Department of consumer and corporate affairs / Ministère de la consommation et des corporations

STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL
AVIS D'APPROBATION

E-130

OTTAWA November 25, 1974

LANDIS & GYR TYPES "QFi" AND "QLi" A^2h LOSS METERS

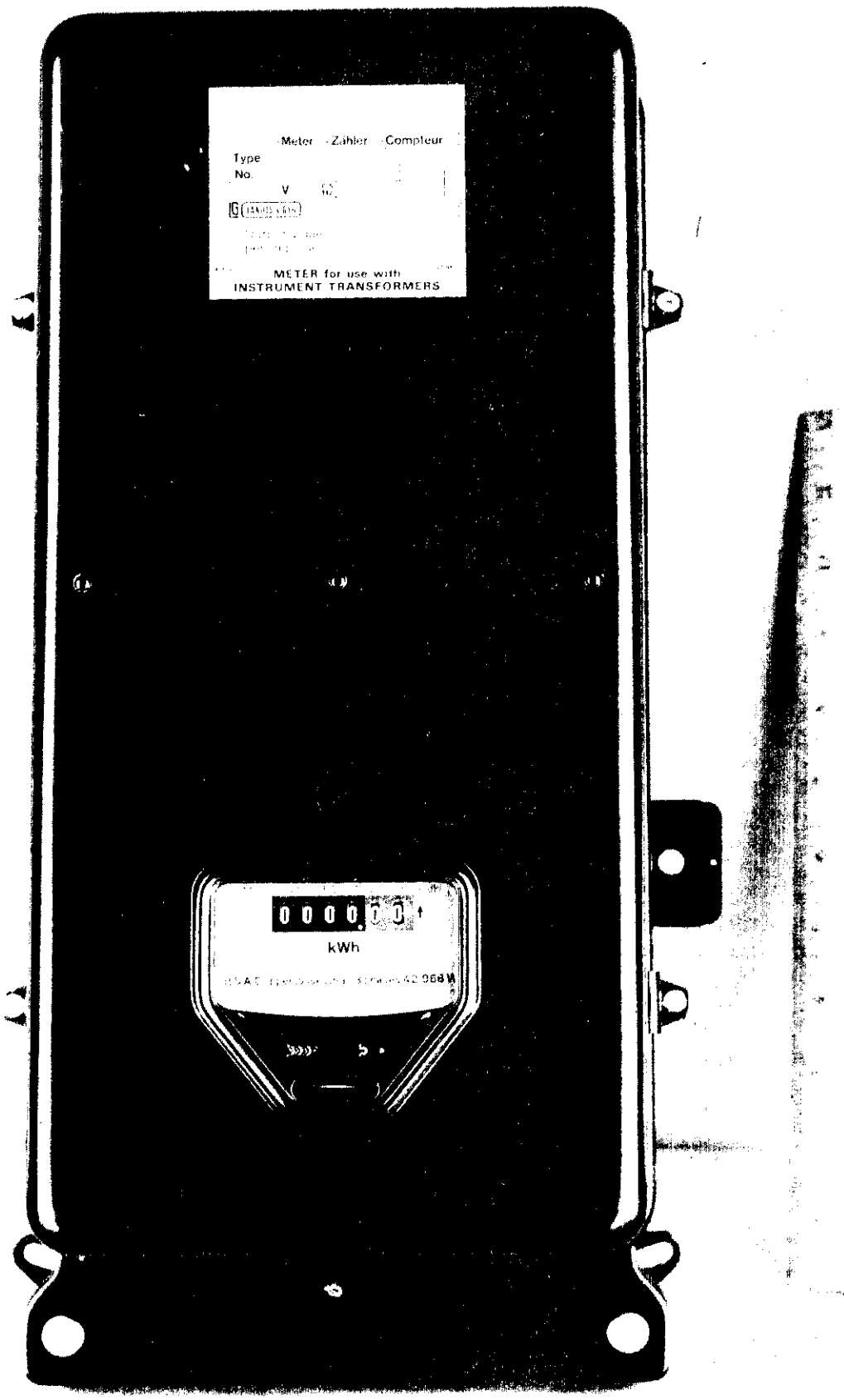
Elements	One, two or three denoted by type prefix
Current Rating	0.12-6.25 amperes
Compensation Voltage	115 volts
Register Relay Voltage	115 volts
Registration Units	Kwh, Wh or A^2h
Register Type	Any approved single or double tariff register
Transmitting Contacts:	Any approved Landis & Gyr type

Description

The purpose of the A^2h meter is to measure power line losses (copper losses) by integrating the square of the line current over time. Its physical appearance is similar to watthour meters of the "F" and "L" series, the basic difference being that the voltage coil of each element has been replaced by a second current coil. Furthermore an additional potential coil has been added to compensate for friction. This friction compensating element is supplied from an auxiliary 115 volt source via the bottom terminal block and is adjustable.

These meters may be fitted with double registers marked IMPORT-EXPORT, signified by type suffix "d". The register in use is indicated by an arrow. Register changeover is effected by a relay which must be controlled by an external SPDT contact whose position is determined according to the direction of power flow.

Disc rotation is always counterclockwise from above and the value per output pulse is the same regardless of the direction of energy flow.


Meter Zähler Compteur
Type
No.
METER for use with
INSTRUMENT TRANSFORMERS
kWh

The register and pulse output are in the same units. They may indicate ampere squared hours, or by a suitable combination of gear ratios and multipliers be converted to either primary or secondary watthours. In the latter cases, the effective line resistance must be marked on the nameplate either in ohms or watts at rated current, together with the current transformer ratio when applicable.

The value per output pulse must appear on the nameplate, and if in ampere squared hours, the register constant in associated summator devices must incorporate the value of effective line resistance.

Adjustments comprise balancing, full load and friction compensation and with the exception of the latter are similar to other "F" and "L" series meters.

A paper diagram glued to the underside of the terminal cover depicts the proper circuit connections. This approval is also applicable to A^2h meters when combined with other types of meters in a common case.

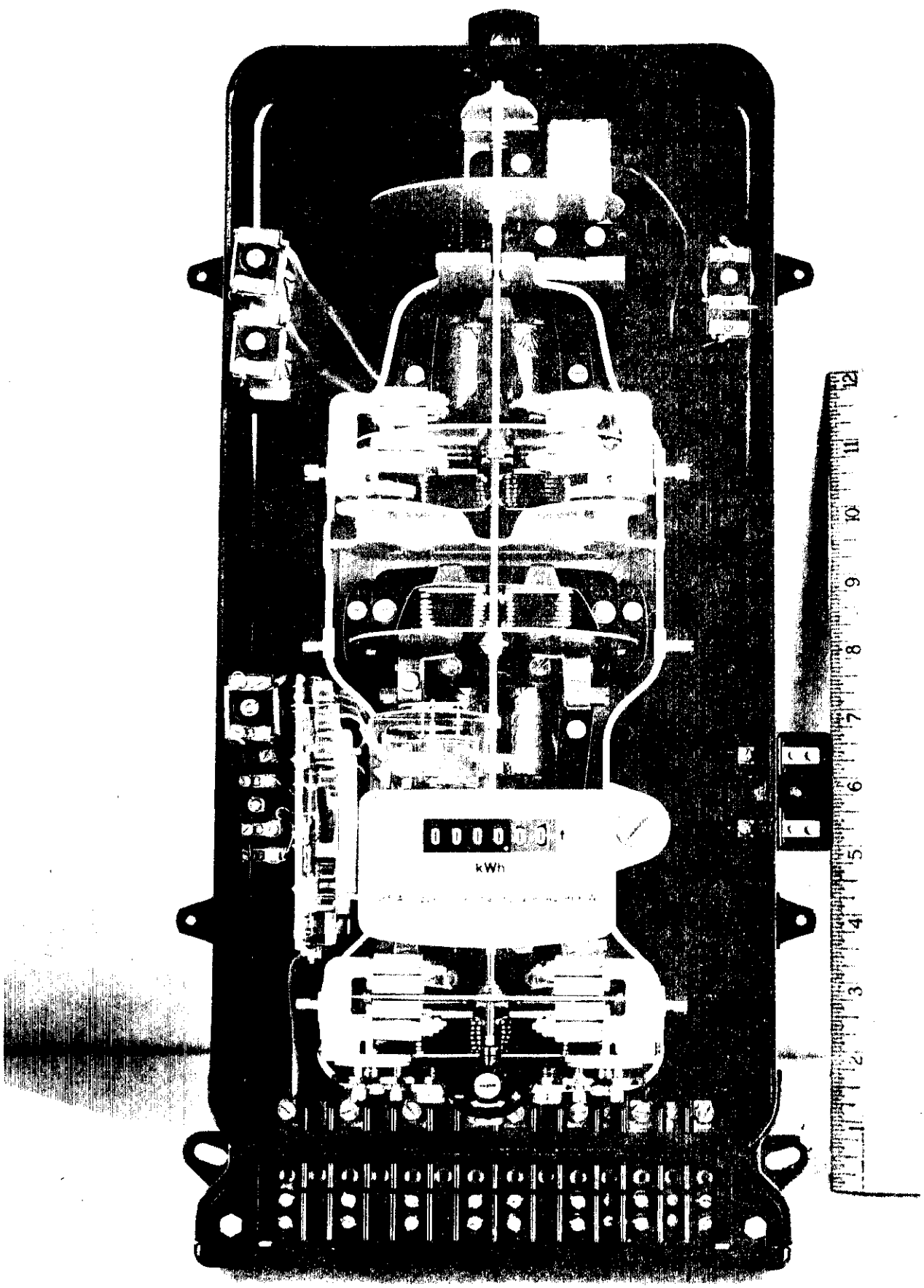
Approval granted to:

Landis & Gyr Ltd.,
2063 Chartier Street,
Dorval 760, Que.

J. L. Armstrong,
Chief, Standards Laboratory,

D. L. Smith,
Chief, Electricity & Gas Division
Metrology and Laboratory Services.

Re: GL 1145-57/L1-681


kWh