

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

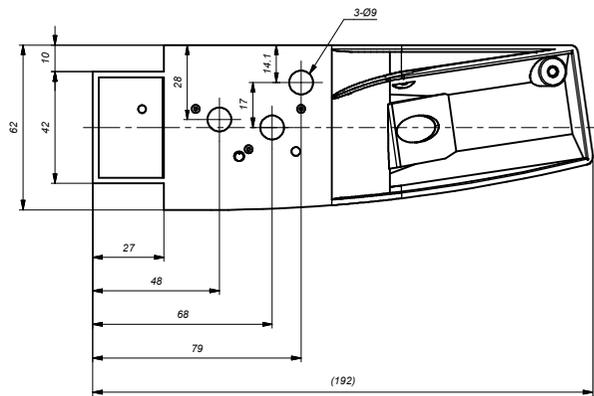


Fig. 1 Circuit Diagram

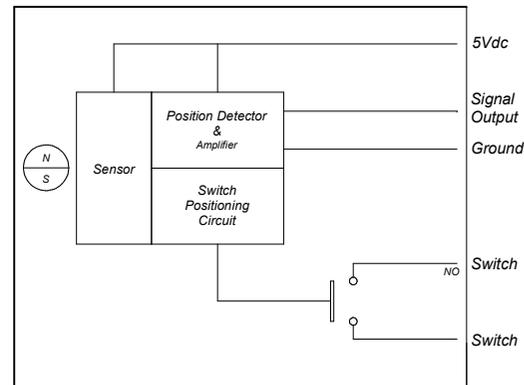


Fig. 2 Signal Output

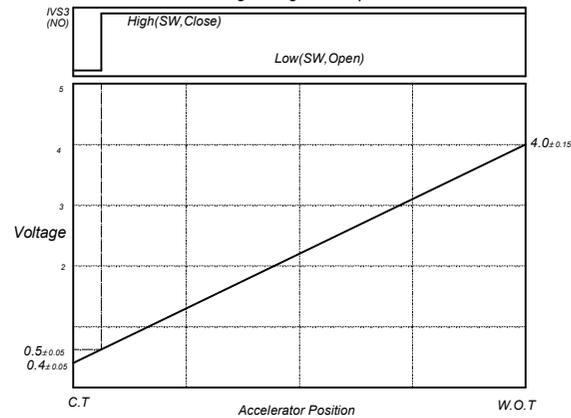
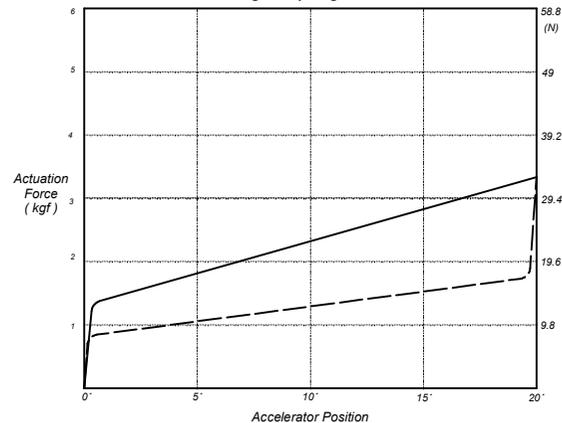


Fig. 3 Spring Force



1. General Layout

Non - Contact Sensing Technology.
This drawing is satisfied with FMVSS124.
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 : 3.3kgf(MAX) ; See Fig2.
- 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 : 10kΩ, 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 : 1kΩ ± 10% at switch closed,
≥ 100MΩ 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+GF33%
Pedal Bottom Plate : Aluminum (ADC12)
Cable : AEXf or AVXf (0.50mm²)

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

Item	Test Method	Decision Standard
Vibration Test	Subject to broadband random vibration between 20 and 2000Hz for 20hours in all 3 axis.	Normal Operation
Shock Test	After Exposed 11ms at Acceleration 20g(ZERO to PEAK)	Normal Operation
Impact Test	Subject to a drop test onto a smooth concrete floor from a height of one meter a total of 5 time	Normal Operation
High voltage Test	APS Signal : After Exposed 3min. at 12Volts IVS Signal : After Exposed 3min. at 38Volts	Normal Operation
Temp. Test	After Exposed -40°C ~ 85°C (100 cycles)	Normal Operation
Humidity Test	After Exposed at -32°C ~ 70°C (96%)	Normal Operation
Salt Fog Test	After Exposed 96 Hours at Salt Fog (JIS 22371)	Normal Operation
Chemical Test	Exposed to 3 second clips in each of the test fluids, followed by a 3 minutes air dry	Normal Operation

ComeSys Control & Measurement Systems Limited		Name	
General Telephone For Marketing (RS 2412)		Electric Accelerator Pedal Ass'y (MTFY3)	
Sales Office: 174264-2 (CAP)		Application Model	
Sales Office: 174262-2 (PLUG)		Danaher Motion Tokyo	
Sales Office: 174264-2 (CAP)		Material	
Sales Office: 174262-2 (PLUG)		Paint & Surface Treatment	
Sales Office: 174264-2 (CAP)		Weight	
Sales Office: 174262-2 (PLUG)		Heat Treatment	
Sales Office: 174264-2 (CAP)		Customer Part No.	
Sales Office: 174262-2 (PLUG)		ComeSys Part No.	
Sales Office: 174264-2 (CAP)		Drawing No.	
Sales Office: 174262-2 (PLUG)		FY3-112-70	
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