

Customer: AEE-DS

No. SS-95-0634

Date: Jul. 31, 1995

Attention: _____

Your ref. No: _____

Your Part. No: ALPS-ALLTRONIC

101543

SPECIFICATIONS

ALPS:

MODEL RS6011266
(100KA X 2)

Spec. No. : _____

Sample No. : F4517756M

RECEIPT STATUS
 RECEIVED
 By. Date _____
 Signature _____
 Name _____
 Title _____

ALPS ELECTRIC CO., LTD.

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

DSG'D H. Himura

APP'D Y. Yoshitaka

ENG. DEPT. DIVISION

Sales _____

SPECIFICATIONS

1. THIS SPECIFICATIONS APPLY TO RS6011266 POTENTIOMETERS.

2. CONTENTS OF THIS SPECIFICATIONS.

4S6028-411M
4S0008-45M
4S0001-200, 4S0001-201
S6028P623A

3. MARKING

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

4. REMARKS

· NOTES

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

PRELIMINARY copy.

CLASSNO. TITLE STANDARD TYPE POTENTIOMETER (SLIDE)

ELECTRICAL

1. Overall resistance :
 Overall resistance tolerances : $\pm 20\%$ Unit : K Ω

5	10	20	50	100	200	250	500	1,000
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2. Minimum resistance : Unit : Ω

Overall resistance (K Ω)	5,10	20,50	100	200	500	1000
Across term.1-2	30	50	100	200	300	500
Across term.2-3	50	70	120	220	320	500

3. Taper : "A" (SAS16)
 4. Rated power : 0.1 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.150 V, 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.

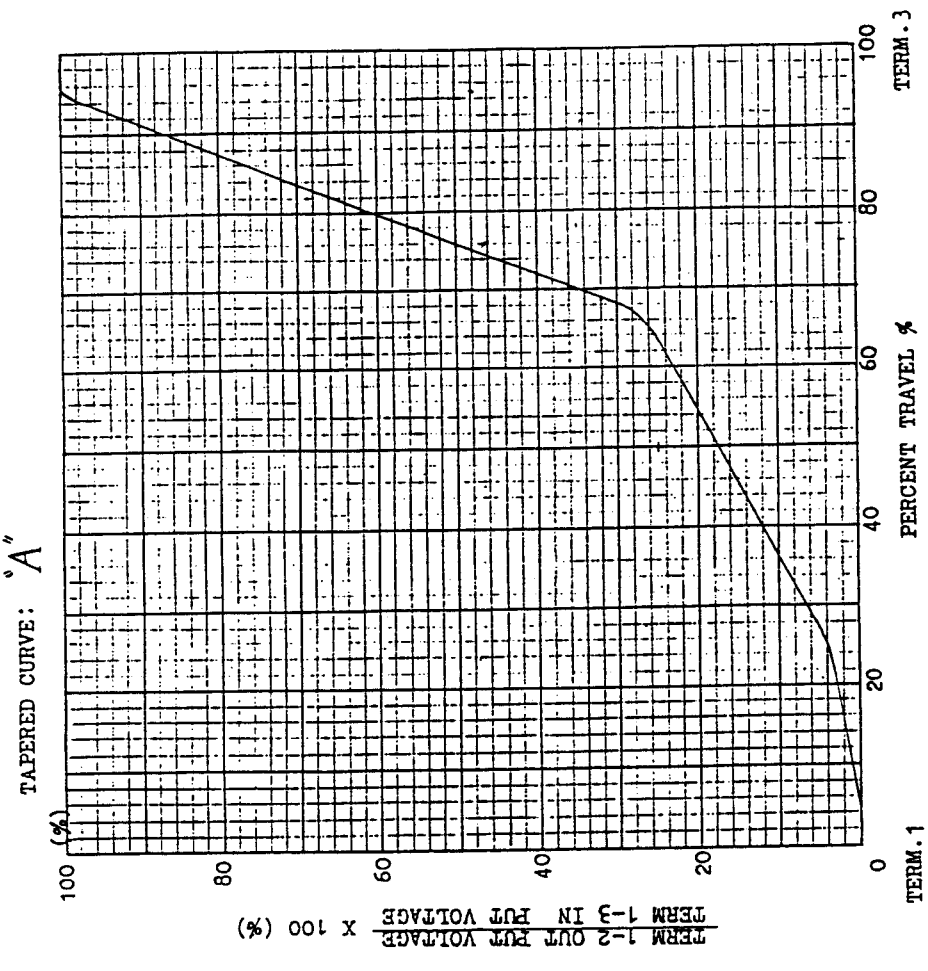
7. Insulation resistance : Greater than 100 megohms between resistance elements and case when tested by a 250 volts D.C. insulation resistance meter.

8. Tracking error : 3 dB from -40 to 0 dB
 9. Sliding lifetest : 15,000 cycles

* Lever shall be operable with speed of 20 mm per sec. without noise by static electricity.

SYMB	DATE	APPD.	CHKD.	DSCD.	ALPS ELECTRIC CO., LTD.	TITLE	SPECIFICATIONS
		Aug. 9/91		May 16/91			
						DOCUMENT NO.	4S6028-411M

USED ON 45.60 mm TRAVEL TYPE	NAME RESISTANCE TAPER
ALPS ELECTRIC CO., LTD. 1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKYO JAPAN	TITLE SPECIFICATIONS



NOTES: PERCENT VOLTAGE CHECK POINT
 50% TRAVEL FROM TERM.1
 TOLERANCE 10-25%

SYMB	DATE	APPD.	CHKD.	DSCD.	NAME	RESISTANCE TAPER
		Aug. 28.81		Aug. 28.81		
					DWG. NO.	SAS16

CLASS.NO.

TITLE

STANDARD TYPE POTENTIOMETER (SLIDE)

MECHANICAL

- Travel : Specified in particular Figure.
- Operating force : 30 - 250 gf (Note 1)
- 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.

→ 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 $2 (2 \times L / 20)$ mm

L: Lever length on the measurement point from mtg. surface.

(Note 2) Exempt warping of insulated lever.

Lever lateral play



M = 250 gf.cm



L ≤ 5 mm

The bothside movement of the lever shall be less than 1.2 mm

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.

CLASS.NO.

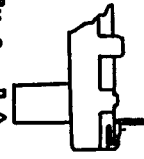
TITLE

STANDARD TYPE POTENTIOMETER (SLIDE)

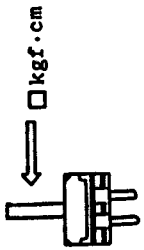
(2) To be resistant with following static force applied to lever in vertical direction to lever driving for 10 seconds without damage.

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

5 kgf ↓ ↑ 5 kgf



(1)



(2)

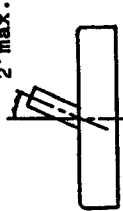
7. Lever inclination and twist :

Twist



2° max.

Inclination



2° max.

Inclination



2° max.

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

DATE	APPD.	CHKD.	DSGD.	TITLE	SPECIFICATIONS
1991.11.10	W. Sato	W. Sato	W. Sato	STANDARD TYPE POTENTIOMETER (SLIDE)	4 S 0 0 8 - 4 5 M (1/2)
1991.11.10	W. Sato	W. Sato	W. Sato	STANDARD TYPE POTENTIOMETER (SLIDE)	4 S 0 0 8 - 4 5 M (1/2)

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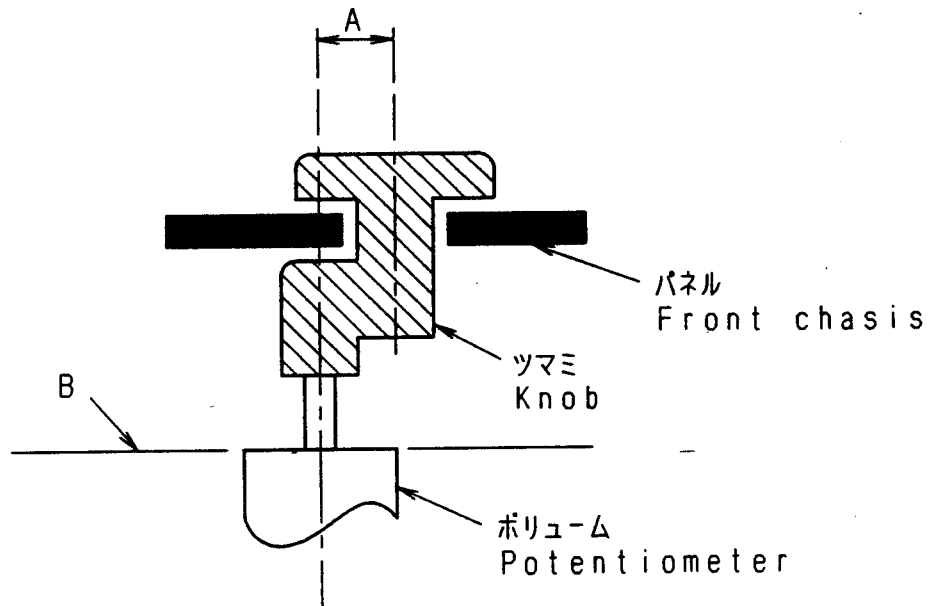
DATE	APPD.	CHKD.	DSGD.	TITLE	SPECIFICATIONS
1991.11.10	W. Sato	W. Sato	W. Sato	STANDARD TYPE POTENTIOMETER (SLIDE)	4 S 0 0 8 - 4 5 M (1/2)
1991.11.10	W. Sato	W. Sato	W. Sato	STANDARD TYPE POTENTIOMETER (SLIDE)	4 S 0 0 8 - 4 5 M (1/2)

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ご使用上の注意
PRECAUTION IN USE

1. 偏心ツマミをご使用になる場合
 レバーの中心より離れたところを作用点としてご使用になる場合、可能な限り
 下図A寸法を短くしてご使用下さい。
 If it will be used the operating point away from the center line of the lever, it should be shorter as possible.
2. レバー長さについて
 レバー長さについては、ツマミを含めて、下図B面より極力短いものをご使用願います。レバー長さについては、作用点までの距離が短いほどしゅう動感覚が良好となり、長いほど好ましくない感覚になります。
 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.



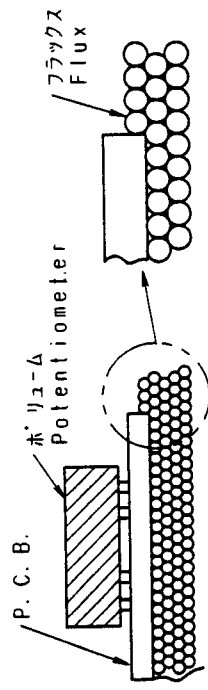
3. レバーの駆動に関しては上記内容を考慮の上、セット実装を行い
 あらかじめ異常のないことをご確認願います。
 Regarding the operation of the lever, please consider the above mentioned, and make sure nothing is wrong with the operation under installing in your appliance that you plan to use our products actually.
4. ツマミ挿入及びレバー操作は、ホリウムマウント基板に
 ソリ(曲がり)のない状態で行って下さい。
 Knob assembly on the lever and functioning the lever to be performed under the condition of P. C. B. without warp.

					ALPS ELECTRIC CO., LTD.					
					APPD.	CHKD.	DSGD.	TITLE		
					PDI-ENGI	PDI-ENGI	PDI-ENGI	スライドホリウム仕様書		
					'95.7.24	'95.7.24	'95.7.24	SPECIFICATIONS		
					YOSHIOKA	KIMURA	Y.SAITOH	DOCUMENT NO.		
ORIGINAL	91-7-3	Y·Y	K·N	S·A	4S0001-200					
SYMB	DATE	APPD	CHKD	DSGD						

**はんだ付け条件
FOLLOW THE NEXT CONDITIONS FOR SOLDERING**

1. はんだ SOLDER
JIS Z 3282に規定の63% Snはんだを使用
63% Sn solder specified in JIS Z 3282.
使用基板 BOARD IN USE
片面スルーホール基板又は、片面銅箔積層板 板厚 t=1.6mm
Double-faces through-hole board or Single-face copper laid laminate board.
Plate thickness (t)=1.6mm
自動はんだ<DIP条件>
(1) レハ、位置 センター付近に設定願います。
(2) フラックス比重 0.83±0.01 (発泡式)
(3) フラックス高さ プ・リント基板の板厚の半分の位置にフラックスの上面が接するレベル (図1) 又、ホ、リウム挿入面への流れ込みのないこと。(フラックス上がり、糸状に注意)
(4) プ・リト温度 100°C max. 時間1分以内。(プ・リント基板のホ、リウム挿入面の温度) 260°C max. 時間5秒以内。 はんだ回数は1回までとする。

- 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



(Fig. 1)

4. 手はんだ IN THE CASE OF MANUAL SOLDERING
はんだ温度 300°C max. 時間3秒以内 はんだ回数は1回までとする。
Solder temperature : 300°C max.
Soldering period : within 3 seconds
Time of soldering : only one time is permitted

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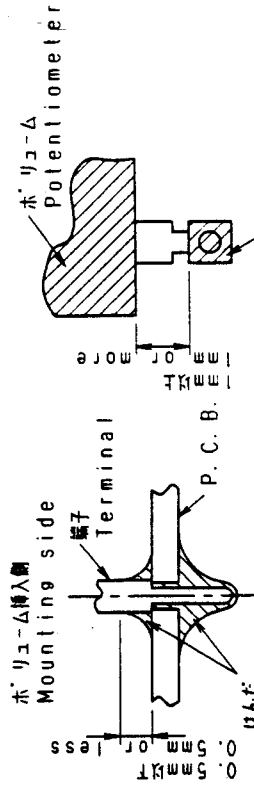
APPRO.	CHKD.	DSGD.	TITLE
35.7.24	35.7.24	35.7.24	スライト・ホ、リウム 仕様
YOSHIDA	YAMAZAKI	YAMAZAKI	SPECIFICATIONS 1/2
Y.Y.	S.A.	S.S.	DOCUMENT NO. 4S0001-201
91-9-3	91-9-3	91-9-3	SYMB. DATE APPD. CKD. DSGD.

5. 注意事項

- (1) はんだ付けの際に、端子にストレスを加えないで下さい。例えば、端子に熱を加えたまま製品を動かしますと、かしめ力、夕及び電気的特性が劣化する恐れがあります。
- (2) 片面スルーホール基板を使用する場合は、ホ、リウム挿入側の端子取り付け穴に、はんだランドがないようにご配慮願います。ホ、リウム挿入側での配線が必要な場合は端子取り付け穴からの直線取り出しをご配慮スルーホール配線用の穴を設けるなどのご配慮をお願いします。
- (3) ホ、リウム挿入側へのはんだ上がり、はんだ熱による端子接触不良の発生原因となりますので(図2)を参照願います。
- (4) リート・配線の場合、ホ、リウム本体と、はんだ付け部の距離を1mm以上開けてはんだ付け願います。(図3)
- (5) はんだ付けによるホ、リウムへの影響は、プ・リント基板の大きさ、ホ、リウムの取り付け位置、はんだの大きさ、等により異なりますのであらかじめ実使用状態で実施し、貴客の意にかなうことを確認の上、はんだ付けして下さい。

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.



(Fig. 2)

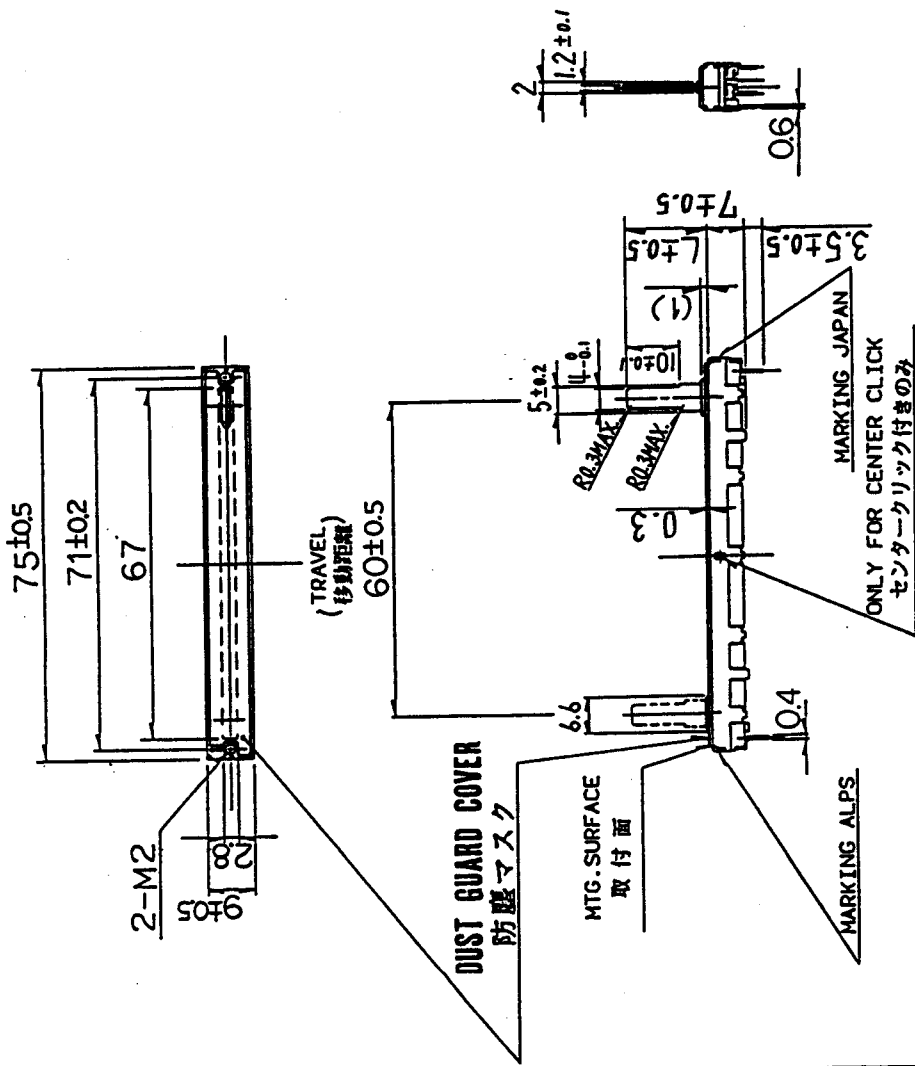
(Fig. 3)

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APPRO.	CHKD.	DSGD.	TITLE
35.7.24	35.7.24	35.7.24	スライト・ホ、リウム 仕様
YOSHIDA	YAMAZAKI	YAMAZAKI	SPECIFICATIONS 2/2
Y.Y.	S.A.	S.S.	DOCUMENT NO. 4S0001-201
91-9-3	91-9-3	91-9-3	SYMB. DATE APPD. CKD. DSGD.

NOTES

1. MOUNTING SCREW THREAD LENGTH IS CHASSIS THICKNESS + 2 mm MAX.
取付用ネジの首下長さは、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	S6028P686A	70.3.12	S6028P687A	..
20	S6028P654A	87.11.26	S6028P688A	..
15	S6028P623A	88.3.28	S6028P689A	..

許容誤差の指定なしの公差	
TOLERANCES UNLESS OTHERWISE SPEC	
BASIC DIMENSIONS TOLERANCE	
L ≤ 10	± 0.3
10 < L < 100	± 0.5
100 ≤ L	± 0.8
ANGULAR DIMENSION	角 ± 5°

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UNIT: mm

SCALE: DSGD. May 1987

FIGURE: SLIDE POTENTIOMETER 60mm DUAL UNIT

60形2速スライドポリユーム組立図

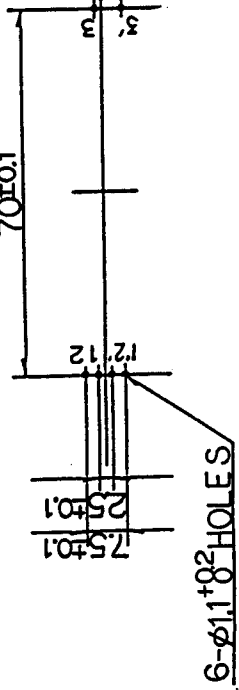
DOCUMENT NO. S6028-6311

APPR. May 1989

DESIGNER: H. Yamada

DATE: ..

ZONE: STAMP



MOUNTING HOLE DETAIL
(VIEWED FROM MOUNTING SIDE) (挿入側より)