

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 1000 to 70.000 kg/h (2200 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:

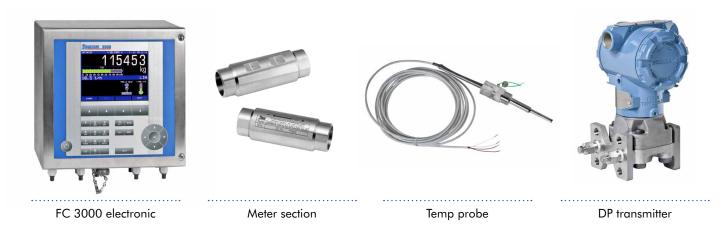
To ensure that the returned gas from a customer tank to the trailer will be calculated, the Flow metering systems can be equipped with a gas return compensation' system. Via this installation, the amount of gas that goes back to the trailer is automatically subtracted from the delivered total.

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



Options







CO₂ gas return compensation kit

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. 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 easely 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 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 – temporarely 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	

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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 CO ₂ application	

Quality Management System as per ISO 9001:2008 Certified from TÜV NORD CERT GmbH

Technical specifications

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Metering section		
Measuring range	1000 to 70.000 kg/h (2200 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, Nm³, 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 0,1-25mA	
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	

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