Door Handle Force Sensor
(RLACS344)

Quantifying Door Operation for ADAS Testing and Development

Accurately measure both the activation force and the change in force applied to vehicle door handles and operating mechanisms with the VBOX Door Handle Force Sensor.

This highly sensitive sensor provides a voltage output proportional to the input force, offering invaluable data for the Euro NCAP 'Dooring' assessment.

The measured force can be directly mapped to user-defined testing requirements such as '$T_{operate}$', 'T_{Latch}' and 'T_{open}'.

Features

- **Precise Force Measurement**
  Delivers a voltage output directly corresponding to the force applied, enabling highly accurate quantitative analysis of door handle operation.

- **User-Definable Operational Regions**
  Enhance your Dooring analysis with the ability to define critical force thresholds including:

  - **$T_{operate}$:** Force required to initiate the door handle lever up to the point of T_{latch}.
  - **T_{latch}:** Force at which the door latch begins to disengage.
  - **T_{open}:** Force at which the door fully opens.

- **Simple Integration**
  Designed for easy placement on door handles or door operating mechanisms and straightforward connection to the analogue voltage inputs of your data acquisition system.

- **Robust & Reliable**
  Built to withstand the demands of automotive testing, ensuring consistent and repeatable results. The sensor pad is replaceable, allowing quick swaps if damaged.

- **Real-Time Feedback**
  Provides instant feedback when used with VBOX Test Suite.

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Specifications

Description	Values
Output Type	Linear voltage dependent on power source
Operating Temperature range (C)	-20°C to +85°C
Sensing Range	20 g to 5 kg
Size	Sensor pad = Ø30.5 mm Active area = Ø25.42 mm

Wiring

Wire Colour	Function	
Red	Power	
Black	Ground	
Yellow	Signal	
Blue	Signal Ground	