

P R E S S   R E L E A S E

## **Eberspächer Vecture: Intelligent Battery Solutions for Industry 4.0 and Logistics**

- **Precise 12 channel digital acquisition system for forklifts**
- **Battery Management Systems for warehousing automation**
- **High-performing lithium-titanate-batteries for industrial usage**

*Esslingen / Concord, Canada, 4 December 2017* – **In logistics and warehousing forklifts are the driving force. Eberspächer Vecture’s Battery Management Systems (BMS), digital acquisition systems (DAQ) and battery chemistries ensure their optimal functioning. One year after Eberspächer acquired the majority stake in Vecture Inc., the company further develops its expertise for industrial purposes.**

Eberspächer Vecture designs and manufactures a variety of systems, sub-systems and related components that are used in BMS applications. Those BMS coupled to lithium titanate technology are an elegant and effective solution for robotic handlers. The battery experts also develop and manufacture a new 12 channel digital acquisition system (DAQ), which gives exact information on necessary data such as loading status or voltage. Located on each battery, all DAQ’s give information to the Electronic Control Unit (ECU). The advantage: The number of integrated batteries is flexible, so is the used chemistry, e.g. lithium-iron-phosphate (LFP), nickel manganese cobalt oxide (NMC) or lithium-titanate (LTO).

### **DAQ-Solutions for forklifts and moving vehicles**

On basis of the 12 channel DAQ, Eberspächer Vecture in cooperation with Hyster Yale now developed a specific DAQ for forklifts. In warehousing and logistics it is necessary to know how long a forklift can be moved without recharging, so it does not stop abruptly e.g.

in the middle of moving goods. The new developed DAQ works very precisely and provides voltage and temperature for each battery cell to the ECU. A forklift can still run if one battery fails, it all depends on the total voltage. With help of the 12 channel DAQ, it is possible to exploit the usage time optimally. Due to its small size and the flexible application possibilities, this DAQ is a leading solution for industry 4.0-applications: it is adaptable for robotics, warehouse vehicles or other specific usages.

### **Small portable batteries with large power**

Besides DAQ, Eberspaecher Vecture also refined their portable energy storage for forklifts and other warehousing vehicles. With an overall weight of less than 30 kilo, the battery is lightweight and can be carried in a rugged case. The 2 kilowatt-hours energy storage system with high current of 500 amps is suitable for most motors. Depending on the needs the portable energy storage is available in different voltages (24V, 36V, 48V and 80V) and in LFP- or LTO-battery chemistries. Especially lithium-titanate is a good choice, as it has a long lifecycle of more than ten years, short charging time and is very cost effective. Eberspaecher Vecture's portable energy storage is ideal for forklifts in manufacturing environments, where power and portability are critical. The battery can be removed and reintegrated easily, for instance before and after shipment. Furthermore opportunity charge is possible, so it can be recharged only for a few minutes and does not need to pause for a longer time. In combination with battery management systems, the portable energy storages facilitate every day work in warehouses and logistics.

### **Caption:**

*Eberspaecher Vecture's 12 channel DAQ suits for many applications – from logistics up to industry 4.0-vehicles.*

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**About Eberspaecher:**

*The Eberspaecher Group is one of the world's leading system developers and suppliers of exhaust technology, vehicle heaters and bus air conditioning systems. Eberspaecher is also a professional innovation partner for the automotive industry in air conditioning of special-purpose vehicles and in automotive electronics. Customers include almost all European and North American, and increasingly more Asian manufacturers of passenger cars and commercial vehicles. In 2016, the internationally positioned group, with more than 9,000 employees, posted sales of over 4.3 billion Euros.*

**About Eberspaecher Vecture:**

*Eberspaecher took over the majority stake of the Canadian company Vecture Inc. in September 2016. Eberspaecher Vecture provides portable battery management systems (BMS) for medical, military and industrial applications. For more than ten years the experts have developed, tested and produced BMS systems for customers in North America and Europe at its plant in Concord, Ontario (Canada). The company is a certified medical technology provider and a leader in the development of energy-saving and performance applications for special-purpose vehicles.*  
<http://www.eberspaecher-venture.com/>