EMISSIONS

ELECTRIFICATION

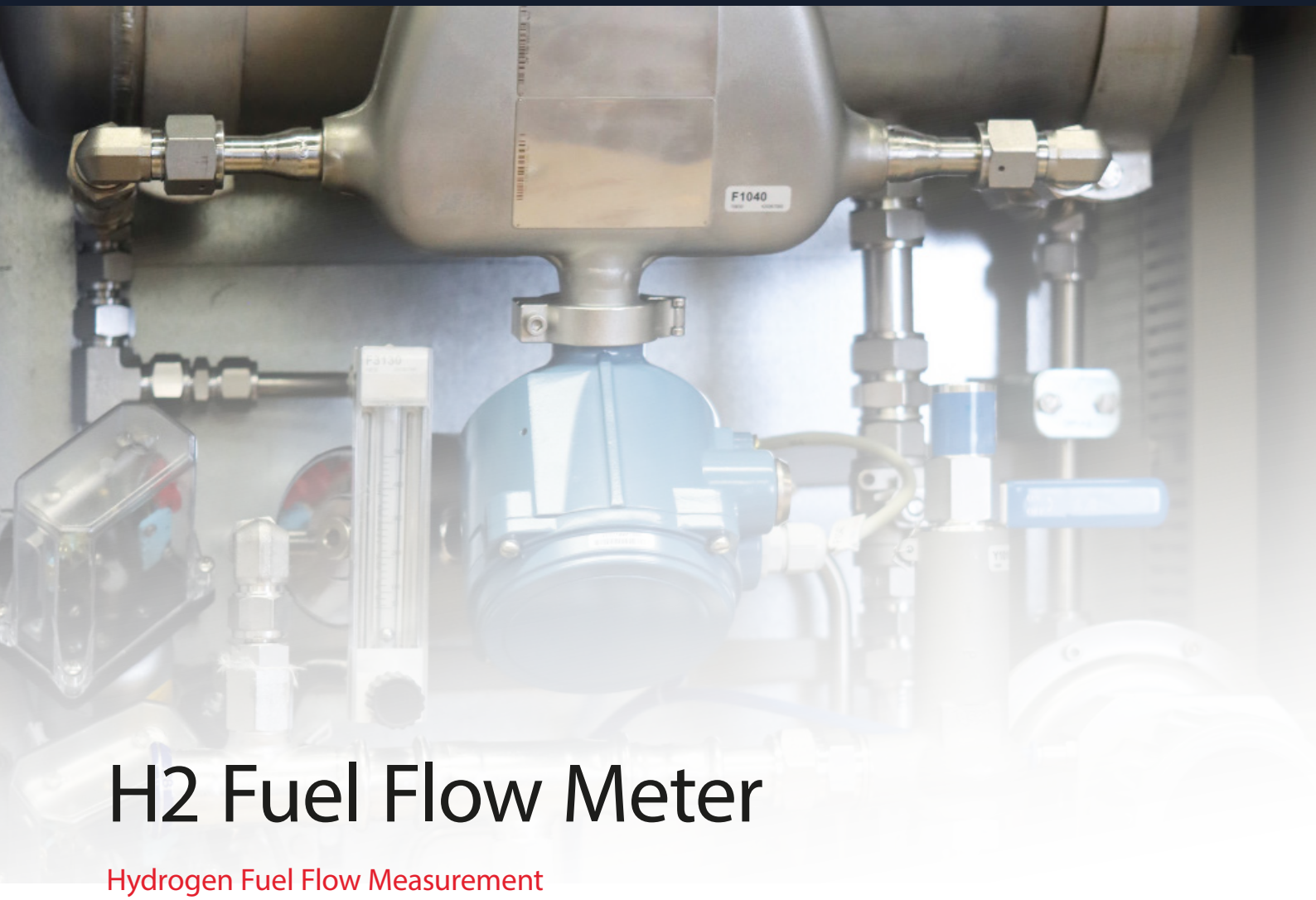
CAV

DATA

HYFQ-2000 SERIES

Solutions for Hydrogen
Fuel Flow Measurement

HORIBA
Automotive



H2 Fuel Flow Meter

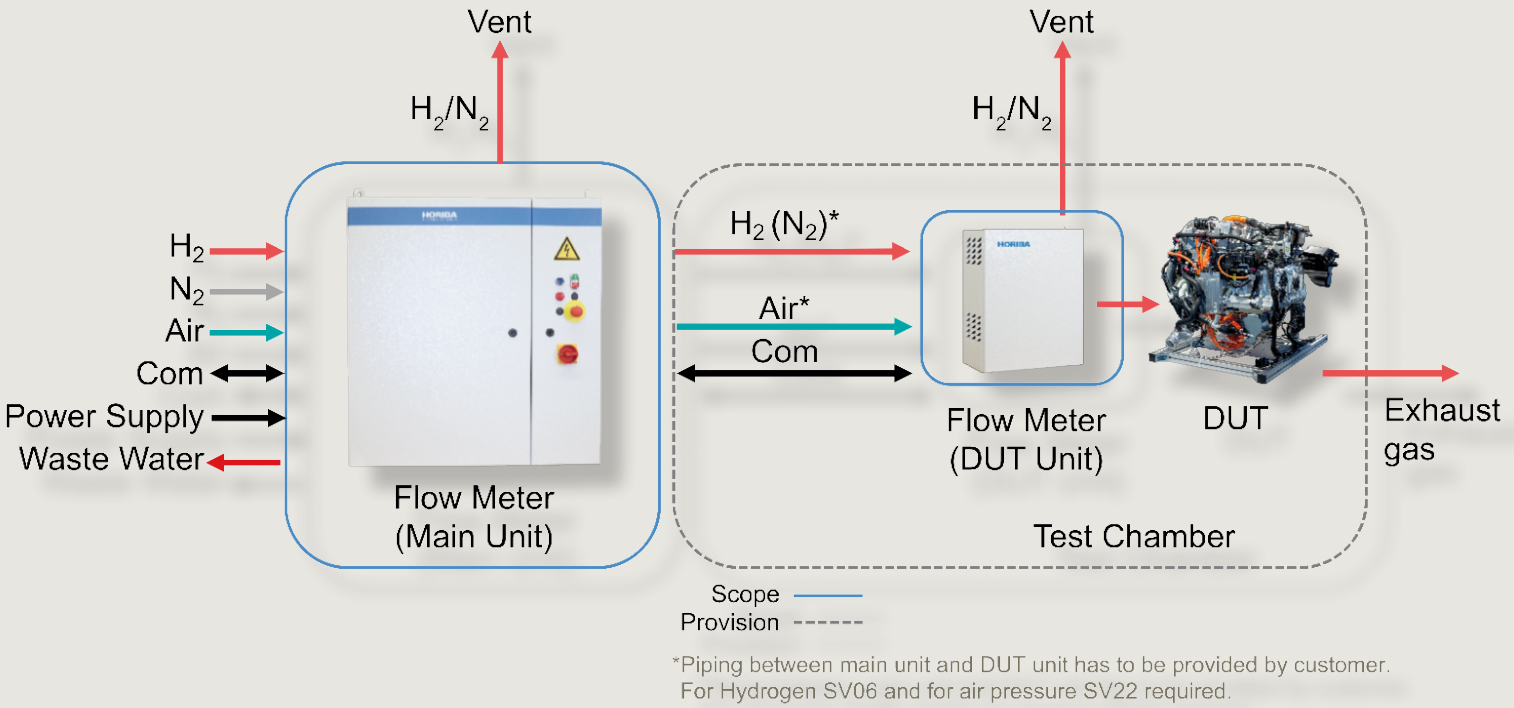
Hydrogen Fuel Flow Measurement

The HyFQ-2000 fuel flow measurement series precisely measures the hydrogen consumption of either H2 internal combustion engines or fuel cell vehicles up to 500 kW. The Coriolis measurement technology is suitable for hydrogen applications allowing real-time fuel flow measurements with an outstanding accuracy even in highly dynamic test cycles.

HORIBA´s HyFQ-2000 series is a powerful tool for a wide variety of different testing applications including vehicle certification, engine mapping and performance testing as well as climatic and emission evaluations.

FEATURES

- Safe and automated purge functionality
- Automated pressure test function
- Precise measurement for wide flow range
- Fast and automated measurement results
- Standard interfaces for easy automation integration
- Continuous evaluation of statistical characteristics
- STARS Device Driver license included
- Communication interface protocol AK over Ethernet



KEY BENEFITS

Reliable Flow Measurement for R&D Applications and Vehicle Certification

The shift of automotive technologies from ICE to electrified powertrain solutions brings major challenges to the industry. Existing testing facilities need upgrades to fullfill basic requirements for the development of future driveline technologies based on hydrogen as the primary energy source. HORIBA's HyFQ-2000 series enable test facilities to expand their capabilities with precise and reliable fuel flow measurement for hydrogen.
As the design is optimized for a small footprint, retrofits of pre-existing ICE test cabinets are possible. This saves money and provides a quick and efficient solution to respond to a drastically changing and developing market.

SAFE

- Intrinsic safety due to automated pressure test function and purge function
- Redundant H_2 shut-off valves
- Signal inputs for emergency stop
- Adjustable limits for pressure output

PRECISE

- High repeatability due to precise measurement for wide flow range
- 1:100 measurement range with ≤ 1% accuracy of measured value
- Fully compliant to the accuracy requirements as stated in ISO23828, SAE J2572 and GB/T35178

FLEXIBLE

- Standard communication interface
- Fast and automated measurement results
- Version with different measuring and pressure ranges available
- Standard AK-based communication interface
- Easy integration with HORIBA's Test Automation Platform STARS

SPECIFICATIONS*

		HYFQ-2250LP	HYFQ-2500LP
POWER	[KW]	250	500
OPERATING RANGE	[KG/H]	up to 20	up to 40
BASEMENT ACCURACY MASS FLOW SENSOR	[%MV]	≤ 0.35	≤ 0.35
ZERO POINT STABILITY	[KG/H]	0.005	0.01
FUEL INLET PRESSURE	[BAR]	40 (option 80)	40 (option 80)
FUEL OUTLET TO ENGINE PRESSURE	[BAR]	up to 25 (option 60)	up to 25 (option 60)

Other ranges on request.

		GENERAL SPECIFICATIONS
AMBIENT/MEDIA TEMPERATURE MAIN UNIT DUT UNIT	[°C]	 +5 … +40 -20 … +80
INTERFACE		Ethernet with AK protocol
FUEL COMPATIBILITY		Hydrogen
POWER SUPPLY		AC 100-120 V/ 200- 240 V +-10%, 50- 60Hz +-6%
DIMENSIONS MAIN UNIT DUT UNIT	[MM]	 1150 x 1300 x 375 [WxHxD] 421 x 550 x 308 [WxHxD]
MEDIA SUPPLY		Fuel Gas Hydrogen, Inert Gas Nitrogen, Control Air
CONDITIONS		The specified values are achieved by ensuring the optimal operating conditions

* Technical specifications are subject to change.

HORIBA Automotive, a business segment within the HORIBA Group, provides advanced mobility leadership and comprehensive engineering and measurement expertise to support the gradual shift from traditional propulsion, to fully electrified solutions.

horiba.com/automotive

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