HORIBA
Automotive Test Systems

FUEL FLOW MEASUREMENT SYSTEM
FQ-3200CR

FQ-3200CR
Fuel Flow Measurement System

The FQ-3200CR fuel flow measurement system precisely measures various fuel types for engines of up to 700 kW. The Coriolis measurement technology allows for the continuous and precise measurement of the fuel flow by directly measuring the mass flow. The FQ-3200CR is suited for a variety of testing applications, including durability, mapping and performance testing, and climatic and emission tests.

FEATURES

» Measurement of various fuel types
» Measuring range from 0 to 330 l/h (250 kg/h)
» Temperature control range from -30°C to 80°C
» Data communication with up to 20 Hz
» Continuous evaluation of statistical characteristics

KEY BENEFITS
Continuous Fuel Flow Measurement

The FQ-3200CR fuel flow measurement system is characterized by the Coriolis measurement principle. This technique allows for a precise measurement of flow rates up to 330 l/h. This, in combination with fuel conditioning mechanisms and the optional integrated plausibility check module, ensures highly precise and repeatable fuel measurement tests. Additionally, available options, such as temperature modules and the remote-controlled pressure regulator, maximize your testing flexibility.

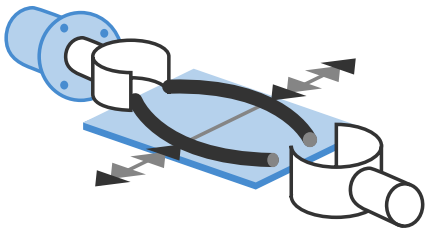
SIMPLE
- Automated ventilation and purge function
- Automated fuel exchange
- Optional integrated plausibility check module

PRECISE
- Precise measurement at fuel flow rates above 1 kg/h
- High repeatability

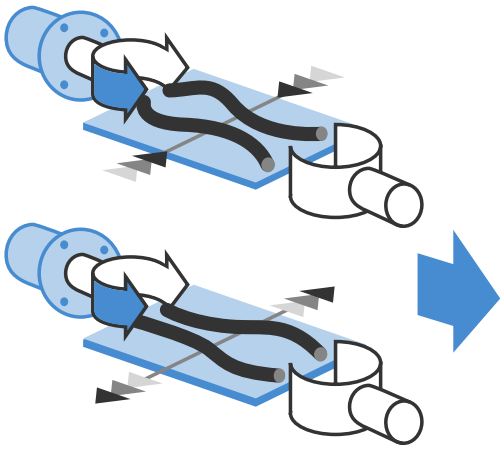
FLEXIBLE
- Standard interfaces for easy automation integration
- Wide range of optional modules

MEASUREMENT PRINCIPLE
Coriolis Flow Measurement Principle

A measuring tube is activated at a defined frequency by a transmitter. The mass flow inside this tube generates a so-called Coriolis force, which produces a rocking motion. This motion can be detected as a phase difference by two sensors and is directly proportional to the mass flow.



Without Flow
- Movement of the tubes to inwards: no flow
- Movement of the tubes on the outside: no flow



With Flow
- Direction of Coriolis force with flow and movement of the pipes inwards
- Direction of Coriolis force with flow and movement of the pipes on the outside

THE HORIBA GLOBAL NETWORK

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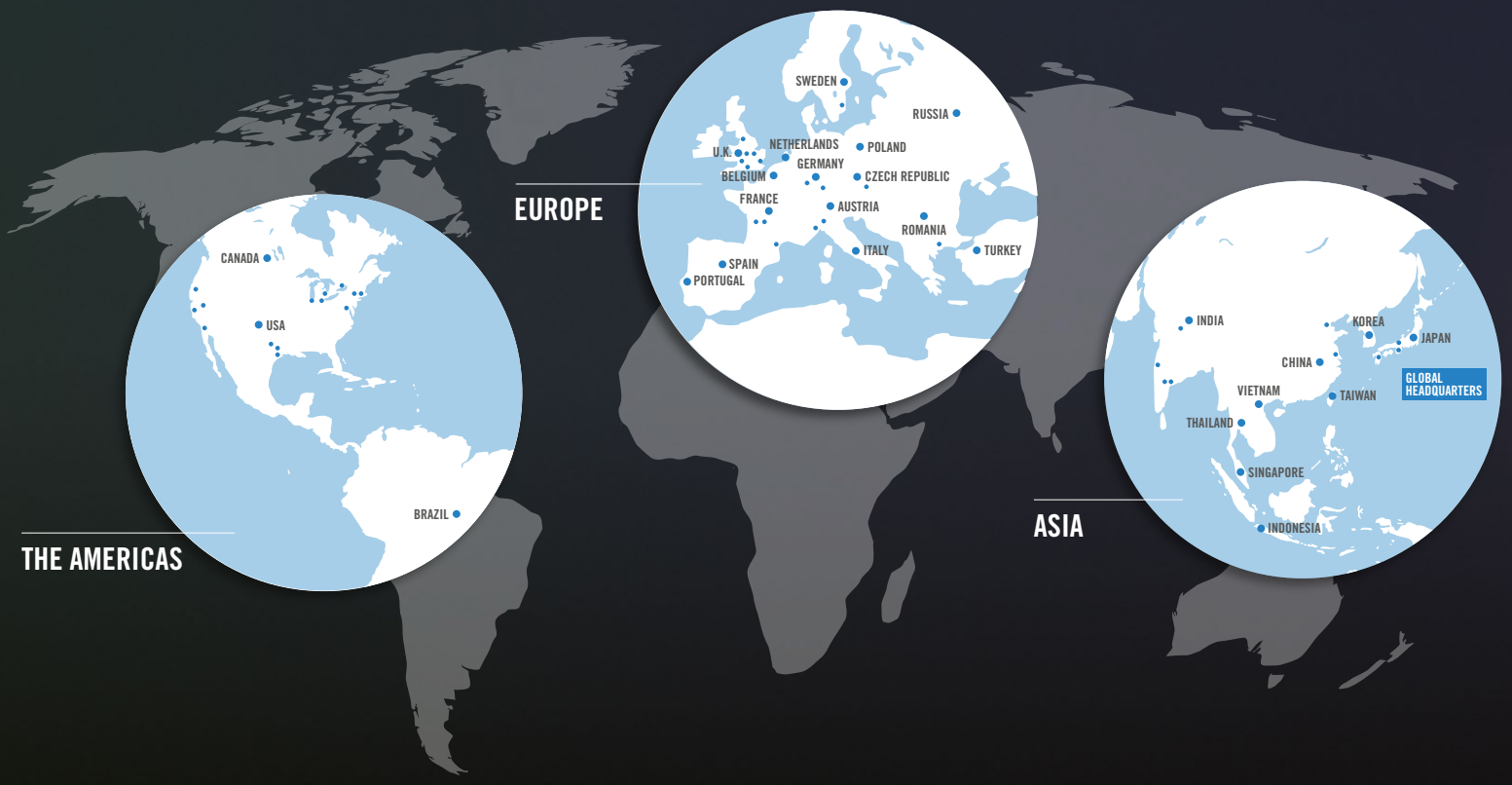

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