

Contacting Pedal Assembly

TYPICAL APPLICATIONS:

Accelerator pedal for electronic throttle control systems

Features/Benefits:

- Fully redundant, dual output contacting electrical sensor integrated into pedal assembly
- Analog output signal
- Dual load/return force generation in compliance with FMVSS 124
- Self adjusting hysteresis control
- Mechanical kickdown feature optional
- Compact size, approximate weight - 300 g
- Six pin connector
- Optional electrical output customizable to customer-specific application requirements
- Pedal arm configuration customizable to customer-specific application requirements



TYPICAL SPECIFICATIONS:

ELECTRICAL

Linearity (absolute):	See Figure 1
Rotation (electrical):	0° to 17°
Rotation (mechanical):	0° to 18°
Typical Input Voltage:	5 V _{DC}
Overall Voltage:	15 V _{DC}
Track Correlation:	See Figure 3

MECHANICAL

Pedal Stepping Force:	See Figure 2
Internal End Stop Strength:	900 N
Sideloading Strength:	300 N

DURABILITY

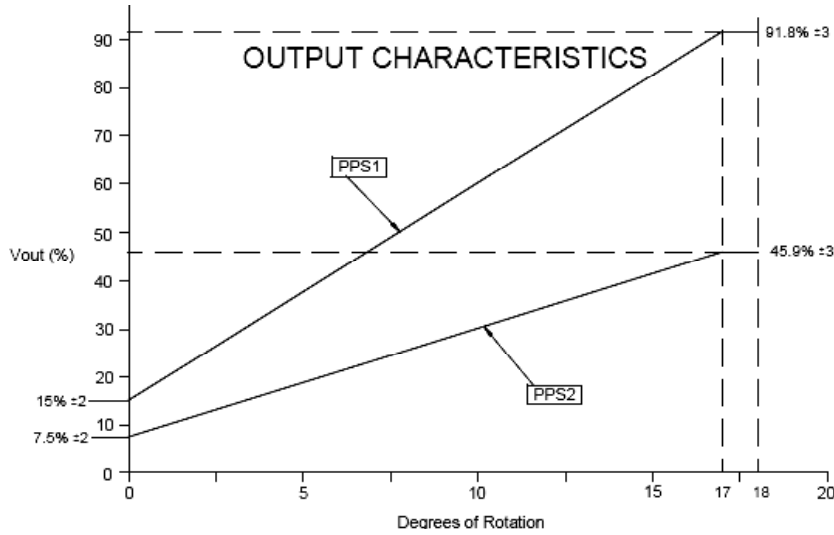
Operating Temp. Range:	-40° to 80°C
Life Cycles:	3 x 10 ⁶ cycles
Vibration:	5 to 100 Hz @ 0.2 to 1.6 g; 8 hrs. each plane
Thermal Shock:	-40° to 80°C; 500 shock cycles
ESD (powered):	± 15 KV, terminal discharge

ENVIRONMENTAL

Salt Spray:	24 hrs. (5% NaCl)
Humidity:	144 hrs. @ 95% RH



FIGURE 1 — TYPICAL ELECTRICAL OUTPUT



Standard output shown. Both outputs are fully adjustable to suit customer-specific needs.

FIGURE 2 — TYPICAL MECHANICAL OUTPUT

MECHANICAL OUTPUT CHARACTERISTIC
FIGURE NO. 2

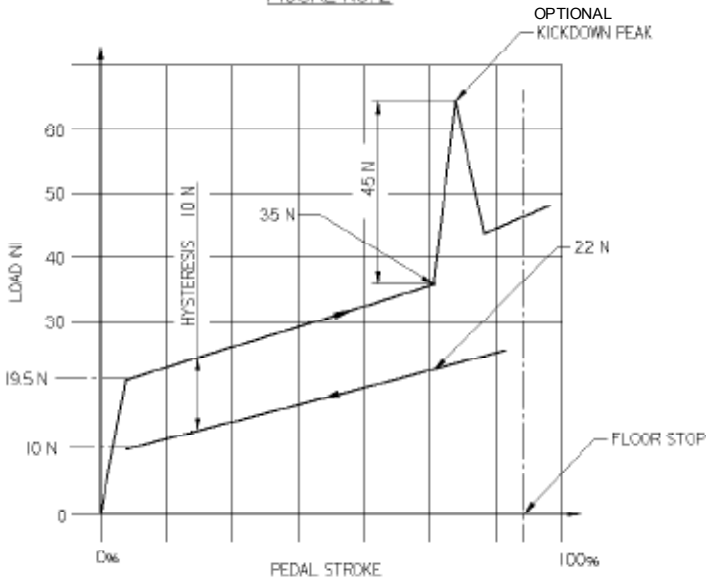
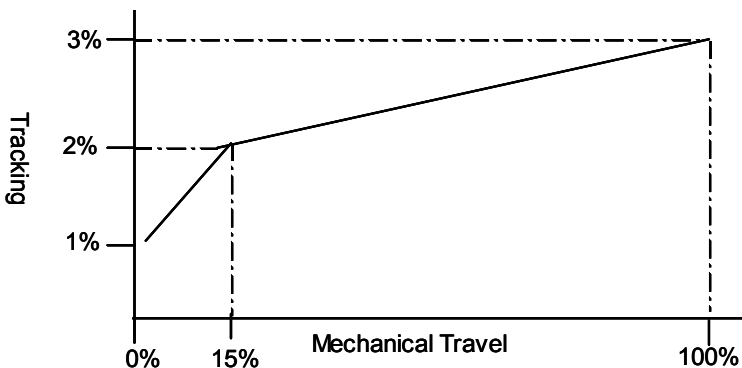


FIGURE 3 — TRACK CORRELATION



Signal 2 required defined with respect to Signal 1

$$\frac{\text{Signal 1}}{\text{Supply 1}} = 2 \times \frac{\text{Signal 2}}{\text{Supply 2}}$$

Tracking value error as per Figure 3 shown

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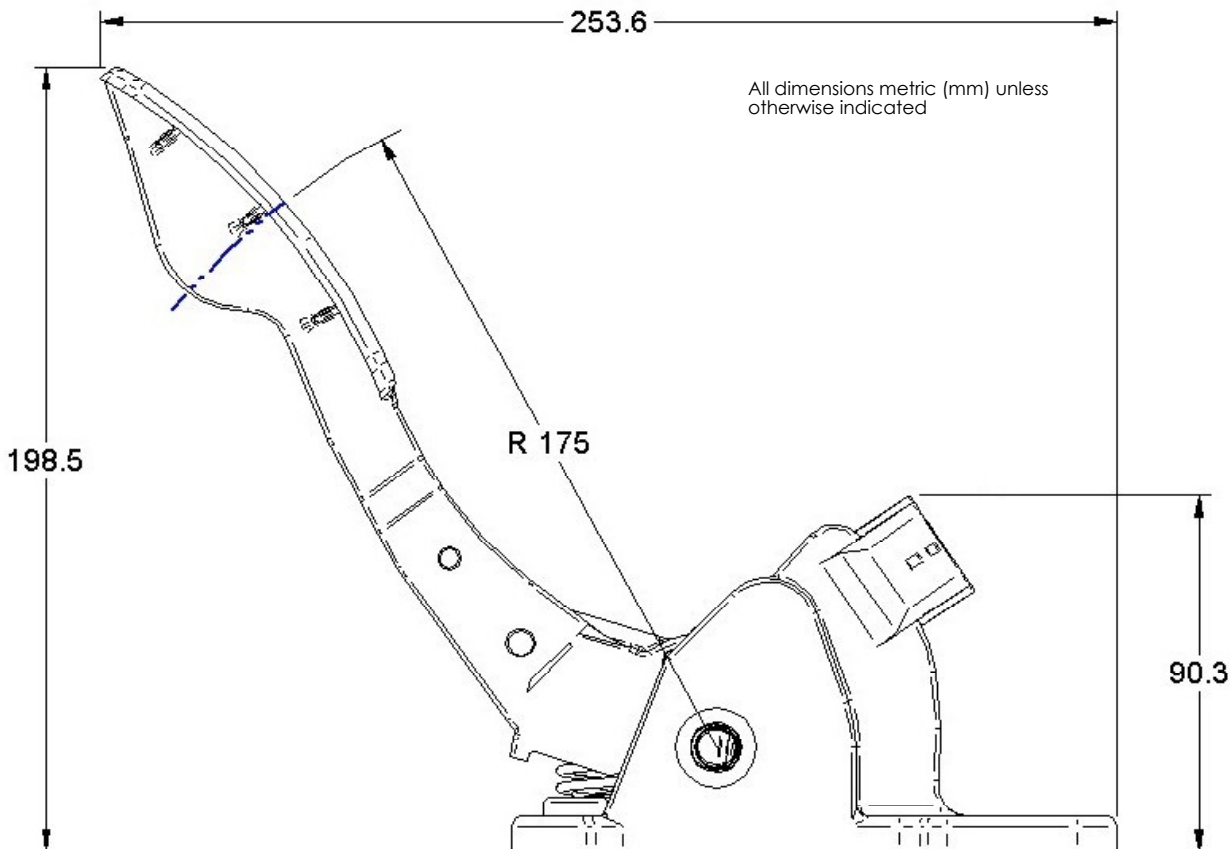
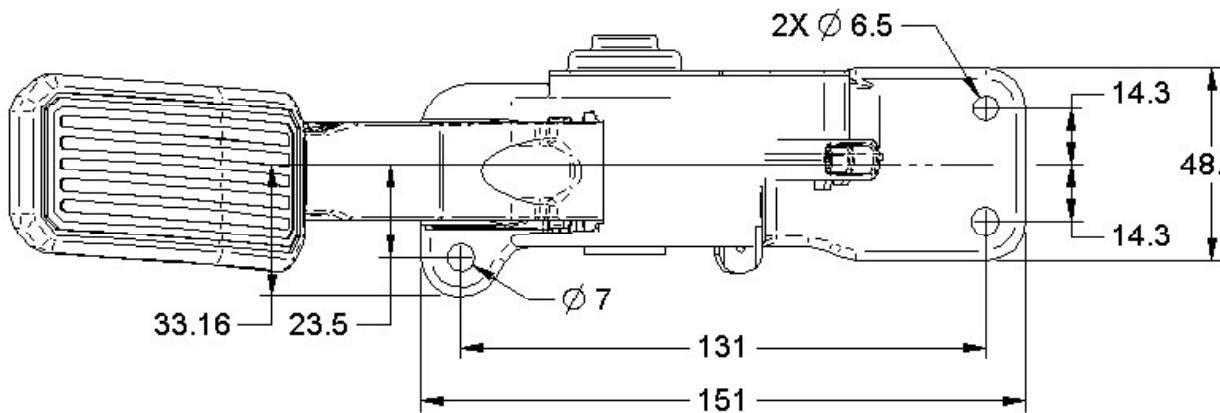
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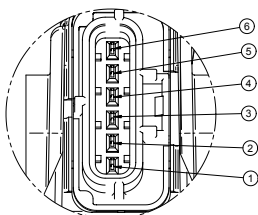
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DIMENSIONAL DETAILS



CONNECTOR PIN-OUT INFORMATION



PIN NUMBER	DESIGNATION
1	GROUND PPS2
2	GROUND PPS1
3	OUTPUT PPS1
4	SUPPLY PPS1
5	SUPPLY PPS2
6	OUTPUT PPS2