

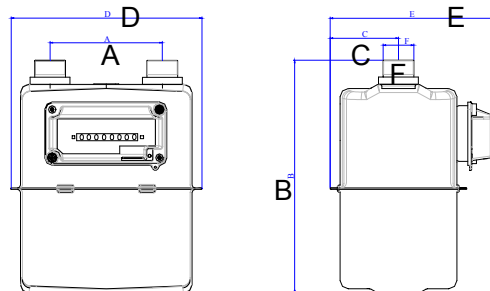
Subject
INSTRUCTION MANUAL
Gallus 2000 Gas meter (G4, G2.5, G1.6)

Gallus 2000 is a positive displacement diaphragm type gas meter developed by Actaris Reims, in France. It is a compact, light-weight, robust gas meter, with lower starting flow and extended metrologic performances. Gallus 2000 meter meets OIML, E.E.C, and BS standards.

I.Characteristics:

Use	Natural gas , LPG, Bio gas and Coal gas (please consult us for any other gas.)			
Cyclic volume	1.2 dm ³ (0.042ft ³)			
Operating temperature	-20°C to 50°C (please consult us for lower temperature.)			
Storage temperature	- 40°C to +60°C			
Maximum operating pressure	0.5bar (7.25psi) for standard steel case meter.			
Measuring range	Type	Qmax	Qmin	
	G1.6	2.5 m ³ /h (88ft ³ /h)	0.016 m ³ /h (0.56ft ³ /h)	
	G2.5	4 m ³ /h (141ft ³ /h)	0.025 m ³ /h (0.88ft ³ /h)	
	G4	6 m ³ /h (211ft ³ /h)	0.040 m ³ /h (1.41ft ³ /h)	
Accuracy	Flow rate range	0.1Qmax ≤ Q ≤ Qmax	Max. permissible error	± 1.5 %
		Qmin ≤ Q < 0.1Qmax		± 3 %
Pressure loss at Qmax	≤ 200 Pa			
Pressure loss at Qmin	≤ 60 Pa			
Max index reading	99999.999 m ³ (9999999.9ft ³)			
Test graduations	0.2 dm ³ (0.02ft ³)			
Optional Pulse Generator	Working voltage: 12VDC max.; working current: 10mA max.			

II. Casing :



Type	Large casing	Standard casing
Material	Steel with anti-corrosion treatment	Steel with anti-corrosion treatment
Index stuffing box	Fireproof version	Fireproof version
Flow direction	Left to Right or Right to Left	Left to Right or Right to Left
A	130 mm	110 mm (4.33 in.)
B*	226 mm	226 mm (8.9 in.)
C	67.3 mm	67.3 mm (2.65 in.)
D	216.2 mm	188.4 mm (7.42 in.)
E	159mm	159 mm (6.26 in.)
Weight	1.95 kg	1.86 kg (4.1 lb.)
Nipple type	M30x2, NPT, BS746, etc...	M30x2, NPT, BS746, etc...

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III. TRANSPORT/STORAGE

Gallus2000 diaphragm gas meter is a high-precision measuring instruments which, when handled, installed and operated in a normal careful way, will remain in service for many years.

Upon receipt, please examine the shipping container and the meter for any visible damage. Any visible damage should be reported to the carrier for compensation. Retain all documents shipped with the meter since these are required in the event of claims.

Store the meter in a dry place with temperature between -20°C and $+60^{\circ}\text{C}$. Do not remove the protection caps from the meter while in storage

Do not remove any seals from the meter. Doing so will invalidate the warranty of the product and maybe the fiscal approval of the meter.

Transport the meter carefully to site. Never drop the meter to the ground. Always keep the meter upright for transport and installation.

IV. INSTALLATION

Do not use the Gallus2000 to measure oxygen or acetylene.

The place for mounting the gas meter should be easily accessible, dry and frost free. Avoid installing the meter in a corrosive environment.

The flow direction is indicated by an arrow on the body. The maximum working pressure and the maximum flow are marked on the front badge. **Maximum flow and working pressure must not be exceeded.**

The gas supply pipes and threads must first be blown clean with dry air. Any foreign particles can cause serious damage and loss of accuracy.

When condensation is a problem, the line on the upstream side of the meter should have water traps to prevent the condensation from collecting in the meter.

- **The piping should be arranged to prevent piping strains on the meter.**
- Check the alignment, the parallel, the distance of flanges or studs.
- **Do not use the meter to adjust the badly-fitted piping.**
- The installation torque must not be exceeded $80\text{ N}\cdot\text{m}$ ($59\text{ lbf}\cdot\text{ft}$).
- The mounting and leakage test has to be done by qualified personnel.
- Leak tests should be performed to ensure correct installation.
- **It is critical that piping center distance matches the center distance of the meter. See chart on previous page for dimensions.**
- Actaris is not responsible for the product installation

Actaris is not responsible for product damaged as the result of improper installation. Failure to follow installation instructions nullifies warranty.

Actaris is not liable for any claims or damages due to mishandling or faulty installation of

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the product by the end-user or any of their affiliates.

Actaris Terms & Condition apply.

Warranty of products and services and the mitigation process for quality failures:

Actaris U.S. Gas, Inc. warrants its gas products against defects in materials and workmanship for the earlier of one (1) year from the date the product is shipped by Actaris or a period of one year from the date the product is installed by Actaris at the original purchaser's site. During such one-year period, provided that the original purchaser continues to own the product, Actaris will, at its sole option, repair any defects, replace the product or repay the purchase price.

This warranty will be void if the purchaser fails to observe the procedures for installation, operation or service of the product as set forth in the Operating Manual and Specifications for the product or if the defect is caused by tampering, physical abuse or misuse of the product.

ACTARIS U.S. GAS, INC. SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES WILL ACTARIS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER.

Actaris' liability for any claim of any kind, including negligence and breach of warranty for the sale and use of any product covered by or furnished, **shall in no case exceed the price allocable to the product or part thereof which gives rise to the claim.**

In the event of a malfunction of the product, consult Actaris Customer Service at (800) 490-0657, or write to 970 Highway 127 North, Owenton, Kentucky 40359-9082. Actaris Customer Service will issue a Return Material Authorization Number (RMA#) and return instructions within 72 hours. Upon receipt of RMA#, returned material may be shipped by a preferred Actaris carrier to the Owenton, KY facility FOB Shipping Point freight collect.

V. COMMISSIONING

When commissioning the supply of gas, open the valves slowly to avoid any sudden excessive pressure build-up across the meter which will result in rupturing of the diaphragm or other possible damage.

VI. MAINTENANCE

When commissioned properly and operating under normal conditions, **no additional maintenance is necessary during the life of the meter.**

Local regulation concerning installation, periodic maintenance or calibration or replacement may differ. **Please consult your local regulatory authority for details.**