



A Chart Industries Company

Metering Systems **LIN LOX LAR CO₂**



For consistent accuracy and lowest life-cycle costs, FLOW Instruments' metering systems for Nitrogen, Oxygen, Argon and CO₂ are the market's unrivalled choice.

Accurate flow measurement and low maintenance costs

Our standard FLOW metering systems cover flow rates from 1,000 to 70,000 kg/h (2,200 to 154,000 lb/h) with further sizes available upon request. Flowcom 3000 is the heart of our metering system. This electronic device combines the best components for temperature and differential pressure measuring, offers very high durability and diagnostics without any additional tools.

Handling of Gas return compensation for CO₂:

To ensure that the returned gas from a customer tank to the trailer will be calculated, the Flow metering systems can be equipped with a gas return compensation' system. Via this installation, the amount of gas that goes back to the trailer is automatically subtracted from the delivered total.

Fields of application:

The Flowcom 3000 is available for trailer as well as for stationary filling stations.

Custom solutions and special applications are available on request. Please contact our customer service team for further information.

Components



FC 3000 electronic



Meter section



Temp probe

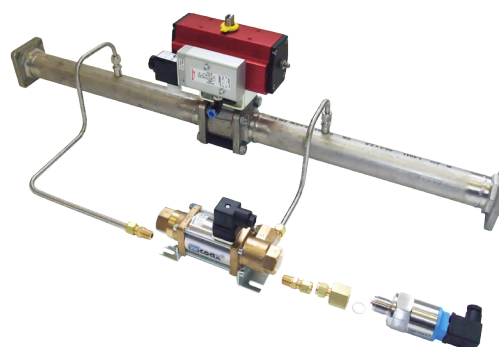


DP transmitter

Options



Printer in stainless steel housing



CO₂ gas return compensation kit

Features

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.
- Accuracy better than +/- 0.5%
- No negative drift because of no wearing.

FLOW processor

- Type approved for Europe (MID), USA (NTEP), China, South Africa, Australia, Russia and more.
- Parameters can be easily changed
- Easy to software update

Integrated type approved

- No ticket printer needed

Data logger

- 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 breaking seals, no recalibration needed

Soft key interface

- Intuitive operation for driver and service people

Inputs and outputs

- Pump shut-off can be controlled by the Flowcom
- Valve controls can be operated by the Flowcom

Pump smart

- Massive cost reduction on pump maintenance.
- Forces driver to ensure proper cool-down prior to turning on pump
- Pump operation shut-down if the tank runs dry.

Pump hour counter

- Service warning – temporarily locks out pump if ignored

Pulse output

- Counted quantity can be transmitted to a PLC system at truck loading stations

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

External calibration connection

- Every Flowcom can be easily connected to the Flow Instruments special calibration system to reduce the downtime of the trailer to a minimum.

Alphanumeric keypad

- Setup parameters can be entered easily

Options

Printer

- Matrix printer including power supply and stainless steel housing
- Portable Bluetooth printer.

Bluetooth

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

Option boards

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

Gas return compensation

- For CO₂ application

Technical specifications

Metering section

Measuring range	1,000 to 70,000 kg/h (2,200 to 154,000 lb/h) (Standard ratio 1 to 5), (with two DP transmitter up to 1 to 25)
Sizes	DN 12 - DN 80 / ½ " - 3" (other sizes on request)
Material	Stainless steel
Approvals	European type approval based on MID, China, South Africa, USA, Russia, Australia and more
Units	kg, liter, Nm ³ , gallon, lbs, (others on request)

Flowcom 3000 electronic

Dimension of the Electronic	250 x 250 x 160 mm / 9,85 x 9,85 x 6,3 Inch
Water / dust protection	IP 65
Coloured display-size	5.7"
Data logger	Approved storage of 4000 delivery strings
Digital inputs	4, electrical isolated (9-36 Volt DC)
Digital outputs	5, type transistor PNP (Max 1,5 A)
Serial interfaces	3 x RS232 (electrical isolated with overvoltage protection)
Analog inputs	5 inputs, actively powered, Range 0,1-25 mA
Cable glands	9 x M16 x 1.5
Weight	4.5 kilograms
Back-up battery	Battery – lithium button 3V Type 2032
Languages	English, German, Chinese, Spanish, French, ...

Operation conditions

Temperature	-25 °C up to 55 °C // -13 °F up to 131 °F
Voltage	9-36 VDC
Power consumption without printer	max. 10 Watt
Power consumption printer	max. 50 Watt / 2 A at 24 Volt

Contact

Flow Instruments & Engineering GmbH
Heiligenstock 34 c-f
42697 Solingen
Germany

Tel.: +49 212 7005-0
Fax: +49 212 7005-55
flow.sales@chartindustries.com
www.flow-instruments.com