# JOYSTICK CONTROLLERS SPECIFICATIONS

1. Model No.

S30JEK-YX-05R2G-7053

2. Mechanism

With spring return device

With special push button switch

## **MECHANICAL PERFORMANCES**

3. Outer appearance and dimensions

As per attached drawing No.242-7053-2

4. Mechanical operating angle

X and Y axes:  $\pm 10^{\circ}$   $\sim \pm 15^{\circ}$ 

5. Operating force of lever

X and Y axes : Abt.0.8N  $\sim$  Abt.2N (Abt.80gf  $\sim$  Abt.200gf)

#### ELECTRICAL PERFORMANCES

6. Specs. for X and Y axes switch (SW1 ~ SW4)

1) Model No.

2) Rating

2) Rating3) Operating characteristics

B3F-1000 manufactured by OMRON

24V D.C. below 50mA (resistance load)

stics <For X axis>

SW1 (Green x 2)

: ON up to  $\bigcirc$  directional

end from center position

SW2 (White x 2) : ON up to (+) directional

end from center position

<For Y axis>

SW3 (Yellow x 2)

: ON up to (-) directional

end from center position

SW4 (Red x 2)

: ON up to (+) directional

end from center position

NOTE: The color of leadwires is shown in

parenthesis

4) Dielectric strength

5) Insulation resistance

6) Circuit diagram

1 minute at 500V A.C.

Over 100M  $\Omega$  at 250V D.C.

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				y.l	T.H	M.Y	K.S	MODEL NO.		- Y X - 0 5 R 2	G-7053
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SYM.	DATE	DESCRIPTION	APPO.	DESIGNED	DRAWN	CHECKED	APPROVED	TITLE			

7. Specs. for push button switch (SW5)

1) Model No.

ITW 59-111

2) Rating 100mA, 50V D.C. (400mA, 32V A.C.)

3) Operating characteristics

Momentary type (SW-ON when pushed)

4) Dielectric strength

1 minute at 1,000V A.C.

5) Insulation resistance

Over 1,000M  $\Omega$  at 500V D.C. Approx. 1,000,000 operations

6) Mechanical durability Electrical durability

8) Circuit diagrams

Approx. 500,000 operations



NOTE: The color of leadwire is shown in parenthesis.

## **OTHERS**

8. Operating temperature range

 $-20^{\circ}$ C $\sim$ +65 $^{\circ}$ C

9. Vibration

 $10 \sim 55$ Hz, 98m/s<sup>2</sup> (10G)

(According to MIL-STD-202F-204)

10. Shock

294m/s<sup>2</sup> (30G)

(According to MIL-STD-202F-213)

11. Life expectancy

Approx. 1,000,000 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 c.p.m. in normal room temperature.)

12. Lever strength

Max.50N (Max.5kgf)

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

13. Tensile strength of leadwire

Max.10N (Max.1kgf)

14. Ingress protection

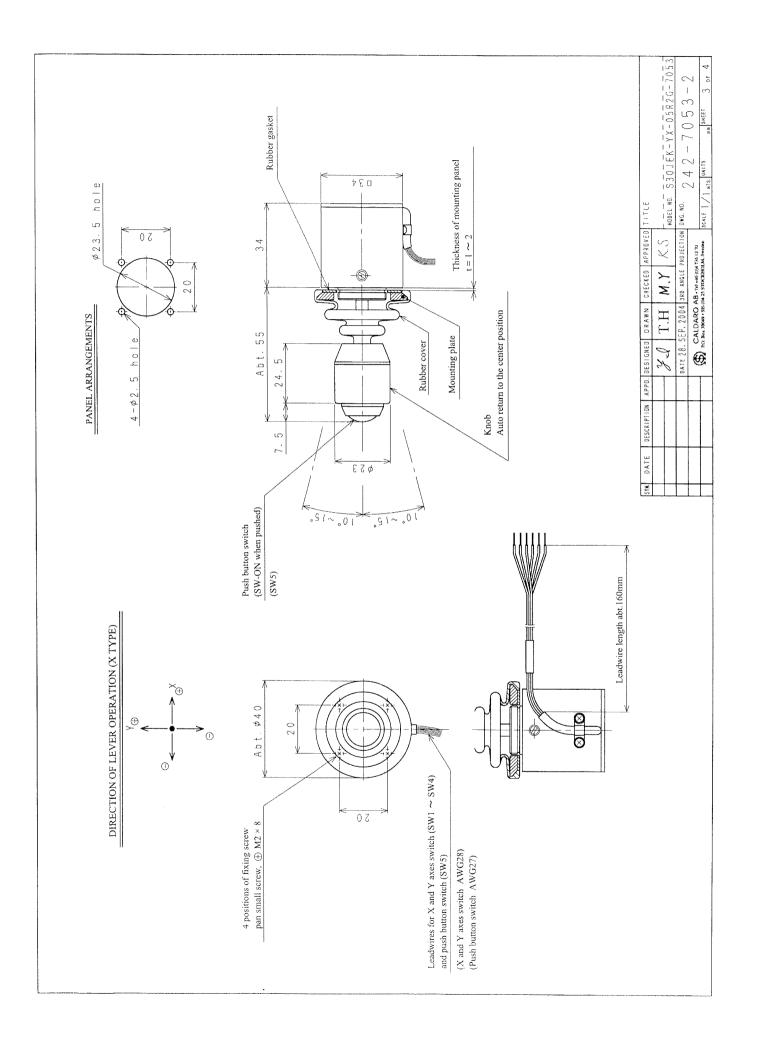
(This value shows the value from above panel towards knob only.)

15. How to mount joystick controller

As per attached drawing No. 242-7053-3

- 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 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.

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				CALDARO AB • Tel +46 (U)8 736 12 7U P.O. Box 30049 • SE-104 25 STOCKHOLM, Sweden					242-7055-1-2
				PO.	Box 30049 • SE-	104 25 STOCKH	OLM, Sweden	SCALE /	NIS UNITS SHEET 2 OF 4



# HOW TO MOUNT JOYSTICK CONTROLLERS

- 1. You can see mounting plate when turning up rubber cover.
- 2. Remove 4 positions of pan small screw,  $M2 \times 8$  on the mounting plate and then, remove mounting plate and rubber gasket.
- 3. As shown in the above illustration, mount them by 4 positions of pan small screw, M2 × 8 to the mounting panel of your device, according to the order of the body of joystick, mounting panel and rubber gasket.
- 4. Finally, the rubber cover is covered to the mounting plate.

