



A Chart Industries Company

Metering Systems LH2



For consistent accuracy and lowest life-cycle costs, FLOW Instruments' metering systems for liquefied Hydrogen are the market's unrivalled choice.

Obtain the best solution from Flow Instruments.

Flow Instruments sets a new standard in the field of flow measurement by introducing the Flowcom 3000 FLOW Metering system for liquefied hydrogen – currently the best metering solution for mobile equipment available on the market. The system is based on a high precision metering section (orifice) with no moving parts and accurate density compensation.

Application specific and according to your needs

FLOW Metering systems are engineered for the specific needs of measuring liquefied Hydrogen. Our metering system is approved by the German PTB.

Accurate flow measurement and lowest lifecycle costs

Our FLOW Metering system for liquefied Hydrogen covers a flow rate of 400-2000 kg/h and a pressure range up to 40 bar.

Flowcom 3000 is at the heart of our metering system. This electronic device offers very high durability and diagnostics without any additional tools. The rugged Flowcom 3000 flow processor provides an intuitive user interface and allows for easy operation.

Components



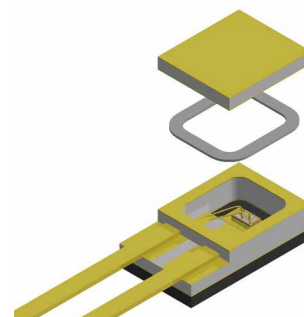
Flowcom 3000 electronic



Meter section



DP-transmitter



Temperature measuring diode

Options



Bluetooth-printer



Large stainless steel housing for Flowcom 3000, printer and ex-barriers

Features

Benefits

No moving parts

- Lowest life cycle cost (30 % cost saving on 10 years or more)
- No replacement of meter section during the lifetime
- Life time warranty on the meter section

Highest meter accuracy

- Long term stability over years
- No negative drift because of no wearing

FLOW processor

- Type approved for Germany (PTB)
- Parameters can be easily changed
- Easy to software update

Integrated type approved Data logger

- No ticket printer needed
- More than 4000 deliveries are stored
- Every delivery including all parameters
- Data can be transferred by Bluetooth or wire

SD card slot

- Easy download of configuration data for service issues
- Easy data upload without direct impact of type approval
- Data changes without braking seals, no recalibration needed

Soft key interface

- Intuitive operation for diver and service people

Inputs and outputs

- Valve shut-off can be controlled by the Flowcom

Multi color display

- Easy and convenient handling during filling procedure
- All delivery parameters visible at a glance
- Clear error messages visible by red indication or flashing display.

Stainless steel housing

- Zero corrosion/long lifetime
- Easy access to pc-boards for calibration reasons

Ex requirements Large stainless steel housing

- To meet the ex-requirements, this special housing is suitable to install Flowcom 3000 electronic, ex-barriers and printer
- This housing has to be mounted outside the ex-zone.

Bluetooth-Printer

- Wireless-printer for easy handling
- Can remain in the drivers cabin

Bluetooth Data transfer

- Direct invoice after delivery

Options

Printer

- Matrix printer including power supply and stainless steel housing
- Bluetooth-Printer with different accessories

Bluetooth

- Internal and external modul to transfer data for example to a handheld

Option boards

- Analog output board - 2 outputs with 4-20 mA

Technical specifications

Measuring system

DP-metering system	Flowcom 3000
Metering section	SWM
Length	approx. 710 or 900 mm
Inner diameter	DN 40 / DN 50
Material	Stainless steel
Flow range	400-2000 kg/h / 1:5
Pressure range	PN 40
Accuracy class	2.5 % (based on national regulations)
Smallest delivery quantity	500 kg
Pattern approval for Germany	in preparation
Display units	kg, liter, Nm ³ , gallon, lbs (others on request)
Display quantity	with 2 decimals
Power supply	12 or 24VDC
Dimensions stainless steel housing	width x height x depth: 650 x 450 x 290 mm / 25,6 x 17,7 x 11,4 inch
Total weight of the system	35 kg

Operating conditions

Temperature range medium	-254 to -241 °C
Temperature range ambient	-25 to +55 °C
Mechanical ambient conditions during transport	M3
Electro magnetically ambient conditions	E3

Note: The electronic, printer and the Ex-barriers must be mounted outside the classified area (Ex-Area).

Contact

Flow Instruments & Engineering GmbH
Siemensstrasse 19
40789 Monheim am Rhein
Germany

Tel.: +49 2173-9605 9-0
Fax: +49 2173-9605 9-55
flow.sales@chartindustries.com
www.flow-instruments.com