



**NOTICE OF APPROVAL
AVIS D'APPROBATION**

G-128

Ottawa, August 7, 1979

**CANADIAN METER COMPANY TYPE AL 5000
(IMPERIAL UNITS) AND TYPE ALM 5000
(METRIC UNITS) ALUMINUM CASE, STANDARD
AND TEMPERATURE COMPENSATED POSITIVE
DISPLACEMENT GAS METERS**

This approval supersedes Circulars S-GA.230 dated June 6, 1962 and S-GA.246 dated October 22, 1962; both are of Imperial Unit type.

APPARATUS

	<u>Imperial</u>	<u>Metric</u>
Model designation:	AL 5000	ALM 5000
Rated air capacity at 0.5 in W.C. or 0.125 kPa:	4000 cu ft/h	113m ³ /h
Capacity per tangent revolution:	2.857 cu ft	80 dm ³
Tangent to test dial rev. ratio:	3.5:1	1.25:1
Max. working pressure:	100 psig*	700 kPa*
Compensating tangent activity (T.C. meter):	0.00324"/°F	0.14813 mm/°C
Base temperature (Temp. comp. meter):	60°F	15°C
Undergear assembly:	44327G001	44327G013
Gear ratio:	3.5:1	1.25:1
Register types:	Clock*	Clock* Cyclometer*
(i) Part number:	42961G015	54882G001 52170G002
(ii) Faceplate designation:	224	B399 RML08-0.1
(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.	0.1m ³ /rev. 0.1m 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 3kPa 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 3kPa 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 5000 and ALM 5000 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 use 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 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 m³/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. m³ 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.

A handwritten signature in cursive script, appearing to read "D.L. Smith". The signature is written in dark ink and is positioned above the typed name of the signatory.

D.L. Smith,
Chief,
Electricity and Gas Division.

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