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-131

OTTAWA December 5, 1974

WESTINGHOUSE TYPES "CD-2", "CD-3", "CD-5" AND "CD-6" MECHANICAL PULSE INITIATORS

Type Configuration

"CD-2"	2-wire with quick make-quick break action
"CD-3"	3-wire with quick make-slow break action recommended for operating "WR-2C", "WR-4C" and "WR-31" magnetic tape recorders
"CD-5"	3-wire with quick make-quick break action
"CD-6"	3-wire contact device actuated by one cam and provides alternate pulses with spacing.
Capacity of contacts (1)	Maximum 100 milliamperes
Pg ratio (2)	200/9 (22 2/9) to 125/1 (125)
Mp ratio (3)	25/18 to 125/16 with 8 segments per cam. Mp values are proportionately greater with less segments per cam.

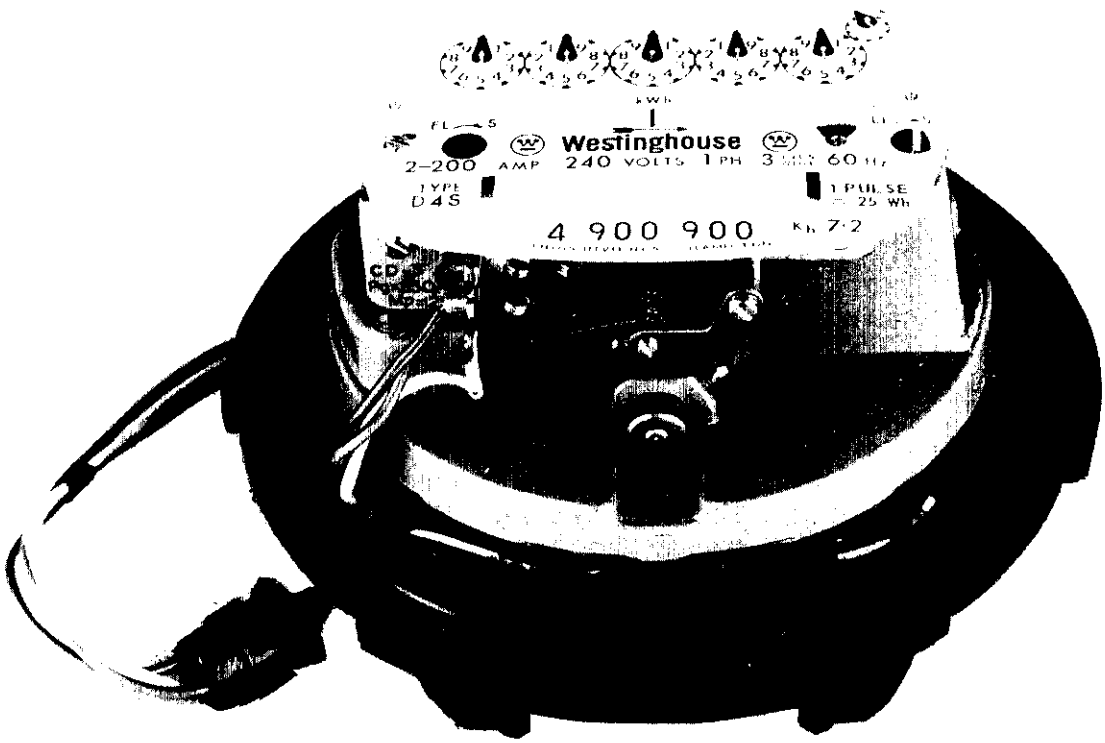
(1) Contact protection is recommended in form of a series resistor - capacitance network across each contact for proper arc suppression.

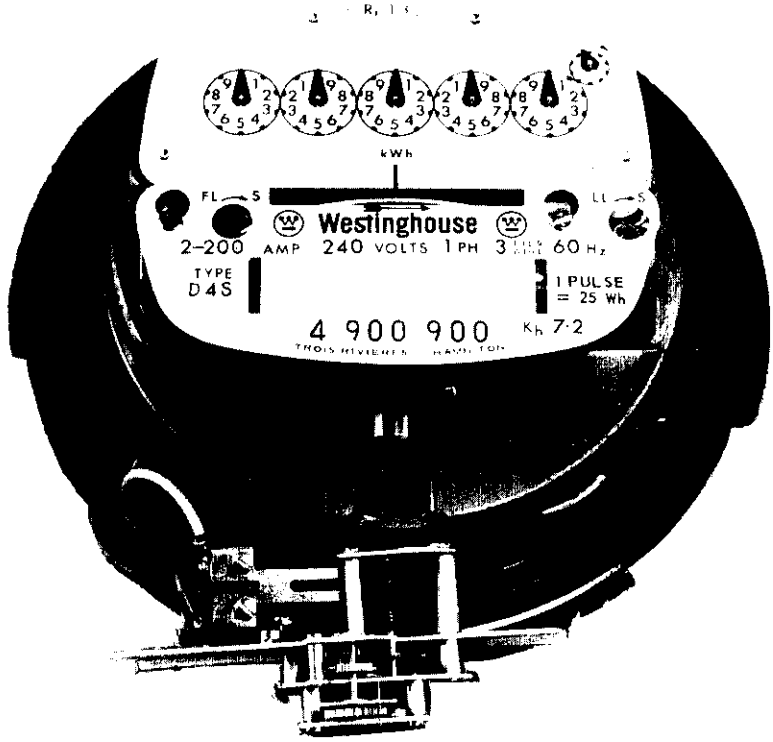
(2) "Pg" = Number of meter disc shaft revolutions for one revolution of the cam shaft.

(3) "Mp" = Number of meter disc shaft revolutions to cause one pulse (contact closure). i.e. Ki = Mp.Kh

Description

These mechanical pulse initiators are for use with the approved types "D4-" single phase and polyphase watthour meters approved under E-82 of December 15, 1969 and E-122


kWh
FL S
Westinghouse
2-200 AMP 240 VOLTS 1 PH 3 WIRE 60 Hz
TYPE D4S
1 PULSE = 25 Wh
4 900 900
Kh 7·2


kWh
FL S
Westinghouse
2-200 AMP 240 VOLTS 1 PH 3 WIRE 60 Hz
TYPE D4S
1 PULSE = 25 Wh
4 900 900
Kh 7·2

of June 21, 1973 respectively for transmitting pulses proportional to the energy being measured for billing applications.

They are driven by the watthour disc shaft through a suitable reduction gearing from a 13 tooth spline on the disc shaft just below the disc. Pulse initiation is effected by the make and break action of flexible contact blades actuated by either one cam as in the "CD-6" or two cams as in the types "CD-2", "CD-3" and "CD-5".

The gear ratio and the number of segments on the plastic cams determine the rate of pulses in relation to the meter disc revolutions.

The energy value per pulse (Ki)expressed in watthours, is marked on the meter nameplate.

The gearing between the meter shaft and the cam shaft of the pulse initiator provides a great variety of ratios hence most desired energy values per pulse are available from standard ratios.

The lowest "Pg" ratio covered by this approval is 200/9 and the lowest "Mp" value (highest pulse rate per disc revolution) is a ratio of 25/18 with the maximum number of segments per cam permitted being 8.

The "Pg" and "Mp" ratios are marked on the pulse initiator plate.

The socket type meters on which a contact initiator is installed are provided with a three-conductor cable passing through a hole in the moulded base which is sealed with synthetic filler.

Approval granted to: Westinghouse Canada Limited,
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