Consumer and Corporate Affairs | Consommation et corporations

Standards | Normes

NOTICE OF APPROVAL
AVIS D'APPROBATION

G-127

Ottawa, August 7, 1979

CANADIAN METER COMPANY TYPE AL 2300 (IMPERIAL UNITS) AND TYPE AL M 2300 (METRIC UNITS) ALUMINUM CASE, STANDARD AND TEMPERATURE COMPENSATED POSITIVE DISPLACEMENT GAS METERS

This approval supersedes Circulars S-GA.235 dated June 19, 1962 and S-GA.266 dated August 2, 1963, both are of Imperial Unit type.

Apparatus

Model designation	AL 2300	AL M 2300	
Rated air capacity at 0.5 in. W.C. or 0.125 kPa:	1840 cu ft/h	52 m^3/h	
Capacity per tangent revolution:	1.25 cu ft	35.7 dm^3	
Tangent to test dial rev. ratio:	8:1	2.8:1	
Max. working pressure:	100 psig*	700 kPa*	
Compensating tangent activity (T.C. meter):	0.00216"/°F	0.09876 mm/°C	
Base temperature (Temp. comp. meter):	60°F	15°C	
Undergear assembly:	44631G001	44631G012	
Gear ratio:	8:1	2.8:1	
Register types:	Clock*	Clock*	Cyclometer*
(i) Part number:	42961G015	54882G001	52170G002
(ii) Faceplate designation:	224	B399	RM 108-0.1
(iii) Register capacity:	9 999 900	99 999	999 999
(iv) No. of registering dials/drums:	5	5	6
(v) Test dial volume:	10 cu ft/rev.	0.1 m^3/rev.	0.1 m^3/rev.
Meter connections, female:	4"	4"	4"

*Notes: 1. Any meter equipped with the specified register alone is approved for measurement of gas at pressures up to 3 kPa or 7 ounces per square inch only, unless the meter is used for pressure factor metering.

2. Any meter which measures gas at pressures above 3 kPa or 7 ounces per square inch but is not used for pressure factor metering, must be equipped with an approved auxiliary pressure correcting device.

Description

The AL 2300 and AL M 2300 type positive displacement gas meters are of the conventional design. The main aluminum alloy casting, partitioned in the middle, forms the meter case with its front and back plates covering the diaphragms. White metal alloy valve seats carry plastic valves. Oil impregnated, porous bronze bushings provide self-lubricating bearings. Flag rods are sealed with suitable synthetic grommet-type seals. The meter top, covering the valve mechanism assembly, carries the meter register and the undergear assembly.

The appropriate combination selection of the undergear assembly, register and the nameplate determines the meter type - Imperial or Metric.

The standard meter uses a conventional double adjustable tangent.

The temperature compensated version is identical to the standard meter except for the alteration where the standard double adjustment tangent is replaced by the temperature compensating tangent.

During operation of the temperature compensated meter, the tangent length changes with the temperature change of the flowing gas, thus automatically adjusting the stroke of the diaphragms. The rate of change of the tangent length with temperature is suitably chosen so that regardless of the temperature of the flowing gas, meter registration indicates the volume at 60°F or 15°C. When T.C. meters are tested in field at temperatures other than 60°F or 15°C, the supplied correction chart should be used in establishing the errors of these meters.

Each meter shall have a nameplate containing the following information:

(1) Manufacturer's name
(2) Model designation
(3) Manufacturer's serial number
(4) Rated capacity, cu ft/h at 0.5 in. W.C. or m^3/h at 0.125 kPa, differential
(5) Maximum working pressure
(6) Temperature compensated type meters shall have a red background badge with the following applicable additional information: "Temp. Comp. cu ft at 60°F" or "Temp. Comp. m^3 at 15°C."

Caution shall be exercised to ensure that the proper registers are only put on meters which incorporate the corresponding undergear assembly.

Sealing of the meter shall be in accordance with Technical Gas Circular G-76-1. Any meter intended for operation on low distribution pressure or for PFM application without an auxiliary attachment shall have the register sealed to the meter at the time the meter is verified or re-verified.

Approval granted to: Canadian Meter Company
Milton, Ontario and
Edmonton, Alberta

D. L. Smith, P.Eng.,
Chief, Electricity and Gas Division
Legal Metrology Branch

Ref: 6635-C6-23