

TRADE AND COMMERCE  
CANADA

SD-GA.68

## STANDARDS DIVISION

OTTAWA, April 22, 1955.

TYPE APPROVALSANGAMO TYPE "B-1" GAS TELEMETER

The apparatus specified and illustrated herein has been duly approved by the Standards Division under the provisions of the Gas Inspection Act, Chap. 129, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: Type "B-1" Gas Telemeter, manufactured by the Sangamo Company Limited, Springfield, Illinois, and distributed in Canada by Sangamo Company Limited, Leaside, Toronto 17, Ontario.

Rating of Apparatus: Apparatus intended for use with any Type 5B positive displacement gas meter.

Application: For remote indication of a positive displacement gas meter up to 125 feet.

Description: The purpose of the gas telemeter is to enable a positive displacement gas meter to be read at a point remote from the meter as for example at the outside of a house or building.

The Sangamo gas telemeter consists of two units, the telemeter transmitting element and the telemeter receiver or index. The transmitter unit is mounted inside the meter in the top chamber and is pneumatically connected to the receiving unit by small-bore copper tubing which passes through the case of the meter. The receiver unit is located in some position which is convenient for reading. The principle of the telemeter is as follows:- The major operating components of the transmitter consist of a small gear drive, a cam and a diaphragm. A gear on the transmitter meshes with a gear on the proving index axle of the meter. Rotation of the gear by the passing of gas through the meter causes the diaphragm to pulsate once for the passage of each 100 cubic feet of gas. The pulsation of the transmitter diaphragm is carried pneumatically through the copper tube to the receiver unit which consists essentially of a diaphragm, a ratchet type advance and an index mechanism. Each transmitted impulse causes a corresponding movement of the receiver diaphragm and this operates the ratchet advance. The count of impulses is indicated on the receiver index so that it duplicates the reading of the gas meter. Small bleeder orifices are provided into the transmitter diaphragm chamber from the meter top chamber and into the receiver chamber from the atmosphere. These are for approximately equalizing the pressure on both sides of each diaphragm and for purging the transmission line so that condensation within it will not take place.

Pamphlets covering an earlier version of this device suggested piercing the deck plate in the closed-top meters so as to bring the pressure in the top chamber up to line pressure. This practice is not permissible.

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