

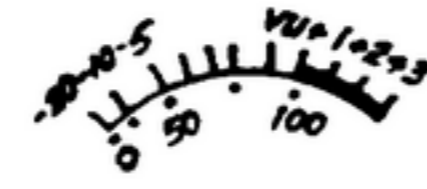
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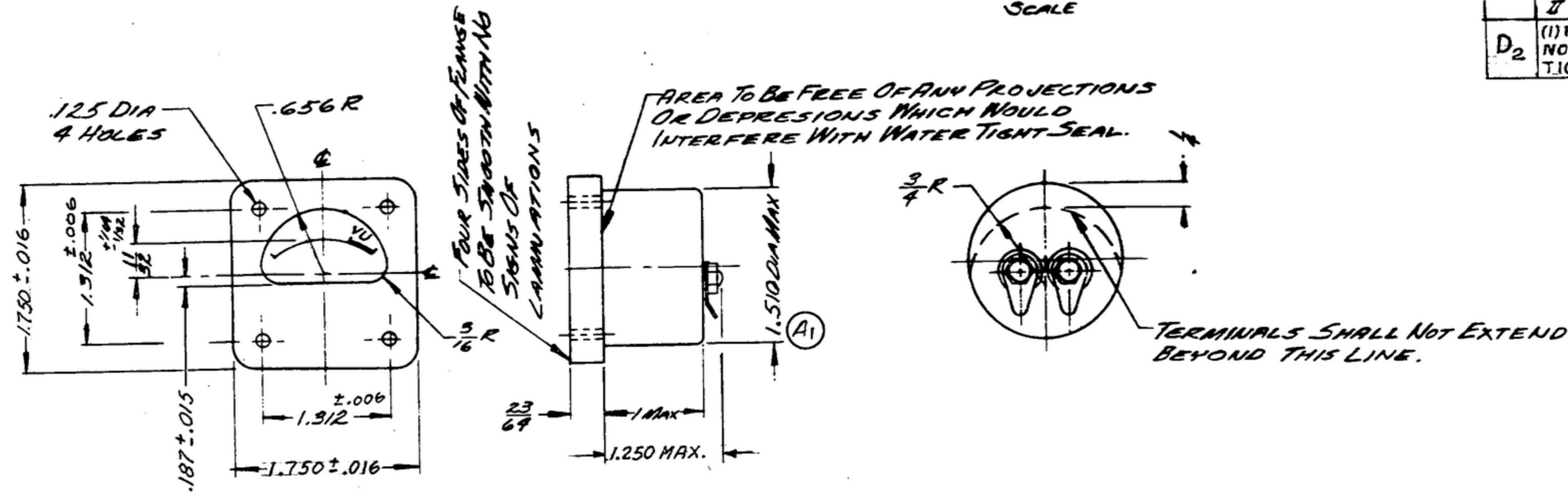
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## REVISIONS

SYM	DESCRIPTION	DATE	APPROVAL
A <sub>2</sub>	A1 IN F/O 1.510 DIA. MAX. WAS 1.150 DIA. MAX. A2 ADDED NOTE.	22 DEC 60	3214-PP-59
B <sub>1</sub>	REVISED TO SPECIFY MIL-M-10304	28 JUNE 61	REV'D PME
C <sub>2</sub>	ADDED NOTE, C <sub>2</sub> ADDED TABLE II	7-DEC 61	REV'D PME
D <sub>2</sub>	(1) REMOVED "WITH SELF LUMINOUS DIAL" FROM DESCRIPTION; (2) ADDED MARKING REF	23 MAR 1965	21582-PE-61 REV'D PME



SCALE



## NOTES:

1. PART MAY BE NO. 20-093634, TYPE 3634, AS SUPPLIED BY SIMPSON ELECTRIC, CHICAGO, ILL. OR EQUAL, PROVIDING IT MEETS THE FOLLOWING REQUIREMENTS AND DIMENSIONS SHOWN.
- D DESCRIPTION: SEALED VOLUME LEVEL INDICATOR IN ACCORDANCE WITH SPEC MIL-M-10304.
- (D<sub>2</sub>) MARKING: LUMINOUS (NON-RADIOACTIVE) IN ACCORDANCE WITH SPEC MIL-L-3891 CALIBRATION: VOLUME UNITS (VU).
- CASE: 1 1/2 INCH SQUARE, ALUMINUM, STEEL, OR MOLDED PLASTIC. FINISH: THAT PORTION OF CASE EXPOSED WHEN VIEWED FROM THE FRONT SHALL HAVE A DULL, SMOOTH BLACK FINISH.
- MARKINGS: SELF-LUMINOUS IN ACCORDANCE WITH PARAGRAPH 3.3.6 AND 3.5.2.3 OF SPEC MIL-M-3823 EXCEPT ALL SCALE MARKINGS SHALL BE SELF-LUMINOUS. POINTER TYPE: LANCE.
- APPLICABLE PARAGRAPHS OF SPEC JAN 1-6: PART I, PARAGRAPHS C AND D (EXCEPT C-2 AND D-13) INCLUDING ALL SUB-PARAGRAPHS, ALSO PART II, PARAGRAPHS E (EXCEPT E-8 AND E-9), AND F-46 (15) C, INCLUDING ALL SUB-PARAGRAPHS. OMITTED PARAGRAPHS OF SPEC MIL-M-3823: PARAGRAPH 1.2 (INCLUDING ALL SUB-PARAGRAPHS) 3.5.1, E-3A (3), E-6, F-10, F-11, F-16A, AND F-16B, AND F-18, 3.5.2.1 E-2, 3.12, 3.13, 3.18-1, 3.18-2, 6.3, AND 3.1 (SEE 19).
- CHARACTERISTICS AT "0" VU: DEFLECTION TIME TO 99% READING ON FIRST SWING SHALL BE 0.3 SECONDS ±10%. POINTER OVER SWING SHALL BE 1° TO 3°, WITH RESPONSE TIME OF 0.25 TO 0.55 SECOND. DAMPING FACTOR SHALL BE 18-100.
- SCALE: SCALE SHALL BE ARRANGED AS SHOWN ABOVE. LENGTH OF SCALE ARC SHALL BE 1" MIN. DISTANCE ON SCALE ARC FROM POSITION OF POINTER REST TO -20 VU MARK SHALL BE FROM 3% TO 10% OF LENGTH OF ARC FROM POSITION OF POINTER REST TO "0" VU MARK, WHICH SHALL BE AT A POINT BETWEEN 65% AND 70% OF TOTAL LENGTH OF ARC. FIGURES AND LETTERS SHALL BE AS SHOWN.
- METER INDICATION: WITH A 1000-CYCLE SINE WAVE INPUT OF 1,228 VOLTS APPLIED TO THE INSTRUMENT PROPER IN SERIES WITH AN EXTERNAL ADJUSTABLE NONINDUCTIVE RESISTOR, THE RESISTOR SHALL BE ADJUSTED SO THAT THE INSTRUMENT POINTER IS DEFLECTED TO EXACTLY THE "0" VU MARK ON THE SCALE. WHEN THE VOLTAGES TABULATED IN TABLE I ARE APPLIED TO THE RESISTOR-INSTRUMENT COMBINATION, WITH NO CHANGE IN THE ADJUSTMENT OF THE RESISTOR, THE INDICATION OF THE POINTER BETWEEN THE "-4 VU" AND "+3 VU" MARKS SHALL BE WITHIN THE LIMITS OF MAXIMUM ERROR SHOWN IN TABLE I FOR THE CORRESPONDING SCALE MARK. THE ERRORS, HOWEVER, SHALL BE IN CONSISTENTLY DECREASING MAGNITUDE TOWARD THE "0" VU MARK.
- (C-1) VOLTAGES TABULATED IN TABLE II APPLIED, METER POINTER WITH THE 1% RMS SHALL BE DEFLECTED TO THE PER CENT SCALE MARKS INDICATED.

RESISTANCE: INSTRUMENT RESISTANCE WHEN INDICATING "0" VU ON THE SCALE SHALL BE 7500 OHMS, INCLUDING 3600 OHMS ±0.5% EXTERNAL RESISTOR WITH A RESISTANCE DIFFERING BY LESS THAN 0.5% FROM ITS IMPEDANCE AT 10,000 CYCLES. THE EXTERNAL RESISTANCE IS NOT SUPPLIED AS PART OF THE INSTRUMENT. THE INTERNAL RESISTANCE OF THE INSTRUMENT PROPER MUST BE 3900 OHMS ±5% AT THE 0 MARK WHEN A 1000 CPS SINE WAVE AC VOLTAGE IS APPLIED.

ACCURACY: WITH A 1000 CYCLE SINE WAVE INPUT VOLTAGE APPLIED TO THE INSTRUMENT IN SERIES WITH THE EXTERNAL RESISTANCE, THE POINTER SHALL DEFLECT TO THE 0 MARK ±0.25 VU. AT THE OTHER POINTS OF THE SCALE, THE INSTRUMENT ERROR SHALL NOT EXCEED ±3% OF THE VOLTAGE SPECIFIED FOR THE DEFLECTION TO THE 0 MARK.

WIDTH OF SCALE ARC AND MAJOR CALIBRATION MARKS: 0.025 ±0.005, -0.010.

WIDTH OF SCALE ARC ABOVE VU: .045 ±0.005, -0.010.

WIDTH OF MINOR CALIBRATION MARKS: 0.015 ±0.005.

ALL SCALE MARKING (LETTERS AND NUMBERS): 0.015 ±0.005 WIDTH OF LINES, 0.060 ±0.010 WIDTH LETTERS, 0.075 ±0.005 HEIGHT LETTERS.

- (A<sub>2</sub>) METER SHALL BE FURNISHED WITH A SUITABLE NEOPRENE GASKET TO PROVIDE A WATER TIGHT SEAL BETWEEN METER AND PANEL.

TABLE I

RMS, VOLTS	SCALE MARK, VU	MAX. ERROR, VU
.775	-4	±0.15
.869	-3	±0.13
.975	-2	±0.10
1.095	-1	±0.08
1.159	-0.5	±0.05
1.228	0	±0
1.300	+0.5	±0.05
1.378	+1	±0.8
1.546	+2	±0.10
1.735	+3	±0.10

LIST OF MATERIAL

COLLINS PART NO. 3590363-00 F

TABLE II

SCALE MARK PERCENT	VOLT RMS
0	0
25	0.307
50	0.614
75	0.921
100	1.228

COLLINS NO.	QTY	NEXT ASSY	USED ON

APPLICATION

DRAWN DCN  
CHECKED BG  
APPROVED

UNLESS OTHERWISE SPECIFIED:  
DECIMAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±.005  
FRACTIONAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±1/64  
MACHINED ANGLES MAY VARY ±1°  
SHEARED ANGLES MAY VARY ±.25°  
BROKEN ANGLES MAY VARY ±1°  
ECCENTRICITY BETWEEN ANY DIAMETERS ON THE SAME CENTERLINE SHALL NOT EXCEED .010 TOTAL INDICATOR READING.  
ALL DIMENSIONS ARE FINISH DIMENSIONS INCLUDING APPLIED FINISH AND ARE GIVEN IN INCHES

COLLINS-RABIN CO.  
14219 PH-51-93  
SIGNAL CORPS  
REVIEWED PME  
APPROVED HLY PME  
DATE 29 SEPT 58

METER

DEPARTMENT OF THE ARMY  
SIGNAL CORPS ENGINEERING  
LABORATORIES  
FORT MONMOUTH NEW JERSEY

5M-C-283217

SCALE 1/1