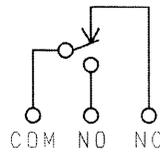


7. Specs. for microswitch (SW1,SW2)

- | | |
|------------------------------|--|
| 1) Model No. | D2JW-01K21 manufactured by OMRON |
| 2) Rating | 30V D.C., 100mA |
| 3) Operating characteristics | SW1 : "ON" is to be made between abt.-5° ~ abt.-20° from center position.
("ON" between COM and NC terminals)
SW2 : "ON" is to be made between abt.+5° ~ abt.+20° from center position.
("ON" between COM and NC terminals) |
| 4) Dielectric strength | 1 minute at 600V A.C. |
| 5) Insulation resistance | Over 100M Ω at 500V D.C. |
| 6) Mechanical durability | Approx. 1,000,000 operations |
| 7) Electrical durability | Approx. 100,000 operations |
| 8) Circuit diagrams | |



OTHERS

- | | |
|--------------------------------------|--|
| 8. Operating temperature range | -20°C ~ +60°C |
| 9. Vibration | 10 ~ 55Hz, 98m/s² (10G)
(According to MIL-STD-202F-204) |
| 10. Shock | 294m/s² (30G)
(According to MIL-STD-202F-213) |
| 11. Life expectancy | Approx. 2,000,000 operations
<i>(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 c.p.m. in normal room temperature.)</i> |
| 12. Lever strength | Max.50N (Max.5kgf)
<i>(This value shows the value of static load to the part of knob.)</i> |
| 13. Tensile strength of leadwire | Max.10N (Max.1kgf) |
| 14. Ingress protection | IP = 65 |
| 15. How to mount joystick controller | As per attached drawing No. 242-5908-3 |

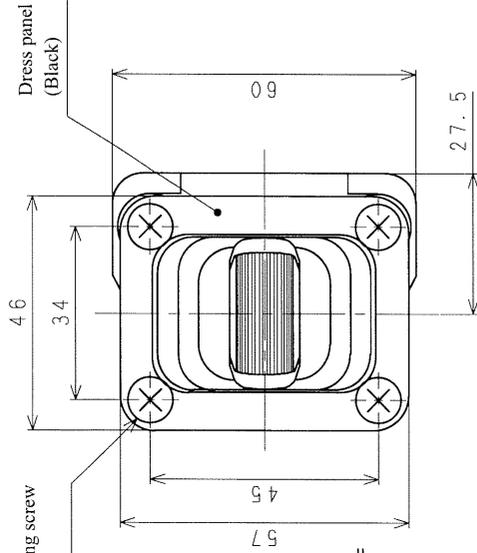
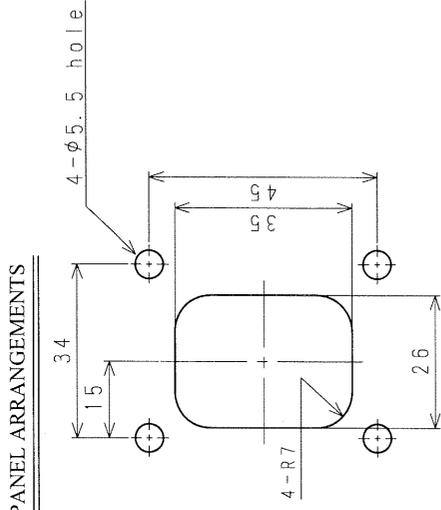
SYM.	DATE	DESCRIPTION	APPD.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				<i>Y.L</i>	<i>T.H</i>	<i>M.Y</i>	<i>K.S</i>	MODEL NO. S30JLK-XI-12R1GH-5908
				DATE 13, JUN, 2005	3RD ANGLE PROJECTION			DWG. NO. 242-5908-1-2
				 CALDARO AB • Tet +46 (0)8 736 12 70 P.O. Box 30049 • SE-104 25 STOCKHOLM, Sweden				SCALE / UNITS mm SHEET 2 OF 5

16. 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 resistive 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 employs precision class conductive plastic resistive 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 resistive 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 the joystick controller.

SYM.	DATE	DESCRIPTION	APPO.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE	
				<i>Z.J.</i>	<i>T.H.</i>	<i>M.Y.</i>	<i>K.S.</i>	MODEL NO. S30JLK-XI-12R1GH-5908	
				DATE 13. JUN. 2005	3RD ANGLE PROJECTION			DWG. NO. 242-5908-1-3	
				 CALDARO AB • Tel +46 (0)8 736 12 70 P.O. Box 30049 • SE-104 25 STOCKHOLM, Sweden				SCALE / UNITS NTS. mm	SHEET 3 OF 5

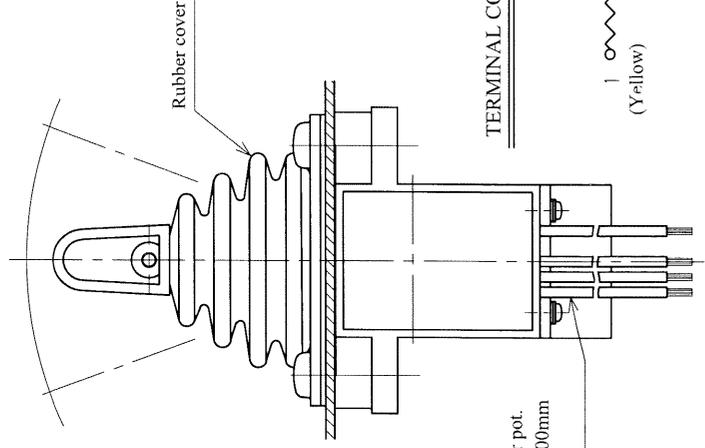
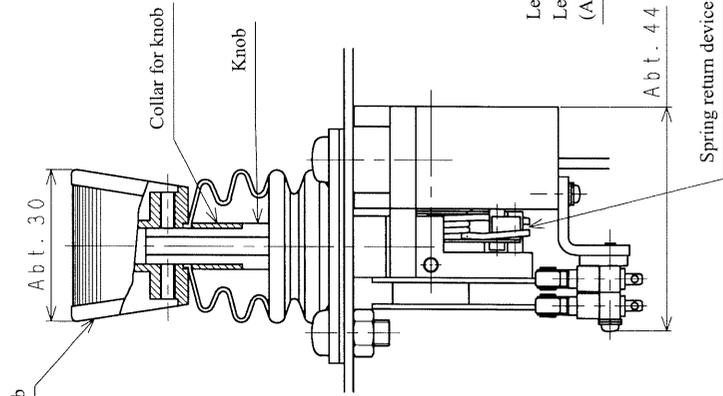
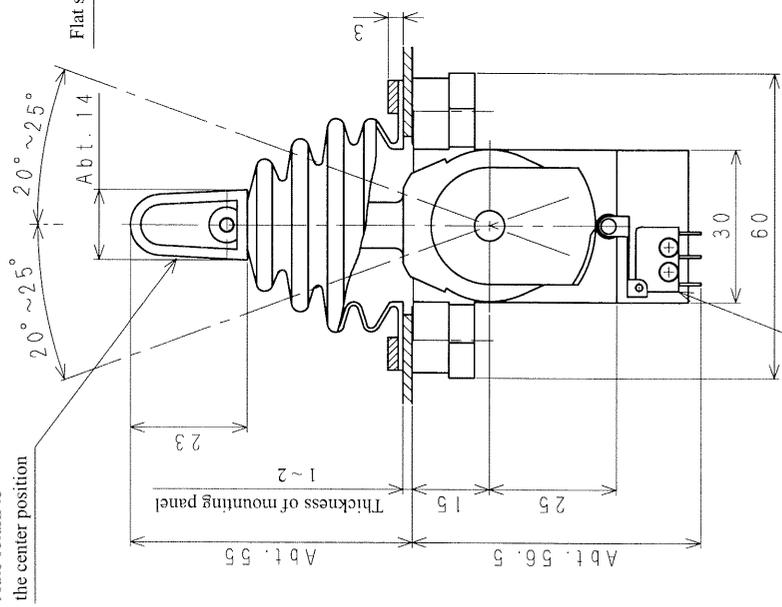
PANEL ARRANGEMENTS



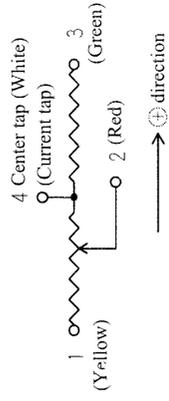
DIRECTION OF LEVER OPERATION (I TYPE)



Knob
Auto return to
the center position



TERMINAL CONNECTION DIAGRAMS



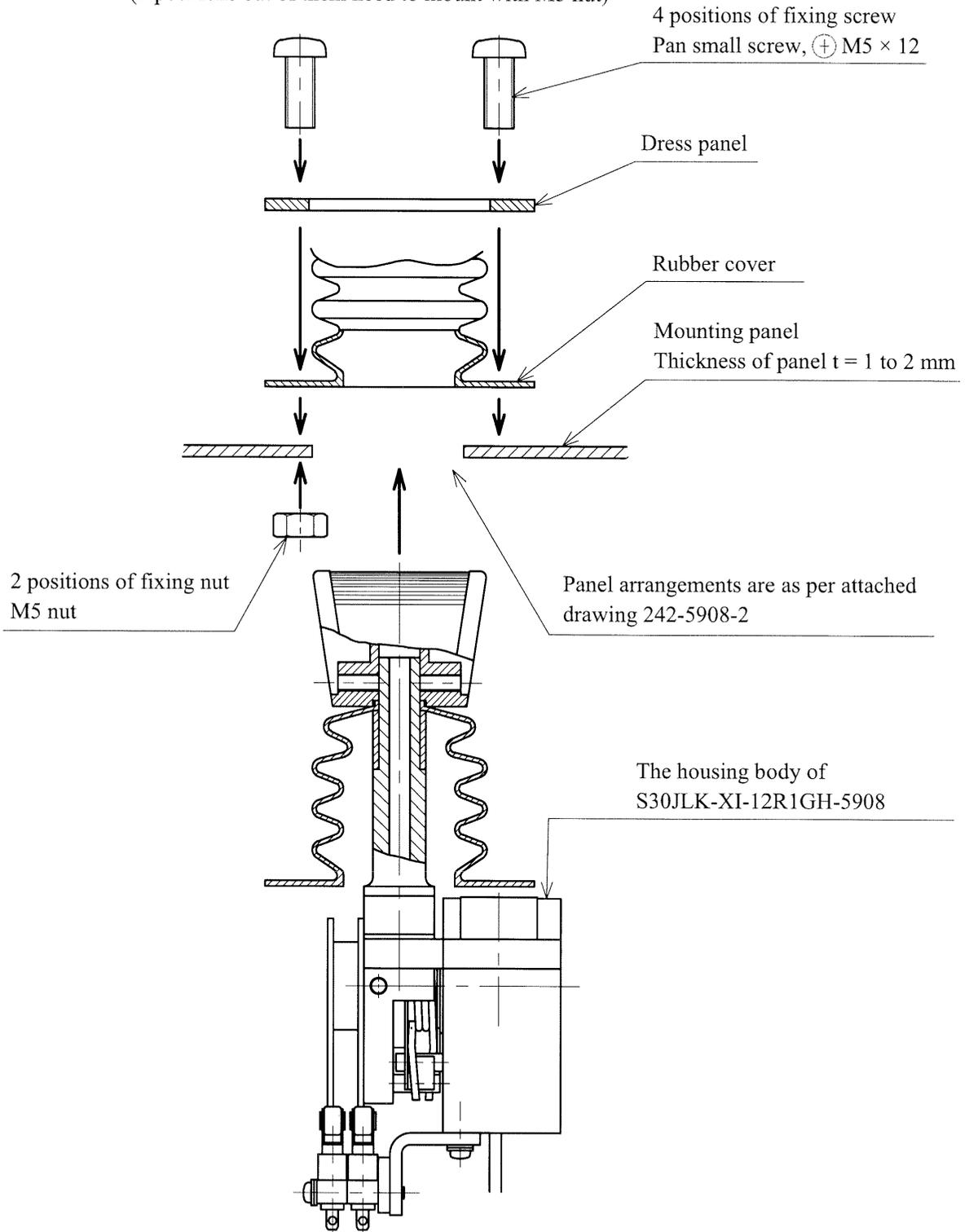
With 2 pcs. of
microswitch (SW1,SW2)

SW	DATE	DESCRIPTION	APPROVED	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				Y.L.	T.H.	M.Y.	K.S.	MODEL NO. S30JLK-XI-12RICH-5908
								DATE 13. JUN. 2005 3RD ANGLE PROJECTION DWG. NO. 242-5908-2
								SCALE 1/1 UNITS mm SHEET 4 OF 5

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P.O. Box 30049 • SE-104 25 STOCKHOLM, Sweden

HOW TO MOUNT JOYSTICK CONTROLLER

- 1 : Remove 4 positions of pan small screw, M5 × 12 on the dress panel
(2 positions out of them have M5 nut) and then, remove dress panel.
- 2 : As illustrated, mount the joystick, dress panel and rubber cover with
4 positions of pan small screw, M5 × 12 on your device.
(2 positions out of them need to mount with M5 nut)



SYM.	DATE	DESCRIPTION	APPD.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE
				Y.L	T.H	M.Y	K.S	MODEL NO. S30JLK-XI-12R1GH-5908
				DATE 13, JUN, 2005		3RD ANGLE PROJECTION		DWG. NO. 242-5908-3
				CALDARO AB • Tel +46 (0)8 736 12 70 P.O. Box 30049 • SE-104 25 STOCKHOLM, Sweden				SCALE / NTS. UNITS mm SHEET 5 OF 5