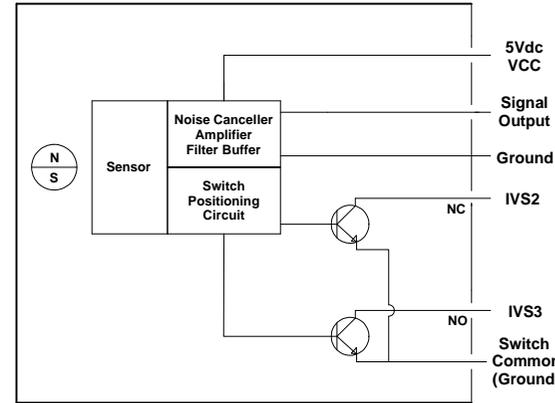


Fig. 1 Circuit Diagram



REVISION HISTORY					
REV	DESCRIPTION	DATE	DR	RE	AP
1	Harness length changed 1100->600mm	13.Jan.09	J.E.Kim	J.Y.Park	H.M.Lee

- General Layout
 - Non - Contact Sensing Technology. This drawing is satisfied with SAE J1843. International Patent Pending.
- 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))
 - End-Break force : 160kgf± 5kgf will not damage any pedal parts.
 - Two return spring, inner and outer spring, incorporated to return pedal to idle on release of actuation force.
- Electrical Conditions
 - Environmental Conditions:
 - Operating Temperature : -40°C ~ +85°C
 - Storage Temperature : -50°C ~ +120°C
 - Electrical Characteristics
 - Type of sensing element
 - Input Voltage(Vcc) : 5Vdc ± 2%
 - Operation Current(Iop) : 10mA(Normal), 11mA(Max)
 - Reverse Pararity : Withstand 10min
 - Electrical Travel : See Fig 2.
 - Independent Linearity : ±2%
 - Signal Load : 10kohms, C=4.7nF Tested.
 - Type of Switch(IVS) : Transistor
 - Switch Max Load Current(Isw) : 30mA
 - Switch Operation Load Current : 20mA
 - Switch Load : >1kohms, C=2x4.7nF Tested.
 - Switch Voltage : 5V, 10V
 - Switch Position
 - Switch Position shall be discussed at PO and fixed at factory before delivery.
 - Signal Integrity
 - The switch supply and signal(s) must be insulated from and independent of the APS supply and signal output.
 - Switching
 - The normally open (N.O) signal of the switch is the electrically nonconductive continuous path.
 - Switch to and from the closed state shall occur bounce free.
 - Mechanical Specifications
 - Mechanical Travel : 17.5 ± 2°
 - Electrical Connection
 - AMP J - Series Connector : for 6 wire 174264 - 2 (CAP)
 - Material
 - Pedal Foot Plate : PA66+GF33%+Anti Static
 - Pedal Bottom Plate : Aluminum (ADC12)
 - Cable : AEXf or AVXf (0.50mm²)
 - Marking
 - Sensor serial number and pedal production number shall be indicated and recorded before despatch at factory.
 - 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.
- Environment Test

Fig. 2 Signal Output

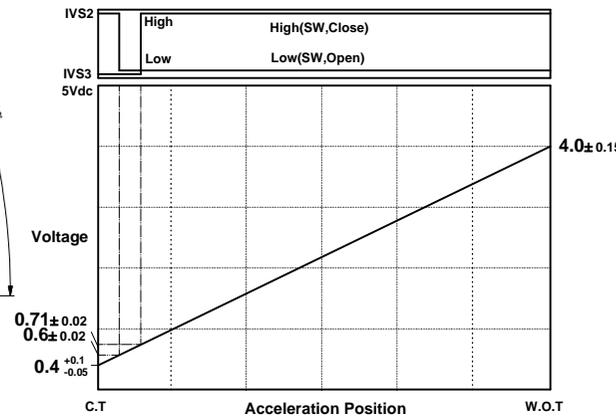
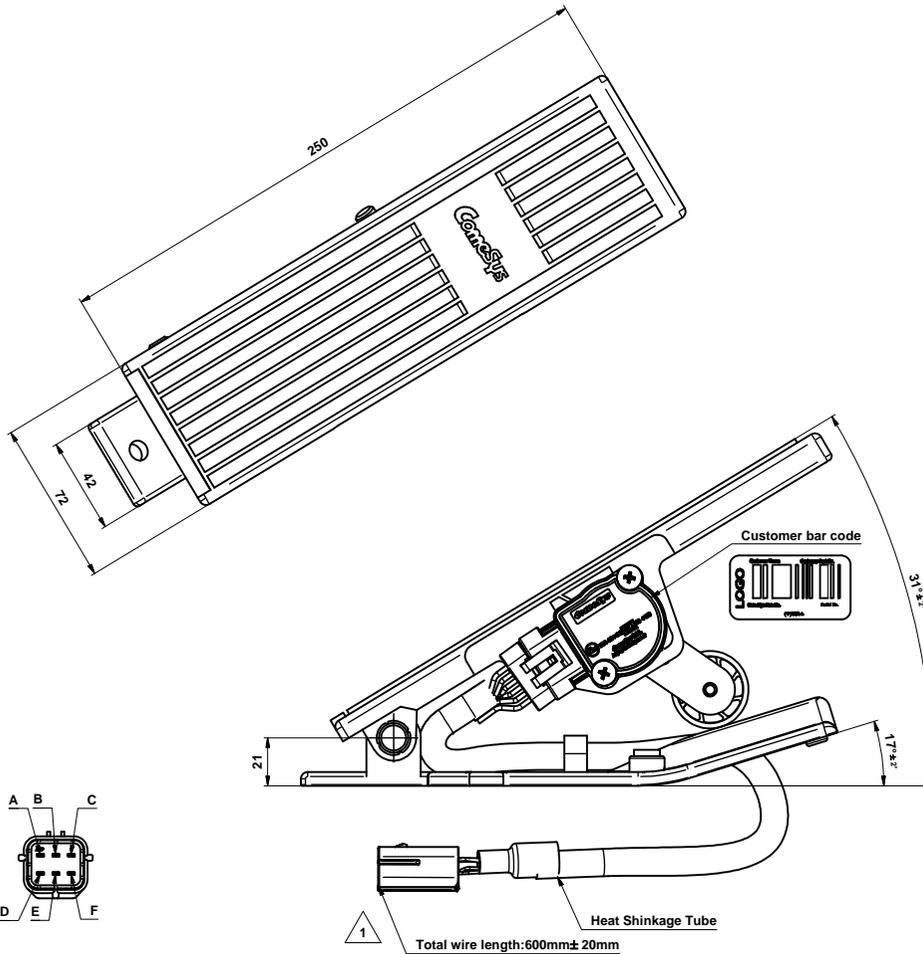
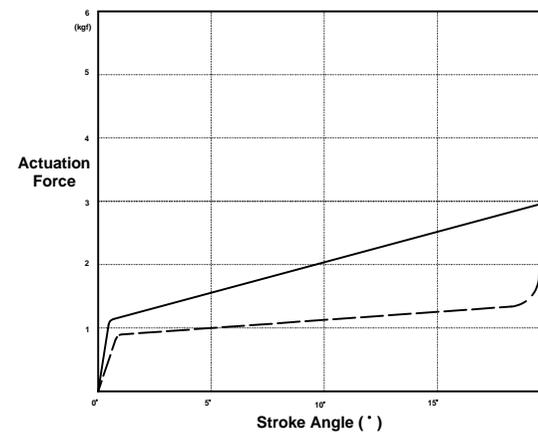
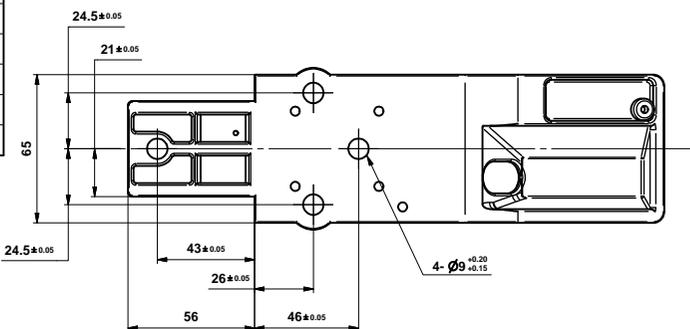


Fig. 3 Pedal Force



Pin Location	Description	Color
A	Power Input, Vcc	Red
B	Pedal Signal Output, Vs	Green
C	Ground	Black
D	Switch Common(Ground)	Yellow
E	IVS3	Blue
F	IVS2	Pink



General Tolerance For Machining: KS B 6111		Priority & Confirmation		Name	
±0.1mm	±0.05mm	±0.1mm	±0.05mm	Electronic Accelerator Pedal Assy (MTF7)	
±0.2mm	±0.1mm	±0.2mm	±0.1mm	Application Model	
±0.3mm	±0.15mm	±0.3mm	±0.15mm	Hyundai Wheel Loader	
±0.4mm	±0.2mm	±0.4mm	±0.2mm	Cummins ISM engine	
±0.5mm	±0.25mm	±0.5mm	±0.25mm	Material	
±0.6mm	±0.3mm	±0.6mm	±0.3mm	Paint & Surface Treatment	
±0.7mm	±0.35mm	±0.7mm	±0.35mm	Weight	
±0.8mm	±0.4mm	±0.8mm	±0.4mm	Heat Treatment	
±0.9mm	±0.45mm	±0.9mm	±0.45mm	Customer Part No.	
±1.0mm	±0.5mm	±1.0mm	±0.5mm	21FT-15190	
±1.1mm	±0.55mm	±1.1mm	±0.55mm	Company Part No.	
±1.2mm	±0.6mm	±1.2mm	±0.6mm	FY7-312-13A	
±1.3mm	±0.65mm	±1.3mm	±0.65mm	Sheet 1 of 1	
±1.4mm	±0.7mm	±1.4mm	±0.7mm	Issued	
±1.5mm	±0.75mm	±1.5mm	±0.75mm	1	