

3.8 Diving with MB levels

Microbubbles (MB) are tiny bubbles that can build up inside a diver's body during any dive and normally dissipate naturally during an ascent and on the surface after a dive. Dives conducted within no-stop times and the observance of decompression stops do not prevent the formation of microbubbles in the venous blood circulation.

Dangerous microbubbles are those migrating into the arterial circulation. The reasons for the migration from the venous blood circulation to the arterial circulation can be a many microbubbles collecting in the lungs. SCUBAPRO has equipped the G2 with technology to help protect divers from these microbubbles.

With the G2, you can choose – according to your specific needs – a MB level that will provide a level of protection from microbubbles. Diving with MB levels includes additional ascent stops (level stops); this slows the ascent process, giving the body more time to desaturate. This works contrary to the formation of the microbubbles and may increase safety.

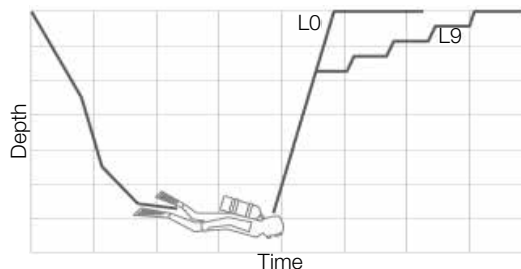
The G2 features 10 microbubble levels (L0-L9). Level L0 corresponds to SCUBAPRO's well-known decompression model ZH-L16 ADT and does not require level stops due to microbubble formation. Levels L1 to L9 offer additional protection from microbubble formation, with level L9 offering the highest protection.

Similar to the display of information during decompression dives or dives within no-stop time, the G2 displays depth and duration of the first level stop as well as the total time of ascent as soon as the MB no-stop time has run out. As the MB no-stop time is shorter than the ordinary no-stop time you will be required to perform a stop (level stop) sooner than a diver using level L0.

If you ignore a required level stop, the G2 will simply step down to a lower MB level. In other words, if you choose level L8 prior to the dive, and during the dive you ignore the L8's recommended stops, the G2 will automatically adjust the setting to level L7 or lower.

3.8.1 Comparison of dives with MB level L0 and MB level L9

When two G2 dive computers are used simultaneously, with one unit set to a MB level of L9 and the other to a MB level of L0, the no-stop time for the L9 unit will be shortened and more level stops will be required before the diver has the obligation of a decompression stop. These additional level stops help dissipate microbubbles.



3.9 PDIS (Profile Dependent Intermediate Stop)

3.9.1 Introduction to PDIS

The main purpose of a dive computer is to track your nitrogen uptake and recommend a safe ascent procedure. Diving within the so called no-stop limits means that at the end of the dive you can ascend directly to the surface, albeit at a safe ascent rate, while for dives outside of the no-stop limit (so-called decompression dives), you must perform stops at certain depths below the surface and allow time for excess nitrogen to be expelled from your body before finishing the dive.

In both cases, it can be beneficial to stop for a few minutes at an intermediate depth between the maximum attained depth during the dive and the surface or, in case of a decompression dive, the first (deepest) decompression stop.

An intermediate stop of this kind is beneficial as soon as the ambient pressure at that depth is low enough to ensure that your body is predominantly off-gassing nitrogen, even if under a very small pressure gradient. In such a situation, you can still cruise along the reef and enjoy the dive while your body gets a chance to slowly release nitrogen.