

Fig. 1 Circuit Diagram

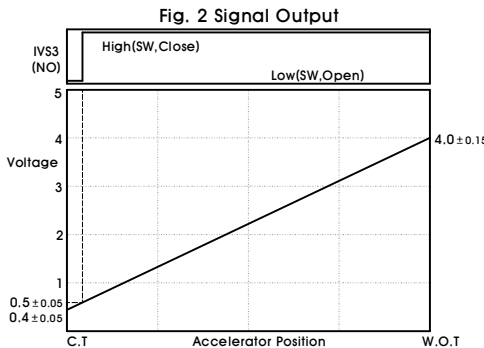
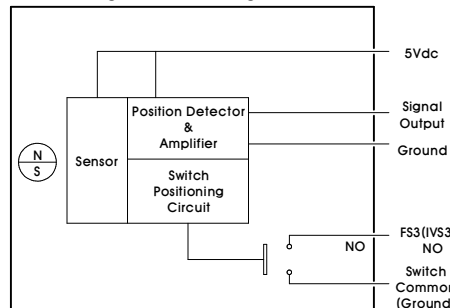
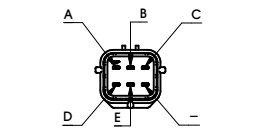
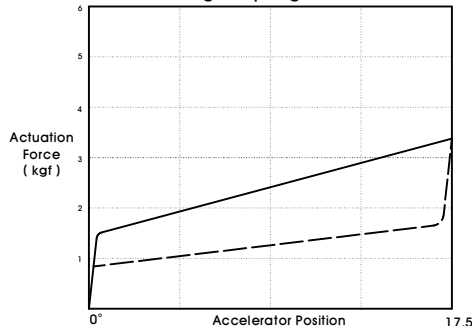
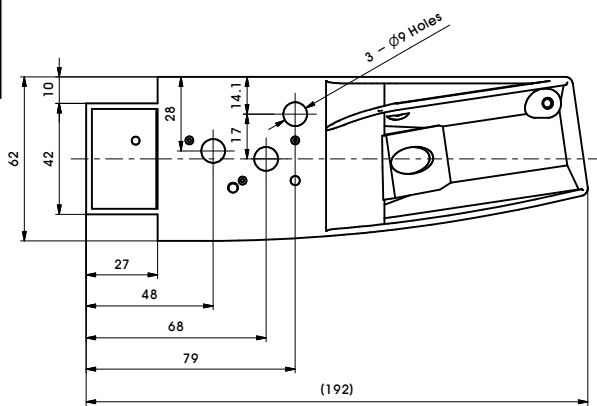


Fig. 3 Spring Force



| Pin Location | Description | Color |
|--------------|-------------------------|--------|
| A | Power Input, Vcc | Red |
| B | Pedal Signal Output, Vs | Green |
| C | Ground (Signal) | Black |
| D | Switch Common(Ground) | Yellow |
| E | FS3(IVS3), NO | Blue |
| - | - | - |



REVISION HISTORY

| REV | DESCRIPTION | DATE | DR | RE | AP |
|-----|-------------|-----------|----------|---------|---------|
| 0 | Issued | 27.Nov.17 | S.W.Kang | J.I.Kim | H.M.Lee |

1. General Layout
 1) Non - Contacting Sensing Technology.
 2) This drawing is satisfied with FMVSS124.
 3) International Patent Pending.

2. Mechanical Conditions
 - A static pedal force is applied at a point of 150mm from the pedal pivot axis and perpendicular to the pedal surface.
 (Initial Load : 0.9kgf(min) Full Throttle Load : 3.3kgf(max)); See Fig.2.
 - End-Break force : 160kgf± 5kgf will not damage any pedal parts.

3. Electrical Conditions
 1.0 Environmental Conditions:
 Operating Temperature : -40°C ~ +85°C
 Storage Temperature : -40°C ~ +120°C

2.0 Electrical Characteristics
 2-1 Type of sensing element
 2.1.1 Input Voltage(Vcc) : 5Vdc ± 2%
 2.1.2 Operation Current(Iop) : 10mA(Normal), 15mA(Max)
 2.1.3 Reverse Pararity : Not Protected, Withstand 3min(Max)
 2.1.4 Electrical Travel : See Fig.2.
 2.1.5 Independent Linearity : ± 2%
 2.1.6 Signal Load : 10kohms, C=4.7nF Tested.

2-2 Type of Switch(IVS) : Semiconductor Relay Switch
 2.2.1 Switch Working Current Range : 0.05mA ~ 12mA
 Max Current 20mA
 2.2.2 Switch Operation Current(Isw) : 10mA
 2.2.3 Switch Resistance : 1kohms ± 10% at switch closed, >100Mohms at switch open
 2.2.4 Switch Pararity : No parity
 2.2.5 Switch Voltage : 5V, 12V, 24V
 2.2.6 Switch Position
 Switch Position shall be discussed at PO and fixed at factory before delivery. See Fig.2

3.0 Mechanical Specifications
 3-1 Mechanical Travel : 17.5± 2

4.0 Electrical Connection
 AMP J - Series Connector: for 6 wire 174264 - 2 (CAP)

5.0 Material
 Pedal Foot Plate : PA66+GF30%
 Pedal Bottom Plate : Aluminum (ADC12)
 Cable : AEXI or AVXI (0.50mm)

6.0 Marking
 Sensor serial number and pedal production number shall be indicated and recorded before despatch at factory.

7.0 Durability
 Subject to over 10million cycles between idle and full throttle position at a rate of approx. 100 cycles per minute. Any wear observed, e.g., on the mechanical stops checked to be in compliance with the initial condition values.

8.0 Environment Test

| 项目 (ITEM) | 试验方法 (Test Method) | 决策标准 (Decision Standard) |
|--------------------------|---|--------------------------|
| 震动测试 (Vibration Test) | 重力加速度9G, 波高10~200Hz, 加振8小时(上下4小时, 左右2小时, 前后2小时) (Subject to broadband 9G Vibration between 10 and 200Hz for 8hours(4,2,2hour) in all 3 axis) | 正常运行 (Normal Operation) |
| 冲击测试 (Shock Test) | 冲击加速度20G, 持续11msec 进行测试 (After Exposed 11ms at Acceleration 20G(ZERO to PEAK)) | 正常运行 (Normal Operation) |
| 跌落测试 (Impact Test) | 在1米高度的水泥地 自由落下6次 (Subject to a drop test onto a smooth concrete floor from a height of one meter a total of 6 times) | 正常运行 (Normal Operation) |
| 高压测试 (High Voltage Test) | APS-12V电压 3分钟测试, IVS 3.8V电压 3分钟测试 (APS Signal : After Exposed 3min, to 12Volts IVS Signal : After Exposed 3 min, to 3.8Volts) | 正常运行 (Normal Operation) |
| 温度测试 (Temp. Test) | -40°C ~ 85°C温度条件下测试100cycles (After Exposed -40° C ~ 85° C (100 cycles) | 正常运行 (Normal Operation) |
| 湿度测试 (Humidity Test) | 温度31°C ~ 70°C, 湿度96% 条件下测试 (After Exposed to -32° C ~ 70° C (96%) | 正常运行 (Normal Operation) |
| 盐雾测试 (Salt Fog Test) | 盐雾喷雾状态下放置96小时 (JIS 22371规格) (After Exposed 96 Hours at Salt Fog (JIS 22371)) | 正常运行 (Normal Operation) |
| 化学测试 (Chemical Test) | 液体3秒中应浸入3分钟后测试 (Exposed to 3 second dipping in each of the test fluids, followed by a 3 minutes air dry) | 正常运行 (Normal Operation) |

ComeSys Control & Measurement Systems Limited

| Rev | By | Date | Description |
|-----|----------|-----------|-----------------------|
| DR | S.W.Kang | 28.Nov.17 | Do Not Scale |
| EC | J.I.Kim | 28.Nov.17 | Third Angle Isometric |
| AP | H.M.Lee | 28.Nov.17 | Sheet 1 of 1 |

| Application Model | Material | Weight | Heat Treatment |
|-------------------|----------|--------|----------------|
| BYD | --- | --- | --- |

Customer Part No. FY3-112-94