

Gallus 2100 TCE

THE ONLY ELECTRONIC TEMPERATURE
COMPENSATED DIAPHRAGM GAS METER IN THE WORLD!



Highest available accuracy using temperature conversion and error curve correction, calculation of conversion factor with all parameters and sophisticated temperature measurement.

Prepared for AMR - Automatic Meter Reading

Flonidan DC A/S

Flonidan DC, located in Horsens Denmark, is a leading manufacturer of gas conversion devices, automatic meter reading devices, temperature compensated domestic gas meters and gas stations. After the recent acquisition of Dancontrol, Flonidan DC has the largest range of gas volume conversion devices worldwide. Flonidan DC is 50% owned by the Danish AVK-group.

New trends in domestic meter reading

Flonidan DC presents a diaphragm gas meter with electronic temperature conversion and error curve correction.

Better and economical accuracy with error curve correction and temperature conversion with a new temperature measurement concept

Temperature Conversion

The basic element is a standard quality diaphragm gas meter measuring unit. The temperature converter is replacing the mechanical counter.

*Patent pending

Flonidan DC has developed a unique temperature measurement system*, which ensures a precise measurement of the average gas temperature inside the measuring unit, independent of the inlet and ambient temperature changes. Correct measurement of the gas temperature may improve the accuracy with up to 3%.

Error Curve Correction

Flonidan developed an electronic error curve correction system, correcting the measured curve of each individual gasmeter on 4 points.

Gallus 2100 TCE offers:

- Standard volume or energy in the display (Sm³, Nm³ or E) by including gas pressure, altitude above sea level, gas properties and temperature in the calculation.
- High accuracy by curve correction.
- Loggings showing consumption, flow and alarm status, allowing which allows efficient troubleshooting and traceability.
- Prepared for Automatic Meter Reading, preequipped with both pulse and serial output.

TECHNICAL SPECIFICATIONS



Meter specifications:

Meter size:

Size	Flowrate m³/h		Press. drop/mbar, max	
	Min.	Max.	N-gas air	Air
G 1.6	0,016	2,5	0,4	0,55
G 2.5	0,025	4,0	0,6	0,8
G 4	0,040	6,0	1,0	1,5

Operating pressure:

Maximum operating pressure: 500 mbar_g.

Testing:

- Q_{min}
- $0,2 Q_{max}$
- Q_{max}

Approvals:

Type approved by DANAK (Danish Accreditation Authority).

Conformity to:

- EN 1359 including Firesafe (T-marked) and difference in ambient- and gas temperature (paragraph B.2.3).
- MID-2004

Specifications of electronic volume temperature conversion device:

Gas and ambient temperature:

-25... +55°C

Data log:

20 monthly loggings of converted volume including time stamp.

Alarm log:

5 latest alarms including time stamp, alarm cause and total converted volume.

Max flow log:

The 5 max. registered flows, including time stamp.

Compressibility calculation:

Fixed factor calculated from SGERG-88 or Z/Z_B. Other on request.

Configuration software:

Very user friendly PC program to parameterization, meter reading and reading of data logger.

Battery lifetime:

15 years. Calculated 20 years.

Battery change without breaking main seal.

Display:

9 digit, 0, 3 or 4 decimals (configurable).

Option card (built-in option card must be ordered separately):

Pulse output:

2 pulse outputs. Can be selected to V_b or V_m or alarm by use of setup software.

Pulse length: 125 msec.

11 - 101 - 1001 per pulse.

Serial out:

Cable for RS-232 compatible connection can be delivered.

Protocol description can be delivered on request.

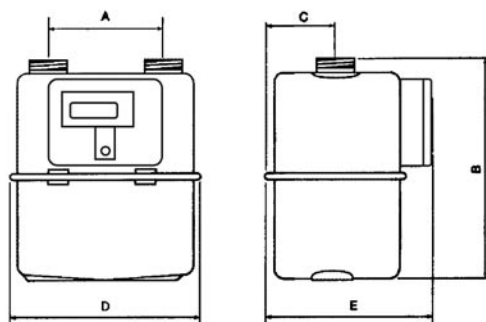
Total accuracy:

Converted volume:

- Q_{min} - 0,1 Q_{max} : 2%
- $0,1 Q_{max}$ - Q_{max} : 1%
- MID Class 1

Enclosure, index:

IP65



Model	A mm	B mm	C mm	D mm	E mm	kg	Connections (ISO 228)
2 pipe 110	110	210	67	190	158	1,45	DN 20 G7/8" (ISO 228/1)
2 pipe 160	160	227	80	240	158	1,6	DN 20 G7/8" (ISO 228/1)
2 pipe 220	220	270	72	283	172	2,6	DN 20 G3/4"
1 pipe co-axial		230	67	190	158	1,6	DN 25 (DIN 3376)

Other on request.

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