 7.10-5 m/m/°C. So a variation of 1°C will have an impact of around 0.009mm on the measurement.

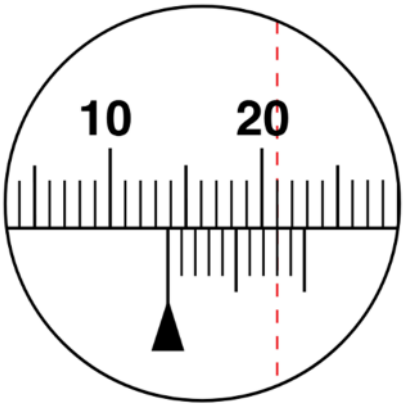
In the event of significant temperature variations, we recommend using our application for monitoring measurements, available at https://saugnac.app/, or our Excel monitoring file, available on our website: www.saugnac-gauges.com/product/gauge-g1/#fichier .

Both the application and the file can be used to correct the reading according to the expansion of the gauge.

Reading the G1 gauge

The upper division is graduated in mm from 0 to 30: this is the measuring scale.

The lower division is movable: this is the vernier scale to 1/10th of a mm (10 divisions of the vernier scale correspond to 9 mm of the measurement scale).



a) Reading mm :

The vernier mark ▲ is located between two graduations on the measurement scale. Example: between 13 and 14. The number of mm corresponds to the graduation to the left of the vernier mark ▲ : 13 mm in the example.

b) Reading the decimal point:

Look for a line on the vernier which coincides with a line on the measurement scale. In the example, graduation 8 on the vernier scale coincides with graduation 21 on the measurement scale. This means that the decimal reading is 8/10ths of a mm.

It therefore reads 13.8 mm

Protecting the G1 gauge

The gauge can be protected to prevent damage in public places (tearing off, tags). The protection is made of PMMA and is fixed with the dowels supplied.

Monitoring measurements with the Saugnac application

The Saugnac web application, which is completely free with no restrictions, is available on PC or smartphone from https://saugnac.app/. It allows you to :

- identify each gauge and its measurements with a **unique QR code**
- **automatically read the measurements** of the G1, G1.1 and G1.2 gauges
- save measurements in your space
- retrieve **temperature** and **humidity** levels using geolocation
- calculate **measurements with expansion** as a function of temperature
- **work with several people** on the same gauge
- manage **alert thresholds**
- classify gauges by location and locate them on a map
- download **data in Excel format**
- automatically display graphs
- **share data** with others without an account
- access the application from your **PC** or **smartphone**
- add measurements without a connection in offline mode