



AVL COMPACT™

AVL FUEL CONDITIONING COMPACT™ **C**

For precise and reproducible fuel consumption measurement of internal combustion engines, you need more than just an accurate fuel meter. Equally important is a fuel conditioning system that controls the demand fuel temperature within tight tolerances.

The AVL FUEL CONDITIONING COMPACT™ is a fuel conditioning device with integrated heating. It maintains the fuel temperature and fuel pressure to the engine-inlet of two-wheeler engines up to truck engines. AVL FUEL CONDITIONING COMPACT™ is suitable for basic R&D, endurance, quality and end of line testing. It is easy to operate, either from its user-friendly control panel or by means of a testbed automation system via a hybrid interface.

Another highlight is the optional AVL CHILLER UNIT COMPACT™. It makes the fuel conditioning device fully independent from the cooling water temperature and quality, ensuring easy use in a harsh environment. Continuous bubble separation together with manually or automatic forced venting guarantees reliable measuring results at any time. Drawing on more than 40 years of experience

in designing fuel consumption measuring systems, AVL supports you in maximizing your final product quality.

Benefits at a Glance

- Flexibility in terms of engine type&size – one size fits all
- Easy operation
- Short settling time for reproducible results
- No water supply needed (chiller unit) – Option
- Automatic forced venting based on bubble detection – Option

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AVL, the technology leader for automotive testing systems, provides comprehensive know-how, also for basic testing requirements. Easy to use, functional and good valued, AVL COMPACT™ is the best COMPACT solution in the market.

Ready. Set. Go.

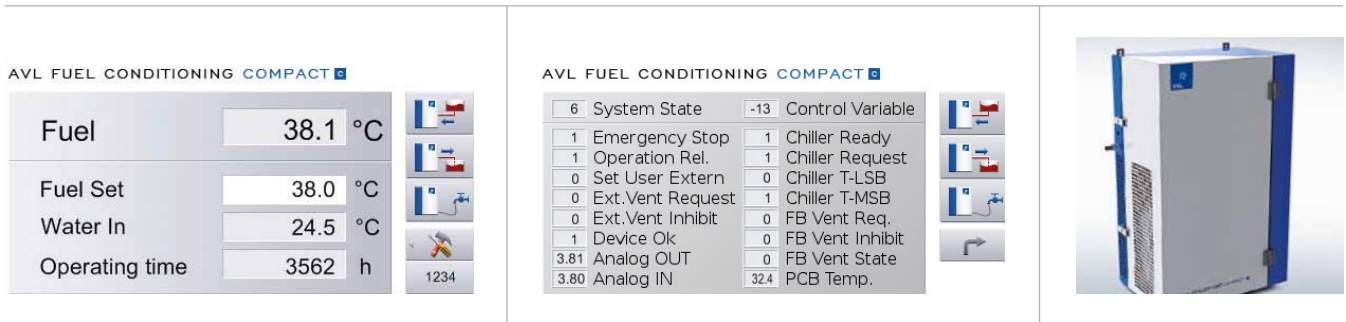


Figure left/middle: Control panel. Figure right: AVL CHILLER UNIT COMPACT™

Applications

The AVL FUEL CONDITIONING COMPACT™ is capable of conditioning fuel for consumptions up to 125 kg/h with a temperature stability of ± 0.5 °C.

Our precise temperature control prevents the measurement accuracy from being affected by changes in the temperature. A must for reliable development work when determining fuel consumption on modern diesel and gasoline engines.

The controlled conditioning system allows you to set the outlet fuel temperature anywhere within the range between 15 and 60 °C. A pump in the engine fuel feed line ensures a constant flow to the bypass at the engine-inlet and hence guarantees smooth heat transfer. Air or vapor bubbles in the fuel can be vented by a remote

command or automatically without entering the test cell. Automatic forced venting based on bubble detection is optionally available.

The system is designed to operate seamlessly with AVL Fuel Meter Compact, AVL Fuel Balance 733S and AVL Fuel Mass Flow Meter 735S. Also any existing fuel meter can be extended with AVL FUEL CONDITIONING COMPACT™ to improve the system accuracy of your whole fuel measuring installation.

To be independent from the cooling water supply facility, the optional AVL CHILLER UNIT COMPACT™ can be connected. Due to the air-cooled construction of the chiller, water filling (30 l) is necessary only once.

Technical Data		Options
Fuels	Diesel (EN590), Gasoline (EN228)	Automatic forced venting based on bubble detection
Max. temperature control range	15...60 °C	
Temperature stability	$\leq \pm 0.5$ °C	
Fuel circulation capacity	240 l/h	540 l/h
Cooling power	2.2 kW at 10° C spread, differential pressure 0.5 ... 600 kPa*	Chiller unit (air-cooled) 3.5 kW
Heating power	1.6 kW	
Feed pressure to engine	max. 600 kPa	Pressure control modules
Return pressure	< 50 kPa @ 250 l/h	Pressure control module
Interfaces	Analog 0 ... 10 V, Digital I/O	Connection kit for 733S/735S; RS232 for customer specific solution
Ambient temperature	5 ... 50° C	
Power supply	230 V, 50/60 Hz	115 V, 60 Hz
Power consumption	2 kW	
Dimensions	600 x 980 x 420 mm (W x H x D)	
Weight (dry)	85 kg	

For further information please contact:

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