

## **TENNECO INTRODUCES INTELLIGENT IGNITION UNIT FOR OIL AND GAS BURNERS WITH INTEGRATED FLAME DETECTION**

Conversion to Surface Mounted Device (SMD) technology enables an industry-first analog signal on flame quality for easier diagnostics, higher operational stability and efficiency

Lake Forest, Illinois, April 7, 2021 – Tenneco (NYSE: TEN) has strengthened its broad portfolio of high quality ignition products for industrial and heating applications with the introduction of an advanced ignition unit with integrated flame detection that has been designed for optimum performance in oil burning industrial heating systems.

Developed by the company’s Powertain business group, the new ignition unit builds on the proven, patented version and has been extensively enhanced with SMD technology. This allows the optimized unit to meet and surpass the requirements of customers in the the heating industry, delivering improvements in efficiency and operational stability while also enabling easier diagnostics.

The new Tenneco ignition unit represents an industry-first; providing an integrated flame detection system producing an analog signal for assessing flame quality data for prompt diagnostics of the burner setting by service engineers and heating appliance manufacturers. This optional feature will allow unprecedented fine-tuning of the burner system for it to work at optimum efficiency and reliability. Furthermore, the evaluation of the analog signal provides information for preventive maintenance. To steer clear from system failures, the signals can be made available to the user or the service engineer. Internal flame monitoring is retained from the previous models of the ignition unit, avoiding the need and cost for an additional flame detecting system.

“With our new intelligent ignition unit, we are able to offer our customers in the heating industry a specific solution that was previously missing in the sector. The analog signal for flame quality opens a range of optimizations for the development, commissioning and maintenance of burner systems,” says Dr. Volker Scherer, Director Sales and Engineering, Industrial Ignition, Tenneco Powertrain.

The new version of the ignition unit has been designed primarily for blue flame oil burners with ignition electrodes located in the combustion zone. It is available in two temperature classes (60°C and 75°C) and certified for use in oil and gas burners in accordance with EN298. “In condensing gas burners, multi-gas operation up to 30 percent hydrogen (H<sub>2</sub>) content is also possible, enabling significantly lower CO<sub>2</sub> emissions when H<sub>2</sub> is produced from renewable energy sources,” Scherer adds. “We are currently working on future hydrogen applications for condensing boilers with higher H<sub>2</sub> admixtures up to pure hydrogen.”

### **SMD technology enables numerous advantages**

In addition to the industry-first analog signal for enhanced diagnostics, using SMD technology will allow a more reliable design to be implemented in a more compact footprint. Therefore, it was possible to add a new EMC filter (electromagnetic compatibility) to the ignition unit. This improvement enabled excellent results at the standardized 4kV EN6100-4-5 surge test: compared to the previous design, much higher voltage peaks, e.g. caused by chattering relays or inductive loads, can be tolerated. This should protect the ignition unit from damage.

The conducted interference emissions have also been reduced, and behavior in the event of undervoltage is now optimized. In addition, the Tenneco experts revised the trigger input to activate the unit; interference signals from the burner controller and other electromagnetic disturbances are suppressed more effectively and are expected to prevent failures in operation.

A new epoxy resin system, which is processed in vacuum, helps ensure a maximum of dielectric strength and thermal conductivity. Two temperature classes of the units are available: the standard version for ambient temperature of 60°C and on request for 75°C for use in hotter environments.

Tenneco draws on more than 100 years of know-how and experience in manufacturing ignition components. The Industrial Ignition business combines the company's ignition activities related to industrial and heating applications. Working closely with customers and utilizing its numerous in-house test and inspection centers, Tenneco is committed to being a trusted industry leader in the continuous development of ignition components and their applications.

## IMAGES:

	<p>Tenneco introduces a new intelligent ignition unit for oil and gas burners with integrated flame detection. The conversion to SMD technology enabled an additional analog signal on flame quality for easier diagnostics, higher operational stability and efficiency. The analog signal can be accessed at the additionally created contact "A".</p> <p>© 2021 Tenneco Inc.</p>
	<p>Tenneco introduces a new intelligent ignition unit for oil and gas burners with integrated flame detection. The conversion to SMD technology enabled an additional analog signal on flame quality for easier diagnostics, higher operational stability and efficiency.</p> <p>© 2021 Tenneco Inc.</p>

## About Tenneco

Tenneco is one of the world's leading designers, manufacturers and marketers of automotive products for original equipment and aftermarket customers, with full year 2020 revenues of \$15.4 billion and approximately 73,000 team members working at more than 270 sites worldwide. Through our four business groups, Motorparts, Ride Performance, Clean Air and Powertrain, Tenneco is driving advancements in global mobility by delivering technology solutions for diversified global markets, including light vehicle, commercial truck, off-highway, industrial, motorsport and the aftermarket.

Visit [www.tenneco.com](http://www.tenneco.com) to learn more.

This news release contains "forward-looking statements". The forward-looking statements are subject to risks and uncertainties that could cause Tenneco's results to differ materially. All forward-looking statements should be considered in the context of the risk and other factors detailed from time to time in Tenneco's Securities and Exchange Commission filings.

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