

OPTIGAS 5050 C / 5010 C

mass flowmeter

... for CNG and LPG gas

- Two sizes: S 15 (50 kg/min. flow) or S 25 (120 kg/min.)
- Signal converter (transmitter) or MODBUS Direct Data Communication DDC outputs
- High accuracy and wide measuring range
- Compact and low cost
- Easy to install and commission
- Developed in conjunction with dispenser manufacturers



The mass meter for gas dispensers...



Gas dispensers for cars and public service vehicles



From the Ontario Police department to the Southern Texas regional planning board. From Argentina to Bangladesh and the cities of Shanghai and Beijing:



CNG and LPG are becoming the clean fuels of choice. In many countries gas prices carry less tax to encourage drivers to support environmental protection efforts.

Turbines versus Coriolis



In gas station dispensers, the accuracy of turbines is limited by their inlet and outlet runs. Not so with Coriolis. The AGA attests Coriolis meters a higher intrinsic accuracy and repeatability.



Dispenser "down time" is also reduced with Coriolis technology, since unlike turbine meters, they have no seals, bearings or reciprocating parts to wear. This eliminates servicing requirements and extends the period between calibration tests.



Additionally, the KROHNE OPTIGAS meter incorporates advanced diagnostic software that allows the meter performance to be monitored over time, allowing any problems to be identified quickly and precisely.



LPG CNG

... and a wide scope of other applications



Butane / Propane bottles for household use

In most Southern European countries, in the Middle East, India, Asia and South America, gas cylinders are the sole source of energy for cooking and heating. OPTIGAS is ideal for accurate filling of gas bottles in the main depot.

In airports, railway stations and many industrial plants, people-movers and forklift trucks run on gas from gas cylinders. Since the gas is sold per bottle with a defined weight, dispensing in the depot has to fulfill custody transfer specification



Gas cylinders

Industrial and hospital gases require accurate dispensing in the gas plants. Here, too, OPTIGAS proves superior to turbine meters in terms of long-term accuracy and repeatability. With no moving parts. Gas filling stations in industrial works generally use horizontal storage tanks which are filled from the gas delivery truck. Here, too OPTIGAS can offer a suitable solution. not only for the on-site dispenser, but also for the storage tank.



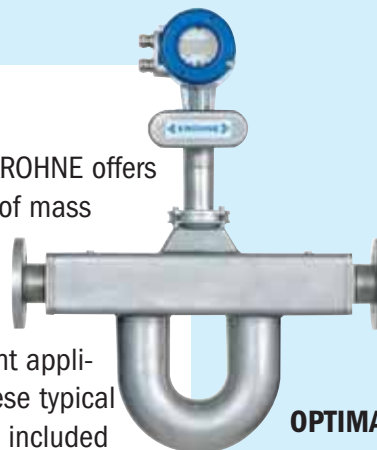
The most modern calibration facilities

With 25 years of experience in Coriolis and numerous patents for innovations, KROHNE has the expertise you need.

All OPTIGAS meters are calibrated over their full flow range using a test system accredited by the UKAS organisation. As standard, each meter is supplied with an individual test certificate.

From the well to the gas station, from the gas plant to the kitchen, KROHNE has the right solution.

Of course, KROHNE offers a full range of mass flowmeters for other fuel gas measurement applications. These typical applications included medium pressure gas transmission pipelines and low pressure supply into compressor stations.



OPTIMASS 8000



OPTIMASS 7000

OPTIGAS 5050 C / 5010 C Massflow meter for Gas Dispensers

Technical data

Application conditions

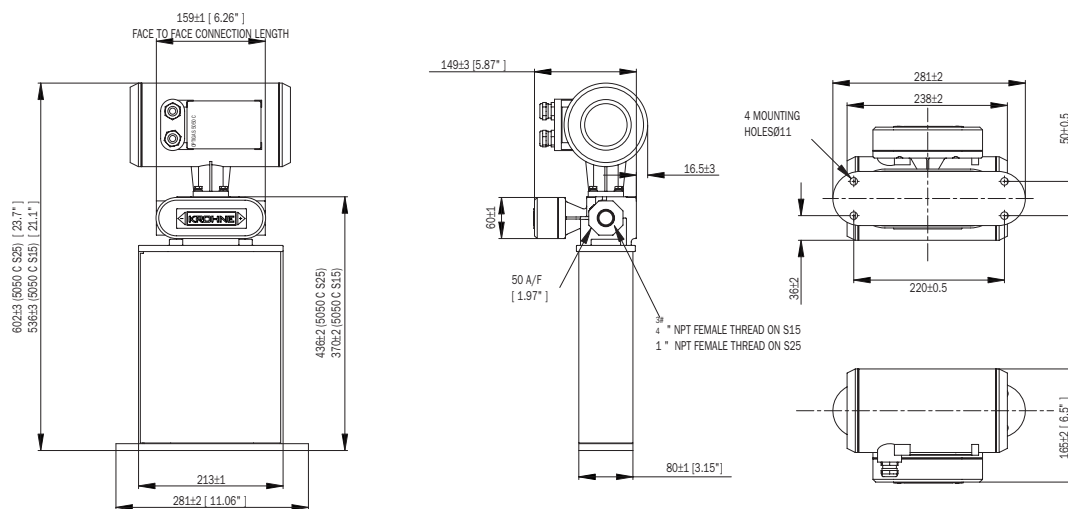
Fluid	Compressed Natural Gas (Methane) or Liquefied Petroleum Gas (Propane & Butane) Liquefied natural gas and other gasses
Flow range capacity	1...50 kg/min. / 2.2...120 lbs/min. (S 15) or 2.4...120 kg/min. / 5...265 lbs/min. (S 25)
Accuracy	± 0.5% of total batch; where minimum actual flow rate is 1 kg/min. / 2.2 lbs/min. (S 15) or 2.4 kg/min. / 5 lbs/min. (S 25)
Repeatability	±0.3% of actual flow rate + zero stability (for a typical batch size of >10 kg/22 lbs)
Zero stability	±0.015% of flow range capacity
Pressure rating	350 barg / 5080 psig (static), 300 barg / 4350 psig (cyclic)
Process fluid temperature	-40... +93°C / -40...+200°F
Ambient temperature	-40...+55°C / -40 ... +130°F (compact converter / integral transmitter) or -40 ... +60°C / -40 ... +140°F (remote converter / field mount transmitter)

Mechanical data

Process connections	3/4" (S 15) or 1" (S 25) NPT female thread in body block
Tube material	Stainless Steel 1.4404 / 316L
Body casting material	Stainless Steel 1.4401 / 316L
Outer case	Stainless Steel 1.4301 / 304L
Converter housing	Epoxy coated aluminum
Mounting	Integral lugs from bottom of case 4x11 mm / 7/16" at 220x50 mm / 8.7x2" centers

Dimensions and weights 5050 C / 5010 C

Weight	approx. 13 kg / 29 lbs (5050 C S 15) approx. 8.5 kg / 19 lbs (5010 C S 15)
--------	---



Dimensions in mm and inches

Electrical (5050 C)

Power supply	100 ... 120 or 200 ... 230 v ac or 24 V DC (specify at time of order)
Display	2 line; 10 character LCD
Functions shown in display	Choice of: mass flow, mass total, referred volume flow, referred volume total, temperature or diagnostics
Programming	3 user keys or via magnetic switches
Outputs (software assigned to any measurement function)	Single or dual phase pulse (1 KHz) and 4...20 mA with HART
Input	Binary control input (e.g. for zero calibration or totalizer reset)
Converter mount	Integral onto sensor or remote via 4 core cable

Electrical (5010 C)

Power supply	12 V DC via Ex approved barrier
Programming	Via Modbus
Outputs (called from register of any measurement function)	MODBUS via Ex approved barrier

Diagnostics (5050 C & 5010 C)

Functions	Operational measurement and service
-----------	-------------------------------------

Approvals

Hazardous area	ATEX Zone 1 T1...T4 FM Class I Div 1
Custody transfer	PTB Germany NTEP USA (pending)

United Kingdom

KROHNE Ltd.
Rutherford Drive
Park Farm Industrial Estate
Wellingborough,
Northants NN8 6AE, UK
TEL.: +44(0)19 33-408 500
FAX: +44(0)19 33-408 501
e-mail: info@krohne.co.uk

USA

KROHNE Inc.
7 Dearborn Road
Peabody, MA 01960
TEL.: +1-978 535-6060
FAX: +1-978 535-1720
e-mail: info@krohne.com

Other countries

KROHNE Messtechnik
GmbH & Co. KG
Ludwig-Krohne-Str.
D-47058 Duisburg
TEL.: +49(0)203-301-0
FAX: +49(0)203-301-389
e-mail: info@krohne.de

www.krohne.com

Model 5010 C S XX with DDC Modbus output – use height dimension for sensor body only excluding converter

Note: Both meters have the same external dimensions and mounting hole positions.

KROHNE