

ZENITH DEFY ZERO G SAPPHIRE - DEFYING THE LAWS OF GRAVITY WITH TWO NEW LIMITED EDITIONS IN BLUE AND TRANSPARENT SAPPHIRE

Defying gravity is no metaphor at ZENITH, it is a patented reality that no other watchmaker has achieved. Introduced in 2008, the ZENITH Zero G stands alone in the world of haute horlogerie as the only wristwatch movement equipped with a gimbal-mounted "Gravity Control" escapement module, a breakthrough that neutralizes the effects of gravity on precision in real time. Protected by exclusive patents and born of years of pioneering research, this unrivaled innovation embodies the Manufacture's relentless pursuit of chronometric perfection. As ZENITH celebrates its 160th anniversary, the Manufacture elevates this horological feat to new heights with two spectacular DEFY Zero G models crafted entirely in sapphire, one in deep celestial blue, the other fully transparent. Each version is released in an extremely limited run of 10 pieces worldwide.

Defying the laws of gravity

Since its founding in 1865, ZENITH has devoted itself to capturing the essence of time with unparalleled precision. This pursuit transcends mere technique; it embodies a philosophy and a steadfast commitment to elevate chronometry to heights never imagined. With over 2,333 chronometry awards, ZENITH is the most decorated watchmaking Maison in the history of observatory competitions.

Among the Manufacture's countless developments in the field of chronometry, the ZENITH Zero G movement provides a unique solution to one of the greatest challenges in mechanical watchmaking: the influence of gravity on timekeeping precision. Depending on the position of a watch, gravity acts differently on its regulating organ, altering its rate. A famous solution to combat the effects of gravity, the tourbillon, was designed to compensate for positional errors over time when a watch was kept in certain static positions. Yet modern wristwatches are worn on constantly moving wrists, making positional errors more complex.

The ZENITH Zero G movement draws inspiration from another solution: the marine chronometers of the past. Essential for long-distance navigation, these instruments had to maintain a steady rate aboard ships constantly subjected to rolling and pitching. To achieve this, the chronometer was placed inside a case suspended in a gimbal system, allowing it to remain perfectly level and effectively cancel gravity's



influence in real time. What makes the ZENITH Zero G exceptional is that this stabilization principle has been miniaturized and integrated into a wristwatch. Here, the regulating organ, not the entire movement, is kept horizontal. This is achieved through a gimbal-mounted Gravity Control module that is weighted and balanced to always remain in the horizontal position. Instead of merely averaging errors as in a tourbillon, it effectively eliminates positional variations. This also means that the movement can be regulated in a single position, allowing the watchmaker to achieve exceptionally high precision.

This horological feat required extraordinary miniaturization and engineering. The movement originally took 7 years of development and is protected by a patent related to the Gravity Control cage. The transmission of torque from the barrel to the escapement is particularly complex: it is redirected into the Gravity Control module via an elaborate conical bevel gear system. These bevel gears are mounted in a miniature differential that enables the consistent transfer of rotation regardless of the module's orientation as it tilts in space. This ingenious architecture ensures that the escapement receives a stable driving torque.

A wonder of miniaturization

First unveiled in 2008, by 2018 the ZENITH Zero G was refined with a more compact "Gravity Control" gyroscopic module that now occupies just 30% of its initial volume. This assembly is composed of 139 components housed within a volume of about $1.3~\rm cm^3$ ($13.40~\rm mm~x~10.90~mm~x~8.84~mm$). It incorporates no fewer than 9 non-magnetic, lubrication-free ceramic ball bearings.

Sapphire limited editions

In 2021, ZENITH reinterpreted its cutting-edge haute horlogerie calibre, redesigning the entire movement with a new architecture to enable a more open, exhibitive display, and encapsulating it in a transparent sapphire case that allows its captivating mechanism to be admired from all angles. As part of its 160th anniversary celebrations, ZENITH now presents two new DEFY Zero G limited editions, with 46mm cases crafted in blue and transparent sapphire. The case middle, bezel and back are cut from blocks of sapphire, a material almost as hard and scratch-resistant as diamond.

Continuing the anniversary theme, the offset hours, minutes and small seconds appear on a lapis lazuli dial with luminescent faceted hour markers. The deep blue dial, flecked with gold-colored pyrite, evokes a starry sky, and thanks to its natural



texture, each watch is unique. The 50-hour power reserve is indicated at 3 o'clock. Visible on both sides, the skeletonized manual-winding El Primero 8812S calibre contrasts strikingly with the slim, star-evoking bridges in a light tone. Its openworked architecture offers a captivating perspective on the Zero Gravity module at 6 o'clock, which rotates to remain in a horizontal position as the watch moves. Its silicon escapement wheel is paired with a nickel-silicon anchor, while the balance wheel features a double-arrow regulator—a nod to the design of ZENITH chronométrier Charles Fleck. As a double guarantee of extreme precision, the El Primero 8812S calibre beats at a fierce pace of 5Hz. Finally, the module's counterweight surface is engraved to recall a celestial body.

The ZENITH DEFY Zero G sapphire limited editions are presented on a blue integrated alligator leather strap with a folding buckle.

Released in a limited edition of 10 pieces each, the DEFY Zero G models are available from the brand's physical and online boutiques, as well as through authorized retailers worldwide.



ZENITH: THE HEART OF WATCHMAKING

Founded in 1865 in Le Locle, Switzerland, ZENITH has been at the forefront of Swiss watchmaking for over 160 years, driven by a pioneering spirit and a relentless pursuit of precision. As the first vertically integrated Swiss watch manufacture, ZENITH has continuously revolutionized horology by developing and manufacturing in-house movements, most notably the El Primero, the world's first automatic chronograph calibre launched in 1969, renowned for its unparalleled precision and high-frequency performance.

ZENITH's timepieces celebrate its dedication to innovation and exceptional craftsmanship. The CHRONOMASTER collection highlights the brand's mastery of high-precision chronographs, the DEFY showcases technical innovation and bold design, while the PILOT collection celebrates ZENITH's storied aviation legacy with distinctive, adventure-ready timepieces. This unwavering commitment to precision has been recognized with an unparalleled 2,333 chronometry prizes, underscoring ZENITH's enduring legacy of excellence. The calibre 135, having won most of those prizes went through a modern reengineering integrating up-to-date technical solutions and materials. ZENITH decided to give it a new home in its newly introduced G.F.J collection.

Throughout its history, ZENITH timepieces have accompanied pioneers who dared to dream big and achieve the extraordinary: from Louis Blériot's historic flight across the English Channel to Felix Baumgartner's record-breaking stratospheric free-fall jump. This daring spirit continues to drive the Maison as it redefines the future of Swiss watchmaking. Celebrating over a century and a half of excellence, innovation, and purpose, ZENITH remains at the forefront of Swiss horology, empowering those who challenge conventions and strive for greatness.

From Le Locle to the world, from 1865 to now, ZENITH is the heart of watchmaking.



DEFY ZERO G

Reference: 04.9003.8812/51.R584

Key points: Full blue sapphire case. Entirely skeletonized movement: El Primero 8812. "Gravity Control" gyroscopic module that ensures horizontal positioning of the regulating organ. Now occupies only 30% of its initial volume. Inspired by the legendary marine chronometers. Openworked dial. The movement is protected by 1 patent related to the Gravity Control cage. Limited edition of 10 pieces.

Movement: El Primero 8812 **Frequency:** 36,000 VpH (5 Hz) **Power reserve:** 50 hours

Functions: Hours and minutes excentred at 12 o'clock, small seconds at 9 o'clock, self-regulating Gravity Control module at 6 o'clock, power-reserve indication at 3 o'clock **Finishes:** Exclusive two tones (blue and rhodium) signature on plates and bridges + milled

Starry Sky. Laser decorated Platinum counterweight of the gyroscopic system.

Price: 200 000 CHF / 220 000 Euros / 207 500 USD

Material: Blue Sapphire **Water resistance**: 3 ATM

Case: 46mm

Dial: Openworked with Lapis Lazuli dial

Hour markers: Rhodium-plated, faceted and coated with SuperLuminova SLN C1

Hands: Rhodium-plated, faceted and coated with SuperLuminova SLN C1

Bracelet & Buckle: Blue Alligator leather lining on rubber with titanium folding clasp

DEFY ZERO G

Reference: 04.9000.8812/51.R584

Key points: Full transparent sapphire case. Entirely skeletonized movement: El Primero 8812. "Gravity Control" gyroscopic module that ensures horizontal positioning of the regulating organ. Now occupies only 30% of its initial volume. Inspired by the legendary marine chronometers. Openworked dial. The movement is protected by 1 patent related to the Gravity Control cage. Limited edition of 10 pieces.

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Starry Sky. Laser decorated Platinum counterweight of the gyroscopic system.

Price: 200 000 CHF / 220 000 Euros / 207 500 USD

Material: Transparent Sapphire **Water resistance**: 3 ATM

Case: 46mm

Dial: Openworked with Lapis Lazuli dial

Hour markers: Rhodium-plated, faceted and coated with SuperLuminova SLN C1

Hands: Rhodium-plated, faceted and coated with SuperLuminova SLN C1

Bracelet & Buckle: Blue Alligator leather lining on rubber with titanium folding clasp



