

Datasheet

GH2+ - Flow Measurement System for Gaseous Hydrogen

Product Code: 540/1048 KK/RK-4-X-X-X-X

The GH2+ is a legal-for-trade custody transfer measurement system for gaseous hydrogen, designed as a flow measurement solution for H2 deliveries via hydrogen trailer vehicles. The system is characterized by its straightforward operation, high pressure ratings, recalibration without vehicle downtime, and seamless integration into existing infrastructure.

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|---|---|
| Medium: | Gaseous Hydrogen |
| Operating Pressure Range: | 20 to 540/1048 bar |
| Flow Range Qmin to Qmax: | 0.17 to 4.17 kg/min |
| Separation Flow Qt: | 0.83 kg/min |
| Cut-off Limit: | 0.033 kg/min |
| Measurement Accuracy: | 1.5 % for 4.17 kg/min ≥ Q ≥ 0.83 kg/min 2.5 % for 0.83 kg/min > Q ≥ 0.17 kg/min |
| Operating Temperature for Pressurized Parts: | -50 to +120°C |
| Gas Temperature Range: | -40 to +55°C |
| Mechanical/Electrical Environment: | M2/E2 |
| Power Supply: | 12-24 VDC +/-10 % |

Components and Parts

Coriolis Mass Flow Meter RHM04

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|---|--|
| Housing Material: | 1.4301 / SS 304, IP 65 |
| Material in Contact with Medium: | 1.4571 / SS 316Ti |
| Process Connections: | Autoclave 9/16" MP (13/16"-16 UN) |
| Approvals: | ATEX: <Ex> II 2G Ex ib IIC T6...T1 Gb; IECEX: <Ex> ib IIC T6...T1 Gb |
| | Certificate No.: IECEX BVS 17.0063 (Ex safety regulations must be complied with!) |
| | Execution according to PED 2014/68/EU Art4 (3) SEP |



Transmitter RHE28/RHE42

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| Housing: | Aluminum |
| Protection Class: | IP 65 |
| Operating Temperature: | -20 to +60°C |
| Outputs: | 2 analog outputs 4-20 mA, active / passive; 2 frequency / pulse / status outputs 2 digital status outputs |
| Inputs: | 2 digital signal inputs; 1 analog input 4-20mA, active All analog inputs/outputs according to NAMUR NE43 All digital inputs/outputs according to DIN IEC 60946 Interfaces: Modbus RS485, HART |
| Power Supply: | 12-24 VDC +/-10%, max. 4W |

Controller C401/C406

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|-------------------------------|--------------------------------|
| Housing: | Aluminum |
| Protection Class: | IP54 |
| Operating Temperature: | -25 to +55°C |
| Operation: | via 6 push buttons, USB, RS485 |
| Billing Unit: | kg / Nm ³ |
| Power Supply: | 16-27 VDC +/-10 % |

Electrical Wiring

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|---|-------------------------------------|------------|
| Connector: | Various connector options available | |
| Cable length between components: | Coriolis and Transmitter | 3 meters |
| | Transmitter and Flow Controller | 3 meters |
| | Flow Controller and Trailer | 3.5 meters |
| Can be customized upon request | | |

Certifications

Conformity Assessment: Valid for 2 years

Documentation

- Maintenance Manual
- User Manual
- Calibration Certificate from TrigasFI GmbH
- Declaration of Conformity

The GH2+ hydrogen flow measurement system is delivered ready for installation, fully tested, and accompanied by all necessary documentation for legal metrology—developed and manufactured by TrigasDM, your specialist in precise hydrogen measurement.

Contact us – we are happy to advise you personally and find the right solution for your application.