JOYSTICK CONTROLLERS SPECIFICATIONS

1.	Model No.	S30JLK-XI-10R1GH-5542
2.	Mechanism	With spring return device

MECHANICAL PERFORMANCES

3.	Outer appearance and dimensions	As per attached drawing No. 242-5542 -2
4.	Mechanical operating angle	±20°～±25°
5.	Operating force of lever	Abt.1N～Abt.3.5N (Abt.100gf～Abt.350gf)

ELECTRICAL PERFORMANCES

6. Specs. for pot.

1)	Total resistance value	5KΩ ±20%
2)	Independent linearity	±5%
3)	Electrical rotating angle	40°±5°
4)	Power rating	0.1W
5)	Center return accuracy	50%±5%
6)	Output smoothness	Below 0.2% against input voltage
7)	Contact resistance variation	Below 6% C.R.V.
8)	Resolution	Essentially infinite
9)	Dielectric strength	1 minute at 500V A.C.
10)	Insulation resistance	Over 1,000 MΩ at 500V D.C.
11)	Output characteristics and terminal connection diagram	As per attached drawing No. 242-5542 -1-3
12)	Wiper current	Below 10 μA

SYM.	DATE	DESCRIPTION	APPD.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				M.Y	M.Y	K.S	K.S	MODEL NO S30JLK-XI-10R1GH-5542
				DATE 15. JUN. 2001		3RD ANGLE PROJECTION		DWG NO 242-5542 -1-1

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OTHERS

7.	Operating temperature range	−20℃～+60℃
8.	Vibration	10～55Hz, 98m/s^2 (10G) (According to MIL-STD-202F-204)
9.	Shock	294m/s^2 (30G) (According to MIL-STD-202F-213)
10.	Life expectancy	Approx. 2,000,000 operations

(This item shows life expectancy shall be based on test conditions under which lever shall be moved forward and backward per each operation at the speed of 40 reciprocating motions per minute in normal room temperature.)

11. Lever strength — **Max. 100N (Max. 10kgf)**

(This value shows the value of static load to the part of knob.)

12. Tensile strength of leadwire — **Max. 10N (Max. 1kgf)**

13. Index of protection — **IP = 65**

14. Important notice for operating joystick controllers

1) Please refer to precautions for using joystick controllers in our joystick controller catalog.
2) In case of with spring return device, when repeating spring return action without gripping with hand, the life expectancy may be shorter than specified, because such operation may bring over worn out the resistance element of the potentiometer at the center position and other damages of inner construction. Lever operation is preferably made as slow and stable as possible.
3) Potentiometer used on these joystick controllers employ precision class conductive plastic resistance elements, and therefore, please make sure that these joystick controllers should always be used with voltage method (Voltage shall be applied between terminal ① − ③ and output obtained from terminal No. ②).
4) Please also take care that more than 1mA shall not flow through terminal No. ② (Movable contact), even though instantaneous, because over current burns out the resistance element and there is possibility that the linearity makes lower, and noise occurs.
5) Please refer to our precision potentiometers catalog respectively, about technical matters of potentiometers used in these joystick controllers.

SYM.	DATE	DESCRIPTION	APPD.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				M.Y	M.Y	K.S	K.S	
				DATE 15. JUN. 2001	3RD ANGLE PROJECTION			MODEL NO S3CJLK-X1-10R1GH-5542
								DWG NO 242-5542 -1-2
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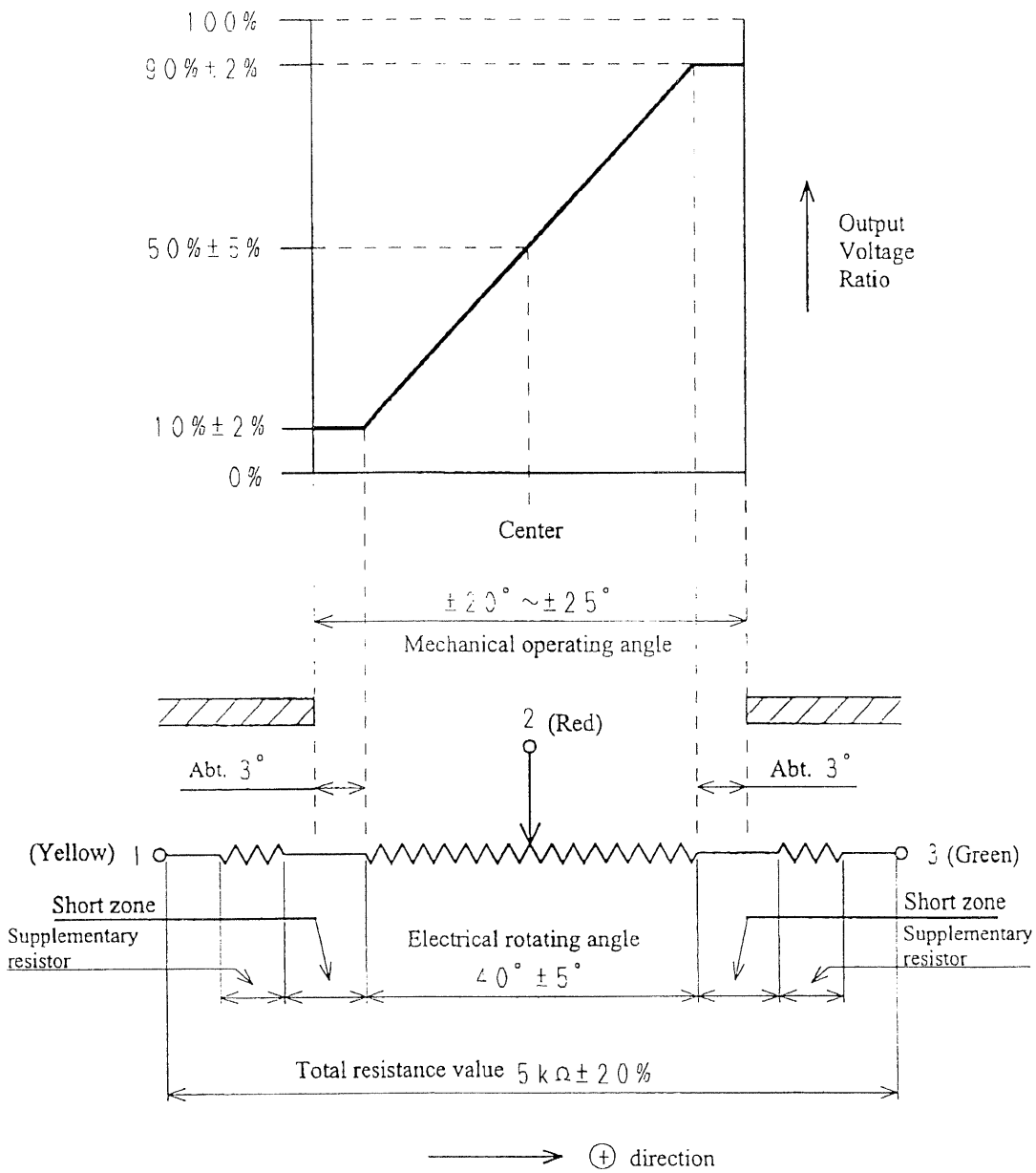
OUTPUT CHARACTERISTICS AND TERMINAL CONNECTION DIAGRAM



NOTE: The color of leadwire is shown in parenthesis

SYM.	DATE	DESCRIPTION	APPD.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				M.Y	M.Y	K.S	K.S	MODEL NO. S30JLK-X1-10R1GH-5542
				DATE 15. JUN. 2001	3RD ANGLE PROJECTION			DWG. NO 242-5542 -*-3

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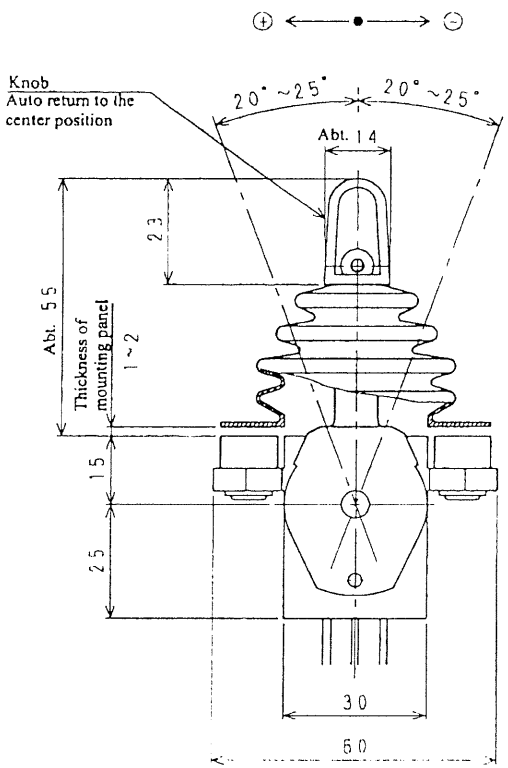
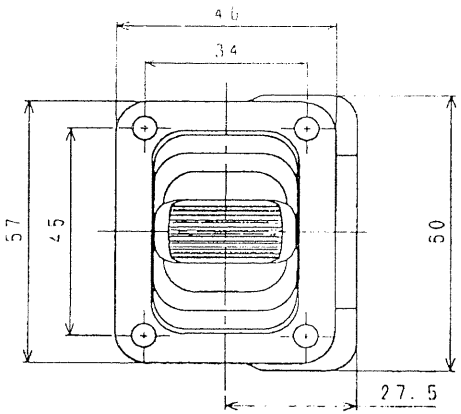
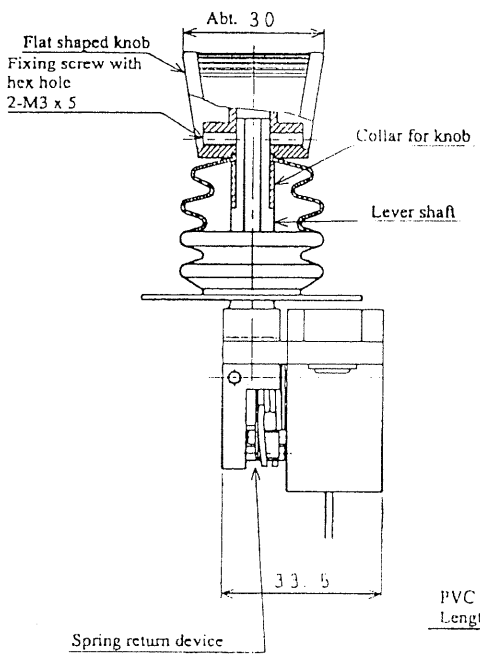
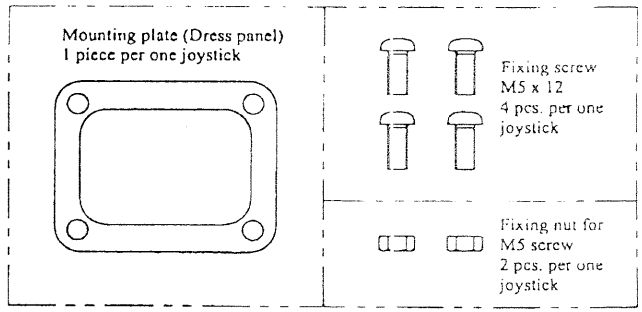
DIRECTION OF LEVER OPERATION (I TYPE)

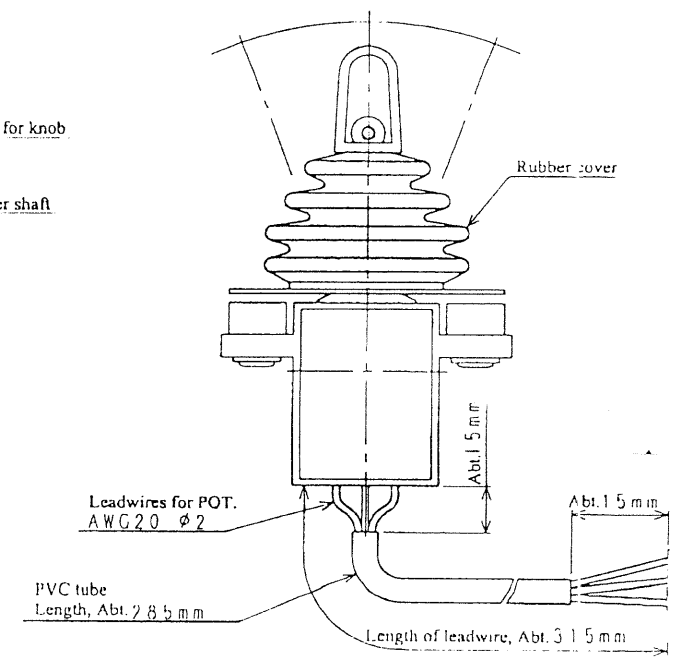






The necessary numbers of the following mounting plate, fixing screw and fixing nut are enclosed in each carton box when shipping. (The following parts are packed separately and then, enclosed)





STN.	DATE	DESCRIPTION	APPD.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				M.Y	M.Y	K.S	K.S	MODEL NO. S30JIK XI-TORIGH 5542
				DATE 15. JUN. 2001	3RD ANGLE PROJECTION			DWG. NO. 242-5542-2
								SCALE 1/1 UNITS mm SHEET 4 OF 4