

G65 and G100 Diaphragm Meters

The diaphragm meters G65 and G100 are designed for industrial applications. The design is based on high measuring accuracy and a long lifetime and are maintenance free. This performance is made possible through the principle of two measuring chambers, which are driven by the pressure of the gas. The measured volume is displayed on a numeric totalizer.

Features

Measuring Range	G65	Qmin 0.65 m ³ /h Qmax 100 m ³ /h
	G100	Qmin 1.00 m ³ /h Qmax 160 m ³ /h
European Metrological Approval (71/318/EEC) (04/22/EC)	Approval achieved by the Dutch NMI Approval N° NL79 E53 Approval N° T10100	
Temperature Range	-5°C to +35°C (-10°C to +40°C accordant with MID)	
Maximum Operating Pressure	500 mbar	
High Temperature Loading (HTL) Connections	The meter can be delivered, as an option, with a HTL version PNO.1 Double and single flange connections, DN80 for G65 and DN100 for G100 All according to DIN2642 or DIN2576 (G100 single pipe)	
Coupling / Index box	Stuffing box with Sardine Index box or Magnet Coupling with RF1 Index box 8-digit index with IP 54 protection UV resistant cover Fitted with a reflecting disc in the first drum to facilitate preiodical checks	
Reverse flow device	The meter is equipped with a device which prevents registration of reverse flow	
Housings	Welded (G65 & G100) or Drawn (G65) with powder coating	
Colour	RAL 7032 or RAL 7035	



> *Single Pipe
welded type*



> *Double Pipe
welded type*



> *Double Pipe drawn type*

- > *Long term accuracy and reliability*
- > *Robust, maintenance free meter*
- > *MID approved*
- > *Wide measuring range*
- > *Low pressure loss*

Technical design

Totaliser

A direct or indirect driven register, depending on the type of coupling between the measuring unit and the index box, indicates the passed volume of gas. Both index box-constructions are designed in such a way that it's almost impossible to access the registers without damaging them.



> *Sardine-Indexbox*



> *RF1-Indexbox*

Measuring unit

The measuring unit consists of two chambers with synthetic and gas-tight diaphragms, which is moved by the differential between the inlet and outlet pressure. A transmission gear and a magnetic coupling / stuffing box transfer the reciprocating motion to the mechanical index. The unit is built in a robust steel coated casing, either drawn or welded.



> *Measuring unit*

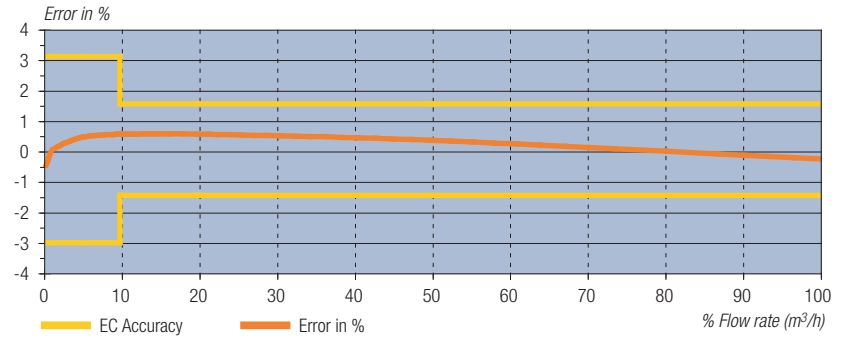
Technical design (cont'd)

Accuracy

In accordance with the EC and OIML standards.

In line with EC standards, the tolerance of acceptance is +/-3 % from Qmin to 0.2 Qmax and +/-1.5% from 0.2 Qmax to Qmax.

Typical error curve



Every meter undergoes a 100% inspection for function, accuracy and safety.

All meters are EN1359 compliant and have DVGW approval.

LF pulse-emitter

Meter versions with the sardine index box are standard equipped with a LF pulse-emitter.

1 pulse is 0.1m³ (G65) or 1 m³ (G100).

The 4 pins male-connector is fixed in a "D"-hole in the index box. The female contra- connector is supplied with each meter.

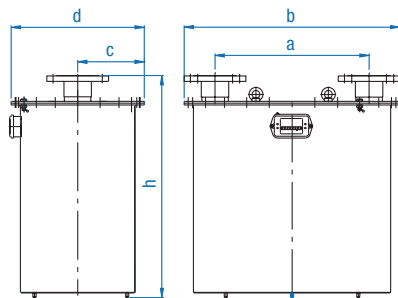
The RF1 index box is available with a permanent magnet in one of the index drums as standard and can be refitted with a pulse transmitter (reed switch).

G65-G100 vertical version

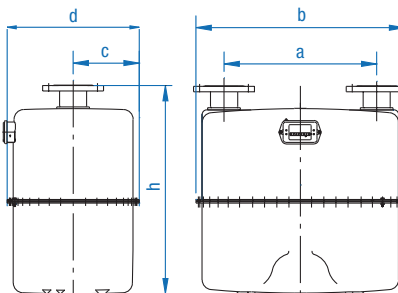
Dimensions and Technical Data

Type	Nozzle type	Q min m³/h	Qmax m³/h	Vol. dm³	Pmax bar	Flange DN	a mm	b mm	c mm	d mm	h mm	Weight kg
G65	Welded	0.65	100	55	0.5	80	500	700	216	436	721	65
G65	Welded	0.65	100	55	0.5	80	640	840	216	436	805	69
G65	Drawn	0.65	100	55	0.5	80	500	700	217	445	687	48
G65	Drawn	0.65	100	55	0.5	80	640	840	216	445	790	52
G65	Welded - EP	0.65	100	55	0.5	80	N/A	700	216	436	737	71
G100	Welded	1	160	123	0.5	100	675	894	257	532	885	105
G100	Welded	1	160	123	0.5	100	710	894	257	532	885	105
G100	Welded-EP	1	160	123	0.5	100	N/A	894	257	532	920	113

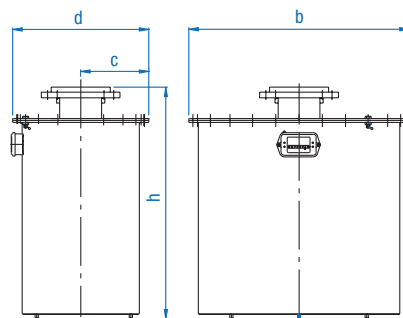
EP = Single nozzle.



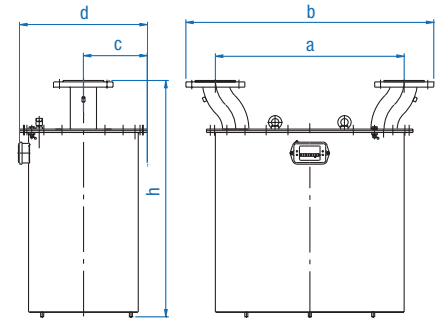
> Double Pipe Welded (500)



> Double Pipe Drawn (500)



> Single Pipe Welded



> Double Pipe Welded (640)

G65 horizontal version

This version, which has also the same G65 internal parts as the other G65 meters, is standard equipped with magnet coupling and RF1-Index box.

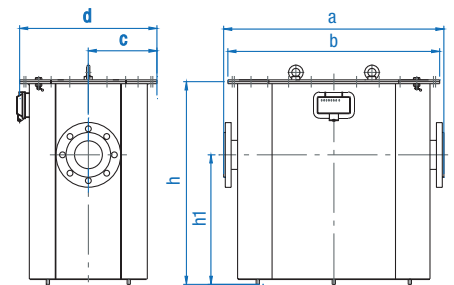
Dimensions and Technical Data

Type	Nozzle type	Q min m ³ /h	Qmax m ³ /h	Vol. dm ³	Pmax bar	Flange DN	a mm	b mm	c mm	d mm	h1 mm	h mm	Weight kg
G65	Welded	0.65	100	55	0.5	80	680	654	212	432	400	626	69

Options

On request the following options are possible

- > Thermowell
- > Other flange dimensions
- > Backrun stop to prevent reverse-flow
- > LF pulse-emitter with Binder connector (normal or anti-fraud) on the sardine index box versions
- > Retrofit pulse-emitter on the RF1 index box versions
- > Counter flanges for both Double and Single Pipe versions



> G65 horizontal version

Information to be specified when ordering

- Nature of gas
- Size of meter (G65 or G100)
- Coupling index box type
- Maximum working pressure
- Version (horizontal or vertical)
- Connections type
- Accessories and options

About Itron Inc.

Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas and water meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services. To know more, start here: www.itron.com

For more information, contact your local sales representative or agency.



Itron GmbH
Hardeckstrasse 2
D-76185 Karlsruhe
Germany
Phone: + 49-721 5981 0
Fax: + 49-721 5981 189
www.itron.com