



DEPARTMENT OF TRADE AND COMMERCE  
STANDARDS BRANCH

E-11

OTTAWA May 27, 1965.

NOTICE OF APPROVAL

FOR

SANGAMO TYPE "SYL" THERMAL GRAPHIC KVA DEMAND METER

Apparatus

- |                                      |  |
|--------------------------------------|--|
| (1) Rated Amperes                    | 5 and 10   |
| (2) Rated Voltage                    | 115, 120, 230, 240, 460, 480, 575 and 600                                    |
| Frequency                            | 50 and 60 cycles   |
| (3) Response Period (indication 90%) | 10 and 16 minutes  |
| Elements                             | 2 for 3-phase 3-wire service<br>2 $\frac{1}{2}$ Y for 3-phase 4-wire service |
| Full Scale                           | 2-element 1000 VA<br>2 $\frac{1}{2}$ -element Y 1500 VA                      |
| Chart Drive                          | 60 cycle synchronous motor   |
| Chart Speeds                         | $\frac{1}{2}$ , 1, 2 and 3 inches per hour                                   |
| Inking System                        | Quill type pen   |
| Single Phase Test Constant           | $\frac{3}{4}$ for 2-element<br>1 for 2 $\frac{1}{2}$ -element Y              |

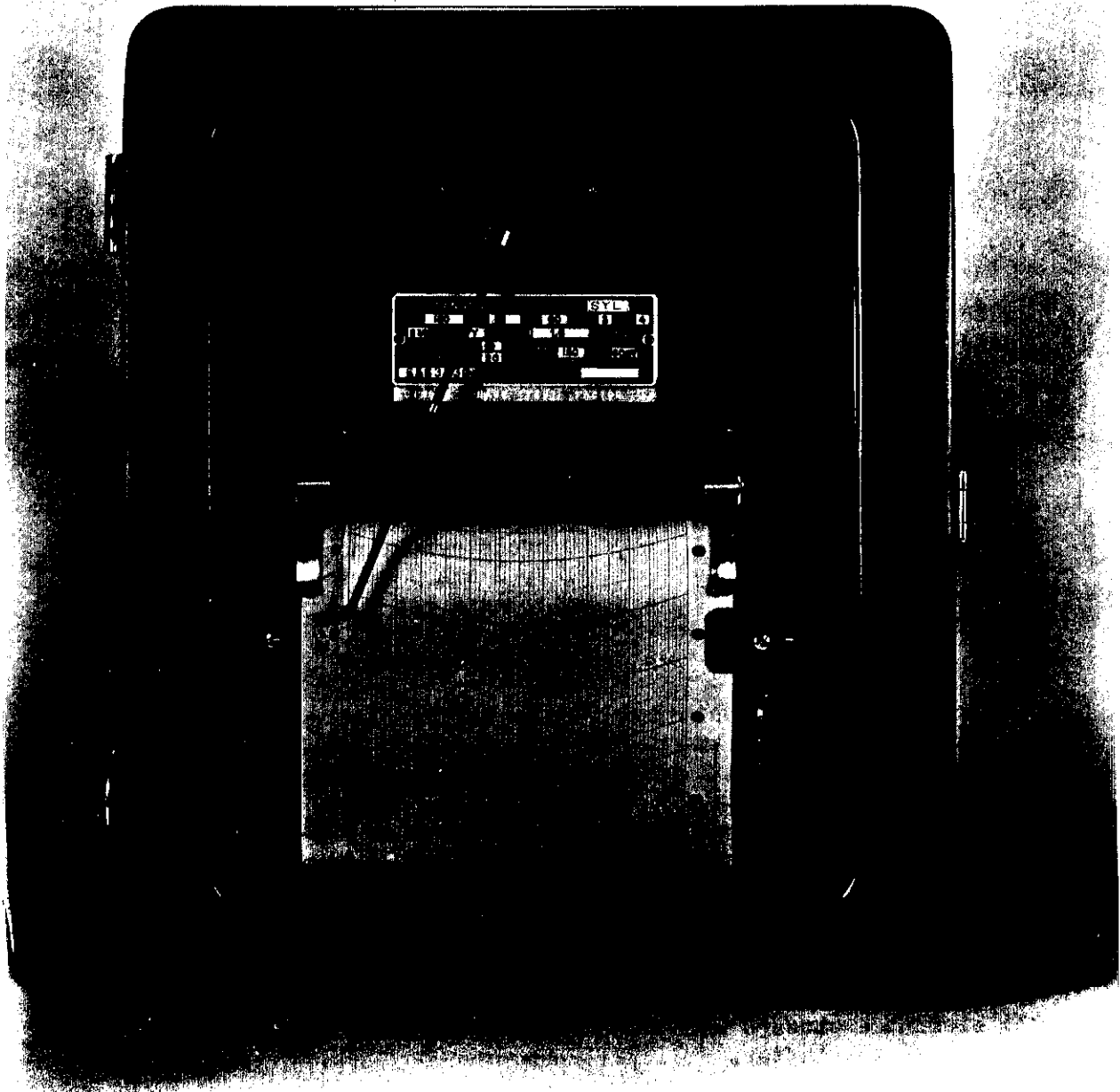
- (1) 10 ampere rating is obtained by internal current transformers
- (2) Instruments designed and marked for use on 50 cycles use a 60 cycle synchronous chart drive motor to produce the correct chart speeds at the lower frequency.
- (3) Response period is synonymous with "indication 90%". The "Test Period" is twice the response period.

Description

The type "SYL" voltampere demand meter in outward appearance is similar to that of the type SC2 receiving approval under S-EA.629 except for the element enclosure which is rectangular in the former and cylindrical in the latter.

The type "SYL" is a rectifier type of instrument and while it is independent of power factor, its readings are proportional to the average values of the current and voltage waves. Therefore, when verifying these meters; particularly if a wattmeter or rotating standard whose readings

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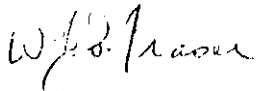


Description (Cont'd.)

are proportional to the rms values is used; the test equipment should be one known to produce current and voltage waves of low harmonic content.

When testing on single phase, voltage must be applied to both potential coils. The 2-element ratings have a single phase test constant of  $3/4$ , so that the test load must be reduced by this factor to obtain the equivalent polyphase reading; e.g., the single phase load for a reading of 1.0 KVA will be .75 KVA or .375 KVA applied to both elements in series. The  $2\frac{1}{2}$ -element Y has three identical current coils, the single phase test constant is 1, and equal loads applied to each of the current coils in turn will produce the same pointer indication.

Approval granted to: The Sangamo Company Limited,  
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