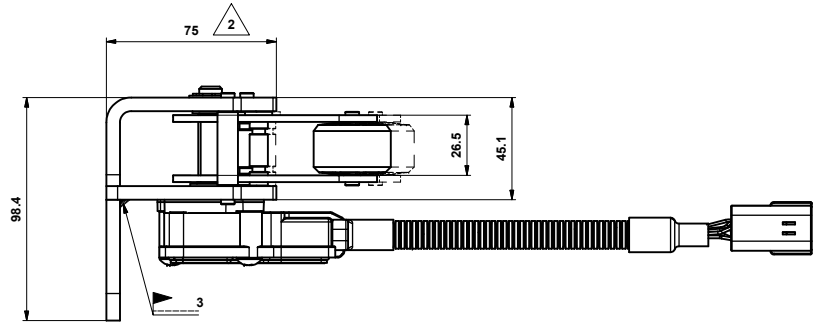
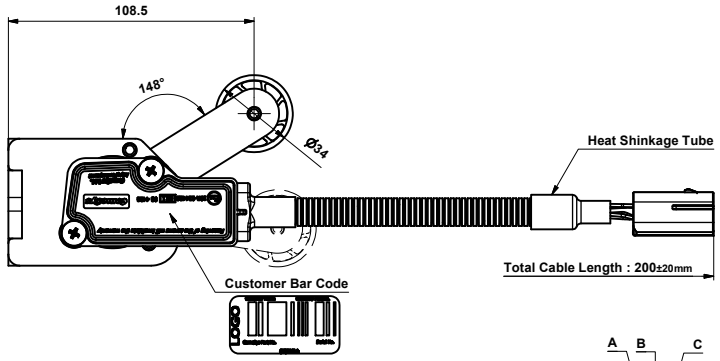
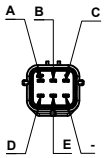
Part No. **8094279**
FZ12-153-47 △1







Pin Location	Description	Color
A	Power Input, Vcc/Switch In	Red
B	Pedal Input, Vcc	Green
C	Ground	Black
D	Switch, NO	Yellow
E	Switch, NO	Blue
-	-	-

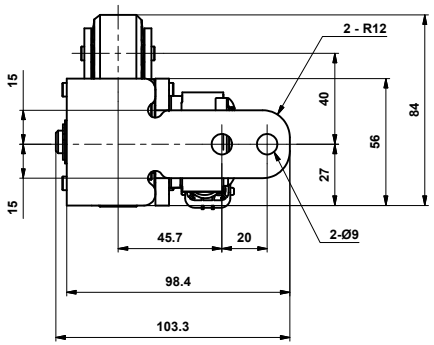


Fig. 1 Circuit Diagram

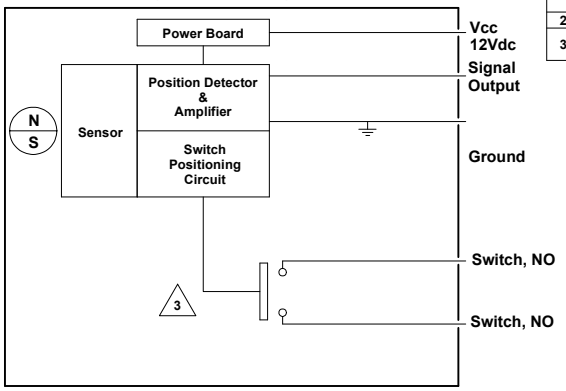


Fig. 2 Signal Output

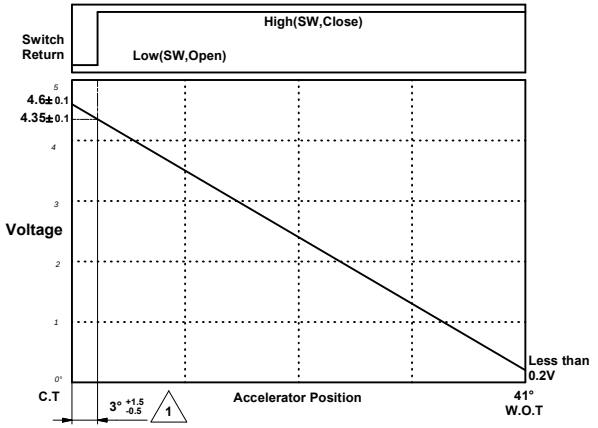
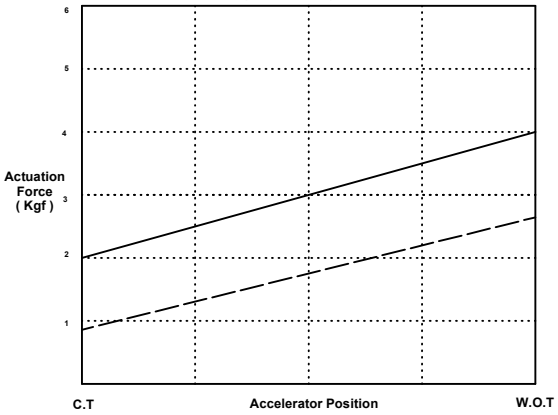


Fig. 3 Spring Force



REVISION HISTORY

REV	DESCRIPTION	DATE	DR	RE	AP
0	Issued	18.May.10	D.H.Shin	J.I.Kim	H.M.Lee
1	Add Customer Part No. Tolerance Change 3±2.0 → 3+1.5/-0.5	07.Feb.13	S.H.Sung	J.I.Kim	H.M.Lee
2	Length Revision 90mm → 70mm	22.Apr.14	S.H.Sung	J.I.Kim	H.M.Lee
3	Change Switch Type Micro → MOSFET	11.Nov.15	S.H.Park	J.I.Kim	H.M.Lee

1. General Layout
Non Contact Sensing has been applied.
This drawing is satisfied with FMVSS124.
International Patent Pending.

2. Mechanical Conditions
A stactic pedal force is applied at a point of 150mm from the pedal pivot axis and perpendicular to the pedal surface.
(Initial Load : 2.0kgf(MIN), Full Throttle : 4.0kgf± 0.5kgf(MAX)
- End-Break force : 160kgf± 5kgf will not damage any pedal parts.
- Two return springs, inner and outer spring, incorporated to return pedal to idle on release of actuation force.

3. Electrical Conditions
1.0 Environmental Conditions:
Operating Temperature : -40°C ~ +85°C
Storage Temperature : -40°C ~ +105°C
2.0 Electrical Characteristics
2-1 Type of sensing element
2.1.1 Input Voltage(Vcc) : 12V
2.1.2 Operation Current(Iop) : 10mA(Normal), 15mA(Max)
2.1.3 Reverse Polarity : Withstand 10min
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) : MOSFET Switch (Semiconductor Relay Switch)
2.2.1 Switch Continuous Load Current(Io) : Max 60mA (@ 24V)
2.2.2 Switch Operating Current(IF) : 2mA
2.2.3 Switch Resistance(Ron) : 5Ω at Switch On
Current leak max 1μA at Switch Open(ILEAK)
2.2.4 Switch Polarity : No polarity
2.2.5 Switch Load Voltage : 5V, 12V, 24V, 48V,80Vdc
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 : 41°± 1°
4.0 Electrical Connection
AMP J - Serise Connector : for 6 wire 174264 - 2 (Cap)
5.0 Material
Pedal Housing : SS400 (Zn Plating :Yellow)
Pedal Sensor Spindle, Roller Pin : SUS303F
Cable : AVXf, AEXf(0.50㎟)
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 Enviornment 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 to Acceleration 20g (ZERO to PEAK) for 11ms	Normal Operation
Impact Test	Subject to a drop test onto a smooth concrete floor from a height of one meter a total of 6 times	Normal Operation
High voltage Test	APS Signal : After Exposed to 72Volts for 5min IVS Signal : After Exposed to 72Volts for 5min	Normal Operation
Temp. Test	After Exposed to -40°C ~ 85°C (100 cycles)	Normal Operation
Humidity Test	After Exposed to -32°C ~ 70°C (96%)	Normal Operation
Salt Fog Test	After Exposed to Salt Fog for 96 Hours (JIS Z2371)	Normal Operation
Chemical Test	Exposed to 3 second dipping in each of the test fluids, followed by a 3 minutes air dry	Normal Operation
ESD Test	Tested in accordance with IEC 61000-4-2 Spec	25KV(Air Discharge)
EMS Test	As per ISO 11452-2 (2004E)	100V/m

ComeSys Control & Measurement Systems Limited

General Tolerance For Machining (KS B 0412)

0.5~6mm	±0.2	120~315mm	±1.2
7~30mm	±0.3	315~1000mm	±2
8~80mm	±0.5	1000~2000mm	±3
80~120mm	±0.8	2000~4000mm	±4

Property & Confidence
The information contained in this Drawing is the sole property of ComeSys Ltd. Any reproduction in part or as a whole without the written permission of ComeSys Ltd. is prohibited.
http://comesys.net

DR	S.H.Park	11.Nov.16
RE	J.I.Kim	11.Nov.16
AP	H.M.Lee	11.Nov.16

Do Not Scale
Third Angle Projection
Sheet 1 of 1

Name: Electric Accelerator Pedal Ass'y (MTF12)
Application Model: Clark Application (GZX40/50)
Material: ------- Paint & Surface Treatment: -------
Weight: ------- g Heat Treatment: -------
Customer Part No.: 8094279 △1 ComeSys Part No.: FZ12-153-47 Issued: 3