

Customer: ALPS ELECTRIC EUROPA GmbH

No. F3852497M

Date: Nov. 22, 1994

Attention:

Your ref. No: 22 3005

Your Part. No: STRS 30102

SPECIFICATIONS

ALPS:

MODEL STRS30102K

Spec. No.:

Sample No.: F3852497M

RECEIPT STATUS

RECEIVED

By. Date 25/1/05

Signature PSL

Name

Title

ALPS ELECTRIC CO., LTD.

HEAD OFFICE
1-7, YUKIGAYA-OHTSUKA-CHO.
OHTA-KU, TOKYO 145 JAPAN

DSG'D M. Fujita

APP'D H. Ito

ENG. DEPT. DIVISION

Sales

SPECIFICATIONS

1. THIS SPECIFICATIONS APPLY TO RS3011114 POTENTIOMETERS.

2. CONTENTS OF THIS SPECIFICATIONS.

4S3018-302M
4S0008-45M
4S0001-200M, 4S0001-201M
S3018G402A


3. MARKING


-MARKING ON ALL UNITS
DATE CODE, RESIST. VALUE, TAPER, TRADE MARK, JAPAN

4. REMARKS

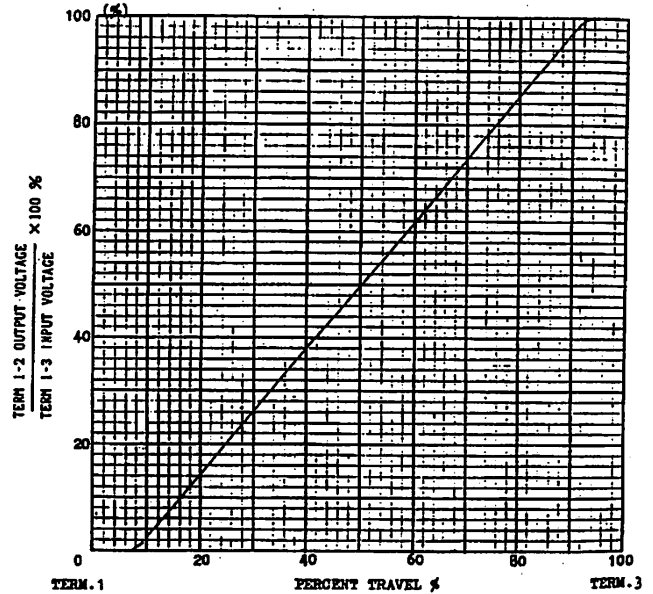
• NOTES

•Marking ⇒ in specifications shows standard and condition for application.

CLASS NO.	TITLE																		
	STANDARD TYPE POTENTIOMETER (SLIDE)																		
ELECTRICAL																			
1. Overall resistance :																			
Overall resistance tolerances : $\pm 20\%$ Unit : K Ω																			
<table border="1"> <tr> <td>5</td> <td>10</td> <td>20</td> <td>50</td> <td>100</td> <td>200</td> <td>250</td> <td>500</td> <td>1,000</td> </tr> </table>		5	10	20	50	100	200	250	500	1,000									
5	10	20	50	100	200	250	500	1,000											
2. Minimum resistance :																			
Overall resistance (K Ω) Unit : Ω																			
<table border="1"> <tr> <td>5,10</td> <td>20,50</td> <td>100</td> <td>200, 250</td> <td>500</td> <td>1000</td> </tr> <tr> <td>30</td> <td>50</td> <td>100</td> <td>200</td> <td>300</td> <td>500</td> </tr> <tr> <td>50</td> <td>70</td> <td>120</td> <td>220</td> <td>320</td> <td>500</td> </tr> </table>		5,10	20,50	100	200, 250	500	1000	30	50	100	200	300	500	50	70	120	220	320	500
5,10	20,50	100	200, 250	500	1000														
30	50	100	200	300	500														
50	70	120	220	320	500														
3. Taper : ALPS "B" (SBS48)																			
4. Rated power : 0.2 Watts.																			
5. Rated voltage : Rated voltage = $\sqrt{P \cdot R}$ (V)																			
P : rated power (W)																			
R : nominal overall resistance (Ω)																			
When the rated voltage exceeds the maximum operating voltage the maximum operating voltage shall be the rated voltage.																			
Maximum operating voltage : A.C. 200V , D.C. 10 V																			
6. Dielectric test : Units shall be designed to withstand 300 volts A.C. 50 Hz R.M.S. between resistance elements and case for a period of one minute without damage or arcing.																			
7. Insulation resistance : Greater than 100 megohms between resistance elements and case when tested by a 250 volts D.C. insulation resistance meter.																			
8. Sliding lifetest : 15,000 cycles																			
<p>• Lever shall be operable with speed of 20 mm per sec. without noise by static electricity.</p>																			
 ALPS ELECTRIC CO., LTD.																			
<table border="1"> <tr> <td>APPR.</td> <td>CHKD.</td> <td>DSGD.</td> <td>TITLE</td> </tr> <tr> <td><i>Apr 30/81</i></td> <td></td> <td></td> <td>SPECIFICATIONS</td> </tr> <tr> <td colspan="4">DOCUMENT NO. 4S3018-302M</td> </tr> </table>		APPR.	CHKD.	DSGD.	TITLE	<i>Apr 30/81</i>			SPECIFICATIONS	DOCUMENT NO. 4S3018-302M									
APPR.	CHKD.	DSGD.	TITLE																
<i>Apr 30/81</i>			SPECIFICATIONS																
DOCUMENT NO. 4S3018-302M																			
SYMB.	DATE	APPR.	CHKD.	DSGD.															

USED ON	NAME
30 mm TRAVEL TYPE TONE	RESISTANCE TAPER
 ALPS ELECTRIC CO., LTD. 1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKYO JAPAN	TITLE
	SPECIFICATIONS

TAPERED CURVE: ALPS "B"



NOTES: PERCENT VOLTAGE CHECK POINT TOLERANCE
 50% TRAVEL FROM TERM.1 40-60%

APPR.	CHKD.	DSGD.	NAME
<i>Apr 28/81</i>		<i>Apr 28/81</i>	RESISTANCE TAPER
SYMB. DATE APPR. CHKD. DSGD.			DOC. NO. SBS48

-16 212

5-114

CLASSNO. TITLE STANDARD TYPE POTENTIOMETER (SLI-)

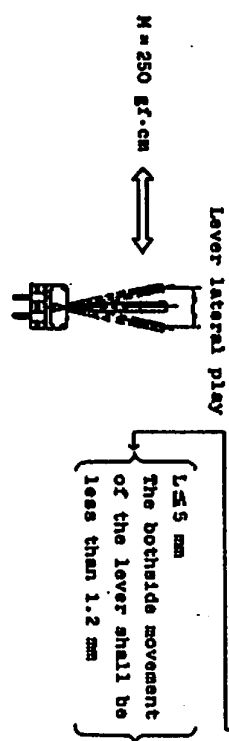
MECHANICAL

1. Travel : Specified in particular Figure.
2. Operating force : 30-250 gf (Note 1)
3. Starting force : Operating force + 100 gf max. (Note 1)
(Note 1) Measuring temperature : 5°C - 35°C

Measuring point :
 → : 5 mm from lever end (Lever length > 6 mm)
 : 1 mm from lever end (Lever length ≤ 6 mm)
 Sliding speed : 20 mm per sec.

4. Stop strength :
 → 5 kgf at a position 5 mm from mounting surface.
 (Lever length > 6 mm)
 5 kgf at a position 2 mm from mounting surface.
 (Lever length ≤ 6 mm)

5. Lever lateral play :
 When an alternating bending moment of 250 gf·cm is applied perpendicular to the direction of lever travel, the bothside movement of the lever shall be less than 2. (2X L / 20) mm
 L: Lever length on the measurement point from mtg. surface.
 (Note 2) Exempt wiring of insulated lever.



6. Lever strength :
 (1) To be resistant with 5 kgf static force of pull or push applied to lever in thrust direction for 10 seconds without damage.

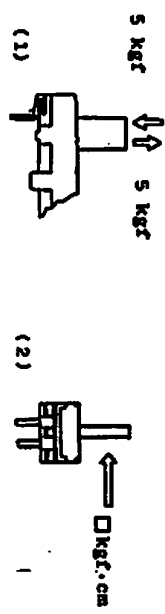
ALPS ELECTRIC CO., LTD.

APPR.	CHCK.	ISSUE	TITLE	DOCUMENT NO.
APR 71	APR 71	APR 71	SPECIFICATIONS	450008-45M (1/2)
DATE	APPR.	CHCK.	ISSUE	

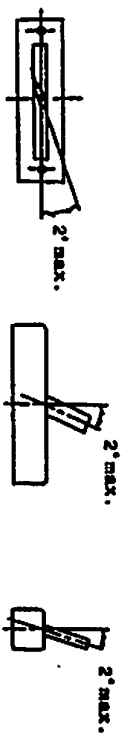
CLASSNO. TITLE STANDARD TYPE POTENTIOMETER (SLIDE)

(2) To be resistant with following static force applied to lever in vertical direction to lever driving for 10 seconds without damage.

- ① 2 kgf·cm over : in case of pot., mounted to chassis with screws.
- ② 0.5 kgf·cm over : in case of pot., mounted to P.C.B. only with terminals.
- ③ 2 kgf·cm over : in case of pot., mounted to P.C.B. with both terminals and mounting plate.



7. Lever inclination and twist :
 Twist : 2° max.
 Inclination : 2° max.
 Inclination : 2° max.



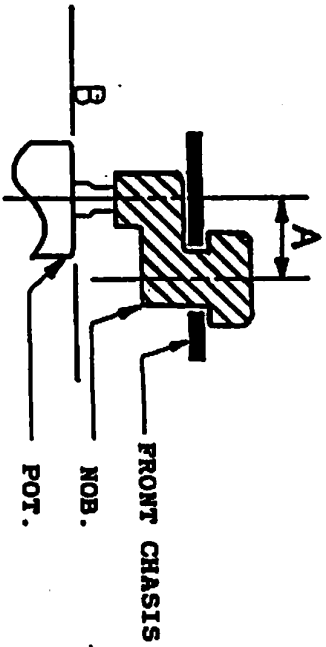
8. Resistance to soldering heat : 3 sec. max. at 300°C

ALPS ELECTRIC CO., LTD.

APPR.	CHCK.	ISSUE	TITLE	DOCUMENT NO.
APR 71	APR 71	APR 71	SPECIFICATIONS	450008-45M (2/2)
DATE	APPR.	CHCK.	ISSUE	

PRECAUTION IN USE

1. If it will be used the operating point away from the center line of the lever, it should be shorter as possible.
2. About the length of lever
If conditions permit, it is advisable to use the shortest possible lever. The longer the length up to operating point, the more unfavorable slide feeling will be given.
3. Regarding the operation of the lever, please consider the above mentioned, and make sure nothing is wrong with the operation under installing in your appliance that you plan to use our products actually.

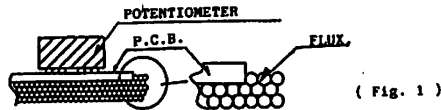


APPRD.	CHKD.	DSGD.	ALPS ELECTRIC CO., LTD. SLIDE POTENTIOMETER DOCUMENT NO. 450001-200M		
Aug. 9/91	Aug. 9/91	Aug. 9/91			
...			
DATE	APPR	CHKD	DSGD		



FOLLOW THE NEXT CONDITIONS FOR SOLDERING

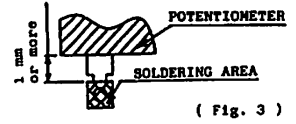
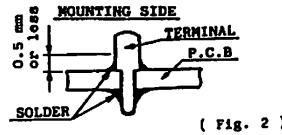
1. Solder
63 % Sn solder specified in JIS Z3282.
2. Board in Use
Double-faces through-hole board or
Single-face copper laid laminate board.
Plate thickness (t) = 1.6 mm
3. In the Case of Dip Soldering
 - (1) State of potentiometer
Position a lever in the vicinity of center.
 - (2) Specific Gravity of Flux
0.83 ± 0.01 (foaming type)
 - (3) Height of Flux face
A level of the upper face of flux for reaching the position at a half of the plate thickness of printed board. (Fig.1)
Further, no flow of flux invading on the surface of printed board on the side of installing potentiometer is allowed.



- (4) Preheat Condition
100°C MAX., within 1 minute
(Temperature on the side of installing printed board is designated.)
- (5) Soldering Condition
Solder temperature; 260°C MAX.
Soldering period ; within 5 seconds
Time of soldering ; only one time is permitted
4. In the Case of Manual Soldering
Solder temperature ; 300°C MAX.
Soldering period ; within 3 seconds
Time of soldering ; only one time is permitted

5. Matters to Be Noted

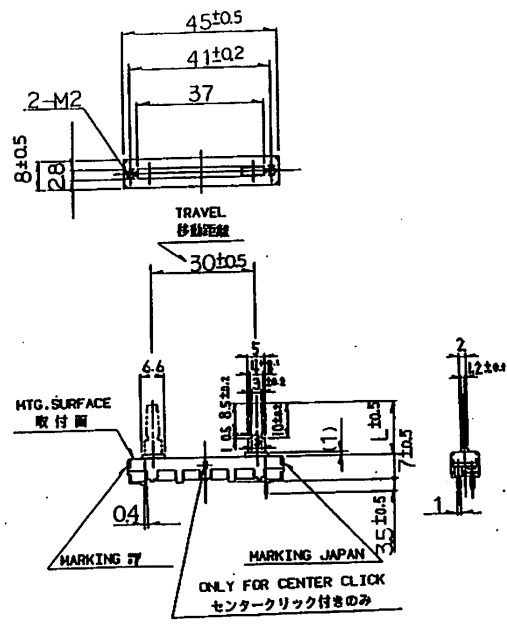
- (1) Do not add any stress on terminals in the case of soldering.
For instance, forced movement of potentiometer with terminals being heated may probably deteriorate the electric features due to generation of looseness in connection between resistant board and terminals.
- (2) Avoid use of double-faces through-hole board as much as possible. If it is necessary to use it. Do not apply through-hole plating to a hole in which a potentiometer is inserted, and install a land to which terminals are soldered only on a face opposite to the face on the side of installing potentiometer.
- (3) Use caution to soldering process so as to prevent solder from rising up to the surface of printed board on the side of installing potentiometer, because defective contact may take place in terminal connecting part due to soldering heat (Fig. 2)
- (4) In the case of lead wiring, solder it so that a gap of 1 mm or more may be reserved between the potentiometer body and soldering part. (Fig. 3)



- (5) The grade of influence of soldering exerted on the potentiometer depends upon the size of a printed board, installing position of the potentiometer, and the size of a solder bath etc. Therefore, make sure, in advance, of no abnormal state under the conditions of soldering to be carried out at present.

					ALPS ELECTRIC CO., LTD.		
		APPD.	CHKD.	DSGD.	TITLE		
		Sep. 15 '91	Sp. 5 '91	Sp. 5 '91	SLIDE POTENTIOMETER		
		G. Ake H. Ito M. Sato			DOCUMENT NO.		
					4S0001 - 201M		
FORM	DATE	APPD.	CHKD.	DSGD.			

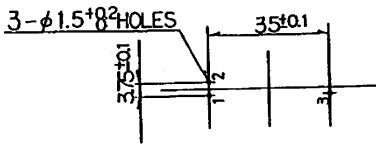
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- NOTES
1. MOUNTING SCREW THREAD LENGTH IS CHASSIS THICKNESS + 2 mm MAX.
取付用ネジの筒下長さは、シャーシ板厚 + 2 mm 以下とする。
 2. TOP SIDE OF KNOB SHALL BE MOUNTED TO LEVER WITHIN 3.0 mm LENGTH FROM LEVER MTG. SURFACE.
取付面からツマミ先端まで 3.0 mm 以内でご使用願います。

L	NO CLICK クリックなし	P/N 登録	WITH CENTER CLICK センタークリック付き	P/N 登録
25	S3018G401A	614-1	S3018K401A	614-1
20	S3018G402A	614-1	S3018K402A	..
15	S3018G403A	614-1	S3018K403A	614-1

MOUNTING HOLE DETAIL 取付寸法図
(VIEWED FROM MOUNTING SIDE) (挿入側より)



許容誤差の指定なき寸法の公差		ALPS ELECTRIC CO., LTD.	
TOLERANCES UNLESS OTHERWISE SPEC		UNIT	SCALE
BASIC DIMENSIONS	TOLERANCE	mm	mm
L ≤ 10	± 0.3	APPR.	CHKD.
10 < L < 100	± 0.5	Apr. 26 '88	Apr. 7 '88
100 ≤ L	± 0.8	DISP.	Apr. 1 '88
ANGULAR DIMENSIONS	公差 ± 5°	FIGURE: SLIDE POTENTIOMETER 30mm SINGLE UNIT	
		30形滑動スライドボリューム組立図	
		DOCUMENT NO. S3018-4111	