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## Revolution in automation

The Festo Motion Terminal heralds the beginning of a new era

**Pneumatics is intrinsically a user-friendly technology. And it is set to become even more straightforward, versatile and flexible as the brand new Festo Motion Terminal VTEM is catapulting pneumatics into the era of Industry 4.0 – with apps that can replace over 50 individual components. All this is made possible by the latest developments in piezo technology and software.**

Our reference  
SG-MIM/HAUG

Just as the smartphone turned the mobile communication market on its head a decade ago, so too the Festo Motion Terminal will turn automation technology on its head, so too the Festo Motion Terminal is set to revolutionise automation technology. The new method of function integration – combined with software apps – will simplify the entire value chain, since only one piece of hardware will be required. Beneath the somewhat unassuming exterior and classic Festo product design lies technical refinement based on state-of-the-art information technology.

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### True Industry 4.0

Piezo technology, integrated stroke and pressure sensors together with control via motion apps will open up entirely new perspectives for machinery and plant manufacturers. The fusion of mechanics, electronics and software featured in the Festo Motion Terminal will transform a pneumatic product into a true Industry 4.0 component, and enable flexible production. Changes in pneumatic functions and adaptations to new formats are controlled via apps by changing parameters. The integrated intelligent sensors for control, diagnostics and self-learning tasks will eliminate the need for additional components.

### Motion apps

When the VTEM is launched, ten functions will be available via motion apps: from basic modification of the directional control valve functions to energy-efficient motion, and from proportional behaviour to different motion profiles. What makes this so special is that the same valve hardware is used for everything. Thanks to the fast activation of new functions via apps, machine developers can create a basic machine type and then select the relevant apps to equip it with different functions and features as per the customer requirements. Further apps are in development.

Assigning functions via software has the added benefit of protecting against tampering and protecting know-how, since it is not possible to tell from the outside which functions the valves are executing. Maintenance is also simplified, as long lists of spare and wearing parts will be a thing of the past.

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## **Intrinsic energy efficiency**

The specially developed motion apps as well as the leakage diagnostic function save energy during operation. However, the energy-saving piezo technology for the proportional valve's preliminary stage also plays its part.

The air consumption can be flexibly adapted to the requirements using the apps "Selectable pressure level" and "ECO drive". With the selectable pressure level, a digitally selected pressure can limit the pneumatic force to the level required for the application. ECO drive reduces the compressed air consumption to the required minimum level, provided no pressing and holding forces are needed in the end position. This enables savings of up to 70% compared with standard operation, depending on the application.

## **Lower costs and complexity**

The Festo Motion Terminal permits both fast and powerful movements and leakage diagnostics at much lower costs than current solutions. For example, fewer controllers are required compared with electrical solutions since one controller can control up to eight movements with the VTEM. Energy consumption is also reduced, and the required installation space is decreased by up to 65%.

In a comparison of the technology, solutions with the Festo Motion Terminal offer truly cost-effective alternatives for eight applications. Instead of a valve, a pressure regulator and a pressure sensor, in other words three components, only one single technology - a valve - is needed.

Further information on the international market launch in 2017/2018 can be found here: [www.festo.com/motionterminal](http://www.festo.com/motionterminal)

## **About Festo:**

Festo AG is a global player and an independent family-owned company with headquarters in Esslingen am Neckar, Germany. The company supplies pneumatic and electrical automation technology to 300,000 customers of factory and process automation in over 40 industries. The products and services are available in 176 countries. With about 18,800 employees in over 250 branch offices in 61 countries worldwide, Festo achieved a turnover of around €2.74 billion in 2016. Each year around 8 % of this turnover is invested in research and development.

In this learning company, 1.5 % of turnover is invested in basic and further training. Yet training services are not only provided for Festo's own staff – Festo Didactic SE also supplies basic and further training programmes in the field of automation technology for customers, students and trainees.

Please refer to: Festo press photo Motion Terminal VTEM 1



Caption: Revolution in automation with the Festo Motion Terminal: thanks to the activation of new functions via apps, machine developers can create a basic machine type and equip it with different features as per the customer requirements. (Photo: Festo AG & Co. KG)

Please refer to: Festo press photo Motion Terminal VTEM 2 and Festo press photo Motion Terminal VTEM 3



Caption: Festo Motion Terminal VTEM: beneath the somewhat unassuming exterior and classic Festo product design lies technical refinement based on state-of-the-art information technology. (Photos: Festo AG & Co. KG)

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