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

STANDARDS BRANCH - DIRECTION DES NORMES

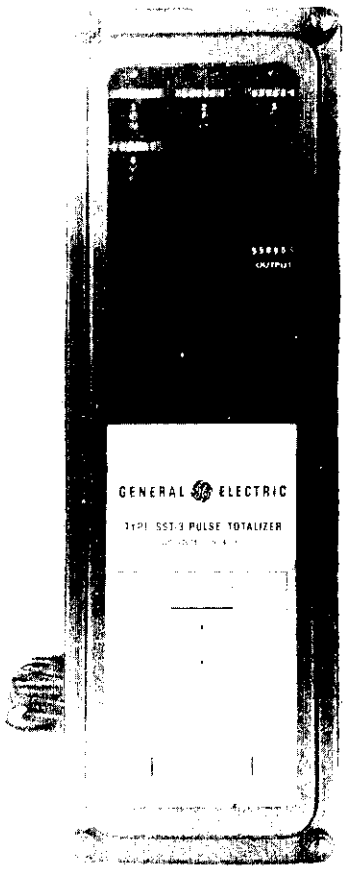
NOTICE OF APPROVAL
AVIS D'APPROBATION

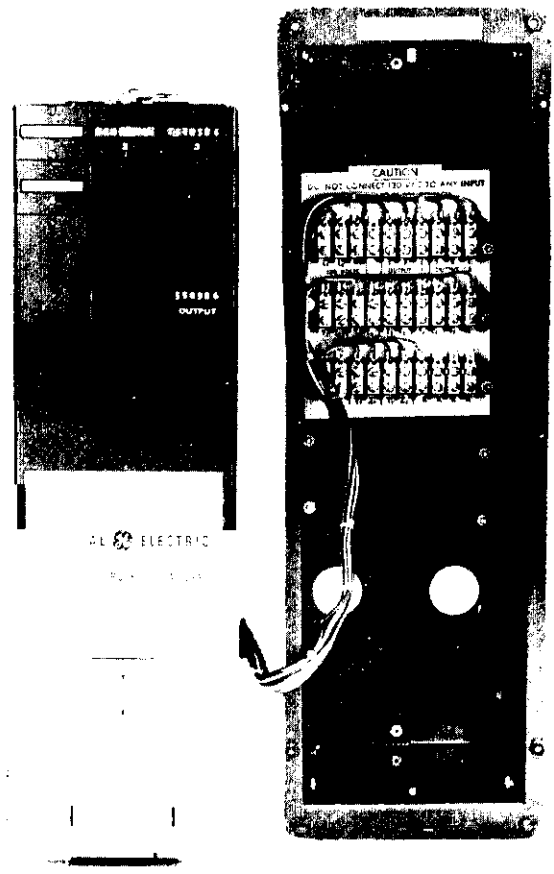
E-101

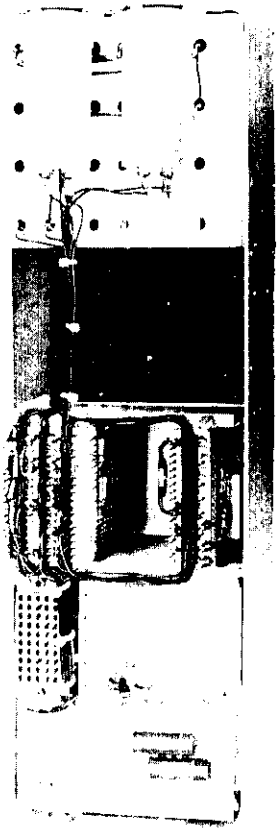
OTTAWA January 29, 1974

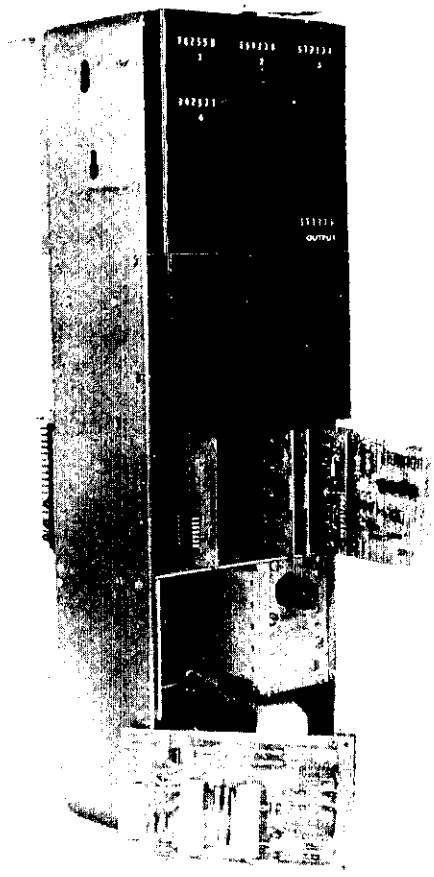
GENERAL ELECTRIC TYPES "SST-3" SOLID STATE IMPULSE TOTALIZER

Input	
Type ①	Any approved SPDT 3 wire Form C or KYZ type isolated dry contacts
Number of Channels	2 to 20 without heaters 2 to 12 with heaters
Number of Counters	1 for each channel
Counter Type	6 digit cyclometer (minimum)
Max. Counter Rate	18 per second
Max. Input Circuit Resistance ②	50 ohms
Contact Burden	max. 600 ma decreasing to 2 ma
Pulse Acceptance Rate	
Per Totalizer	Equal to the end-device acceptance rate times the input/output ratio. Max.18
Per Channel	Equal to the pulse acceptance rate per totalizer distributed over all the input channels
Equalization ③	Whole number ratios from 2:1 to 16:1
Output	
Type ④	SPDT mercury wetted contacts
Capacity	300 volts RMS, 2 amp., 100 va maximum
Rate	Not to exceed acceptance rate of end-device. Maximum 18 per second
Ratio	Any whole number from 1:1 to 16:1
Totalizer Temperature Range	+20°F to +140°F without heaters -20°F to +140°F with heaters
Power Supply	120 volts 50 HZ and 60HZ 30 watts max.without heaters 90 watts max.with heaters


GENERAL ELECTRIC
TYPE SST-3 PULSE TOTALIZER


CAUTION
INPUT





① The "K" connection of all channels may be common. Power to the contacts is supplied by the SST-3.
② Including contact resistance.
③ The counters record the incoming impulses, and equalization may be necessary to make each pulse correspond to the same quantity of measured units before the pulses from the various channels can be added or otherwise processed.
④ The SST-3 supplies no power to the end device.

Description

The SST-3 solid state totalizer is an intermediate device usually connecting the pulse devices on several watthour meters to an end device. It may incorporate more than one totalizing circuit, each operating independently of the other, and may include input equalization, count storage on negative inputs, and subtotals of groups of inputs.

It will accept random or simultaneous inputs on any or all channels and exit these pulses in serial form, i.e. spaced in time to the end device (a recording demand meter) at a rate acceptable to the end device. If the end device is a PD57F printing demand meter for example, the maximum output pulse rate would be 1.1 pulses per second.

This output pulse rate is adjustable by changing a certain resistor identified as "R7" on the clock board. This resistance would have a lower value if an end device having a higher pulse rate capacity were used in place of the PD57F.

The subtractive channels have an inherent capability of storing 2 counts, a 3rd subtractive count will erase all counts, but by the addition of count-store board assemblies, this storate is increased to 15 counts per additional board.

The SST-3 is capable of providing a multiple of computing functions and outputs through the use of plug-in printed circuit board construction, each board assembly providing a specific function which is marked on the board.

All SST-3 totalizers have a line diagram on their nameplates. This diagrams shows the route(s) of the pulses from the time they arrive until they exit to the end device, and includes any equalizations along the route.

The illustrations on page 2 show a 4 channel totalizer, all positive and having the total number of pulses divided by 2 before they appear on the output relay.

When verifying, it is permissible to parallel the input terminals "Y" and the terminals "Z" in order to provide simultaneous inputs.

Also, it is essential that the line diagram be followed to see that all pulses are accounted for and arrive at their appointed destinations and any equaliztion of pulses is taken care of.

Approval granted to:

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