



# DIEHL AEROSPACE EXPANDS COOPERATION WITH VOLOCOPTER FOR THE VOLOCITY

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**Volocopter and Diehl Aerospace are further expanding their cooperation. The contract extension provides for the development and production of an optical splitter to complement the flight control system as well as other components for the battery management system for the first all-electric VoloCity air taxi. Diehl Aerospace has already developed the Flight Control Computer (FCC) for the VoloCity, including the primary and backup control computers.**

**The optical splitter complements the flight control system by providing control information to the VoloCity's total of eighteen rotors. In contrast to conventional fly-by-wire control systems, the electrical signals from the flight control computer are translated into optical signals and consequently controlled optoelectronically. Instead of electrical signals via copper wires, light signals are now used via corresponding optical fibers to transmit measured values and control commands.**

**This so-called Fly-By-Light control is considered to be particularly immune to electromagnetic interference, for example from cell phones or transmission towers. Interference immunity is a key safety criterion, particularly in view of the VoloCity's planned flight operations at low altitudes in cities. With the development of an optical splitter, Diehl Aerospace once again underlines its competence in flight control technology for**

## **commercial aviation.**

In addition, Diehl Aerospace is developing the Data Concentration Unit (DCU) for Volocopter, which is the counterpart to the optical splitter. The DCU collects optical signals from 18 rotors via an optical interface and converts them into digital data for the avionics. This provides the pilot with feedback on the status of engine speed and temperature. With the DCU box, Diehl Aerospace completes the Volocopter's Fly-By-Light system for the VoloCity.

With the use of the Fly-by-Light technology in the eVTOL VoloCity, Diehl makes a significant contribution to ensuring maximum safety and highest reliability in the field of Urban Air Mobility, a market of the future. "We are excited to further expand our partnership with Volocopter, an innovative pioneer in the UAM market, bringing our many years of experience and expertise in flight control systems to the table," said Florian Maier, CEO of Diehl Aerospace.

In addition to the flight control system, Diehl will also supply further sub-components for the Battery Management System for monitoring the batteries of the VoloCity. The system provides a platform to manage and monitor the battery packs installed in the aircraft, thus safeguarding the operation of the all-electric air taxi. VoloCity features nine battery packs that are replaced and recharged after the flight. In order to monitor the battery status during the flight, the pilot receives all flight-relevant information via a corresponding system, for example on the remaining energy and the possibility to control the power supply.

eVTOLs are considered to be the growth market of the future due to the increasing volume of traffic worldwide. With its latest technical developments for Volocopter's VoloCity, Diehl is making a decisive contribution to ensuring the necessary safety and reliability for air taxis and cargo drones of the future. The company benefits from its many years of experience and high level of technical expertise in civil aviation.

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