

Pedal Force Sensor

(RLACS282)



The pedal force sensor is designed to measure load applied to the brake, accelerator or clutch pedal. This is particularly useful when carrying out brake tests such as SAE J2909 or ECE regulation 13-H (Braking Assist Systems) as well as measuring other acceleration, deceleration or transmission shift events.

Thanks to its low-profile design, large contact area and universal mounting bracket, the sensor is easy to install and remove. A high overload protection (150% of FS) also prevents damage in the event of an emergency stop.

Other key features include an anti-slip spherical loading surface to minimize the effects of off-axis loading, very stable temperature compensation and brake pedal trigger compatibility.



Features

- Compact, with a 24.5 mm overall height (27.5 mm when mounted on the pedal mounting bracket)
- Easy to install and remove
- Measurement range 0.5 – 150 kg (1470.99 N)

Example Setup



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Specifications

Technical	
Measurement range (kg or N)	0 – 150 kg (1470.99 N)
Overload limit (kg or N)	225 kg (2206.5 N)
Measurement accuracy (% FSO)	1%
Zero balance/offset (%/rated output)	2% FSO (*0.1 Volt)
Non-Linearity (%/rated output)	<± 0.5% FSO
Hysteresis (%/rated output)	<± 0.5% FSO
Output range (V)	0-5 V DC

Environmental	
Operating Temperature range (C)	-10°C - 40°C
Temperature effect on zero (%/rated output/C)	< ± 0.007 %/°C FSO
Temperature effect on output (%/applied load/C)	< ± 0.005 %/°C FSO
Storage Temperature	≈-20°C - +80°C

Power	
Voltages	min 8.5 Volts, max 28 Volts
Current Draw	8 mA typical

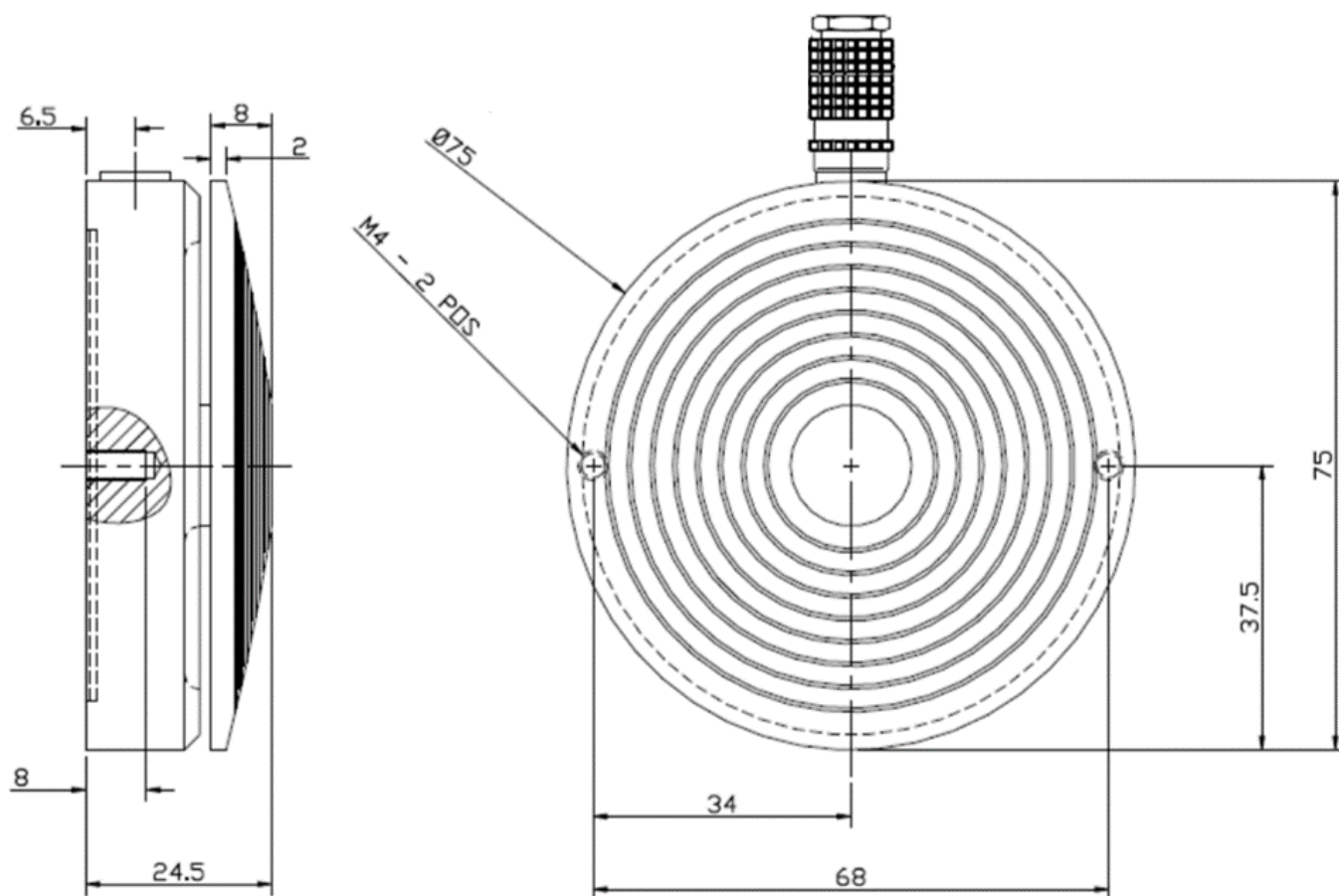
Physical	
IP Rating	IP66
Material	Stainless Steel
Weight	Load cell: 435g, Bracket: 250g, Bolts: 50g Total: 740g
Cell Dimensions (Diameter x Height)	75 mm x 24.5 mm
Bracket Dimensions (Length x Width x Height)	146.2 mm x 93.3 mm 19mm

* The pedal force transducer has a zero load output of approximately 0.1 Volts.

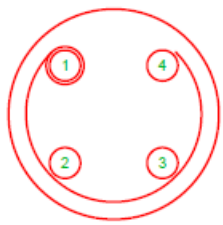
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Dimensions



Pin Assignments

Pin	Signal	
1	+Supply	
2	Common	
3	Common	
4	+Output	

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Package Contents

Description	Product Code
1 x Pedal pressure load cell with internal SGA	OL05910
2x Pedal attachments (top & bottom)	MECH0345/346
2 x M8 x 60mm socket cap head A2 threaded to the head	MKX60SKTCAP
2 x M8 x 100mm socket cap head A2 threaded to the head	MKX100SKTCAP
2 x Socket screws	M410KH10MCZ
1 x 4 Way LEMO to unterminated wire cable (2m)	RLCAB148