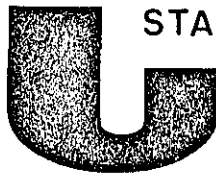




Department of consumer and corporate affairs / Ministère de la consommation et des corporations



STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

T - 69

OTTAWA September 13, 1971.

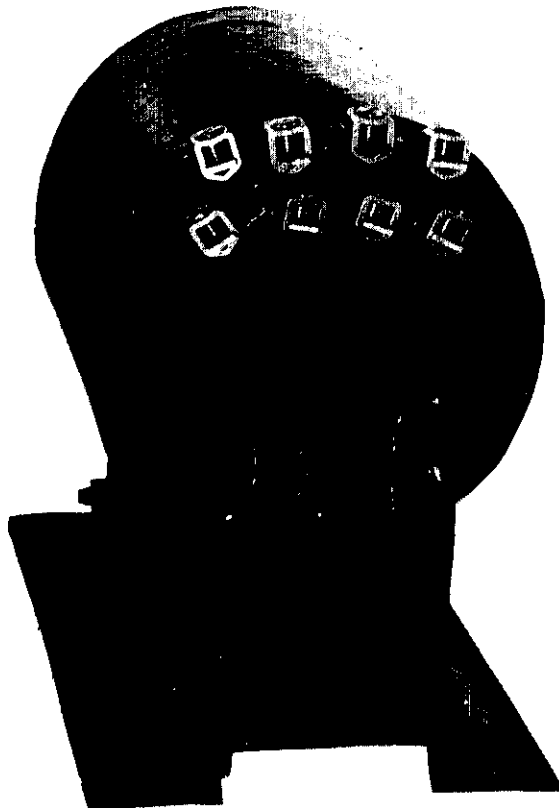
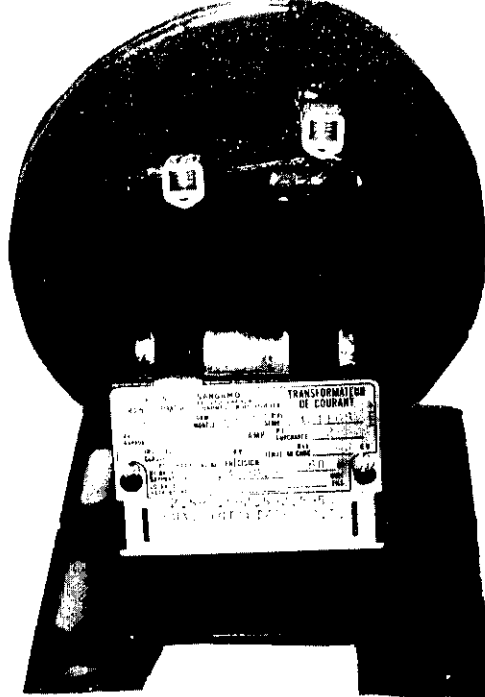
SANGAMO TYPE "1A FORM 6-W5" AUXILIARY TOTALIZING CURRENT TRANSFORMERS

Primary Current	2.5 + 2.5 + 2.5 + 2.5 amperes
Secondary Current	5 amperes
Accuracy Rating at 60 Hz	0.3B0.1, B0.2, B0.5, B0.9*, B1.0; 0.6B1.8, B2.0
Frequency	60 Hz
R.F. (rating factor)	2.0
Voltage Class	600 volts
Number of Primaries	4 separate
Number of Secondaries	1
Style	Wound type, indoor
Burden of Each Primary Winding# at 5 amperes primary current	0.21 ohms 0.14 mh, typical values 1.05W 0.26 rva, typical values
Metering Burden Multiplier	0.25
Primary Terminal Identification	1H ₁ - 1H ₂ first winding 2H ₁ - 2H ₂ second winding 3H ₁ - 3H ₂ third winding 4H ₁ - 4H ₂ fourth winding
Transformation ratio	2:1
Max. Current in any primary winding	5 amperes

* 0.3B0.9 is marked on the nameplates

metering burden as seen by the main transformer

SANGAMO TYPE "IA FORM 6-W5" AUXILIARY TOTALIZING CURRENT TRANSFORMERS



Description

The primary and secondary coils are assembled on a wound core of grain oriented steel and are provided with terminals consisting of straps protruding out of the coil with pressure type box connectors.

Primary terminals are at one end of the coil and the secondary terminals are at the other. The secondary terminals are marked "X₁" and "X₂", with terminal "X₁" having the same polarity as the primary terminals marked "1H₁", "2H₁", "3H₁" and "4H₁".

Application

These current transformers are designed for the purpose of totalizing the outputs from the secondaries of four equal ratio current transformers installed in the corresponding phase leads of four separate feeders supplied from the same source, but they may also be used to totalize the outputs from the secondaries of three or two main transformers.

Thus a secondary current of 5 amperes may be due to 2½ amperes in each of the four primary windings, 3 1/3 amperes in any three primary windings with no current in the fourth; or 5 amperes in any two of the primary windings and no current in the other two. With 5 amperes in a single primary winding, the current in the secondary winding will be 2½ amperes.

In all cases, the transformers to be totalized must be of the same ratio.

Typical transformer correction factors for various burdens on the secondary winding of an auxiliary totalizing current transformer:

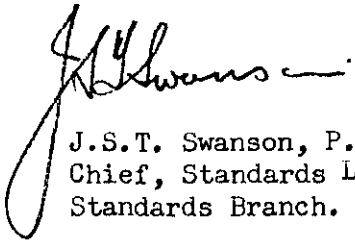
Burden	R.C.F.			Phase Angle Minutes		
	Secondary Amperes			Secondary Amperes		
	0.5	5	10	0.5	5	10
BO.1	1.0014	1.0005	1.0003	+3.6	+0.9	+0.4
BO.2	1.0015	1.0006	1.0005	+4.7	+1.5	+0.6
BO.5	1.0020	1.0011	1.0009	+7.0	+2.5	+1.3
BO.9	1.0029	1.0017	1.0014	+9.1	+3.1	+1.6
B1.0	1.0041	1.0021	1.0017	+2.6	-0.4	-1.4
B1.8	1.0046	1.0029	1.0024	+13.3	+4.2	+1.9
B2.0	1.0064	1.0034	1.0026	+2.2	-2.3	-3.6

The above apply regardless of the number of primary windings energized, and should be taken into account when computing the overall errors introduced by the main transformer and the auxiliary totalizing transformer.

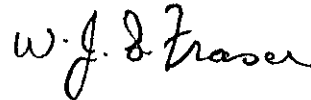
Instructions for doing this, and for calculating the approximate overall transformer correction factors will be given in a forthcoming technical electric circular.

Approval granted to:

Sangamo Company Limited,
Leaside, Toronto 17,
Ontario.



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