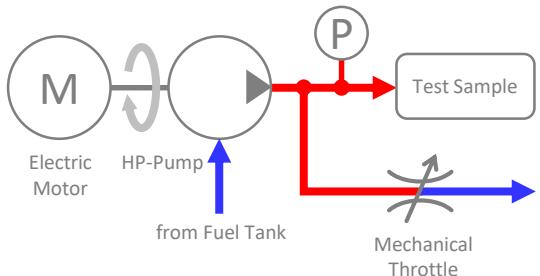


"2GVD" Universal Controller for High-pressure Fuel Pumps

For researchers facing "fuel high pressure control", which is closely related to research activities such as combustion, this is a control device that can upgrade existing equipment inexpensively and easily to improve its stability, safety, and reliability.

Common Cases

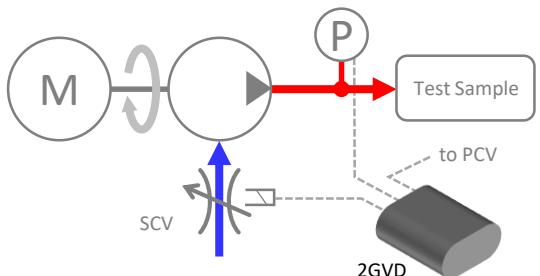


The high-pressure pump is operated by the electric motor, and the pressure is adjusted by the mechanical throttle valve installed downstream.

In this case, there are some problems like this.

- ✓ Extreme high fuel temperature caused by thermal conversion of PV energy into heat at the throttle valve.
- ✓ Lower stability, reproducibility, and safety due to passive control.
- ✓ Increasing cost and size by special valve that supports ultra-high pressure.

Solution with 2GVD



Without modifying the existing device, the SCV (Suction Control Valve) mounted on the pump is feedback controlled and adjust the fuel pressure to the target.

In addition, in the case of a system equipped with a PCV (Pressure Control Valve), it also can be controlled simultaneously^{*1} for further improvement of safety and controllability.

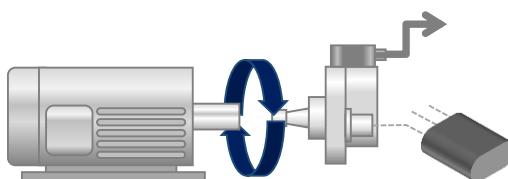
- ✓ Keeping normal fuel temperature thanks no thermal conversion of PV energy.
- ✓ Higher stability, reproducibility, and safety^{*2} thanks to active control.
- ✓ Reducing cost and size by no special equipment required.

*1 Harmony control respecting actual vehicle/engine is carried out.

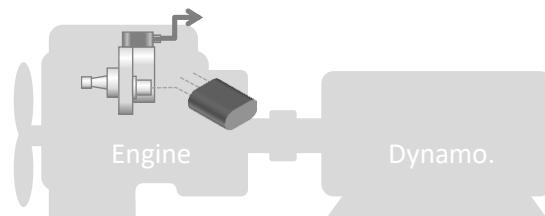
*2 Anomaly detection and safe stop functions such as overpressure and overheating is implemented.

Available for Various Tests

Because 2GVD is an extension device specialized for pressure control, it can [control various high-pressure fuel pumps that is power-coupled](#).



Pump coupled with electric motor



Pump coupled with engine with dynamometer

Compatible with almost all High-pressure Fuel Pumps

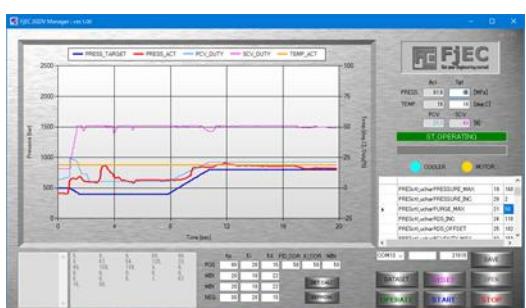
2GVD supports not only SCV/PCV mainly used for diesel engines, but also PSCV (Pre-Stroke Control Valve) type pumps used for GDI.

Furthermore, since the control parameter can be calibrated to comply to the performance characteristics of the pump,
[it is possible to control almost all existing High-pressure Fuel Pumps](#).

Safe remote operation by PC software

All operations such as Start/Stop, Monitoring, Setting, and Calibration be performed via PC software (freeware).

Remote control by communication [reduces the risk of danger when operating the high pressure equipment](#).



PC Software



Price : ASK

- PC is not included - We also accept customization e.g. extra functions.

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