

→ Pinch Force Measurement System for Automotive Sunroofs, Power Windows

FM200

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Safety ensured by Pinch Force Measurement

The **FM200** from DriveTest is an electronic pinch force measuring system for power driven automotive sunroofs and windows. Typical use includes R+D and production testing in the automotive industry. Technical safety agencies also comprise a growing application area. Combining rugged construction with precision, the advanced mechanical design delivers exact measurements, even after years of service in an industrial environment. The FM200 has been tested and certified by the German TÜV Nord.

Fast and easy performance of repetitive measurements is an important aspect of standard test scenarios. DriveTest has responded to this requirement by developing software which streamlines the measurement process and drastically reduces documentation effort. Measurements can

be entered in a PC, analysed, and documented with a minimum of user entries. The investment in an FM200 system repays itself within a short time.

DriveTest is one of the pioneering companies in the field of pinch force measurement and offers a broad range of different systems for a variety of applications. Major customers in the automotive industry include Webasto, Daimler Chrysler and BMW.

- **Dependable** – certified by the TÜV Nord
- **Applicable standards** – 2000/4 EG (74/60 EWG), US Standard FMVSS 118
- **Precision measurements** – uses frictionless guides and single point load cell
- **Robust construction** – casing manufactured from durable aluminium and stainless steel for long service life in industrial environments
- **Ease of Use** – single button operation, separate sensor and electronics allows remote operation up to 3 m
- **Supplied with all components** – high-quality transportation case and software included, no additional items to purchase
- **Professional, feature-rich software** – PinchPilot offers complete functionality
- **Complete customer support** – in-house calibration service, standards update service ensures use of newest standards version.
- **Flexible Adaptation** – wide range of measurement fixtures and custom adapters available from DriveTest



→ Technical specifications FM200

Sensor FM200

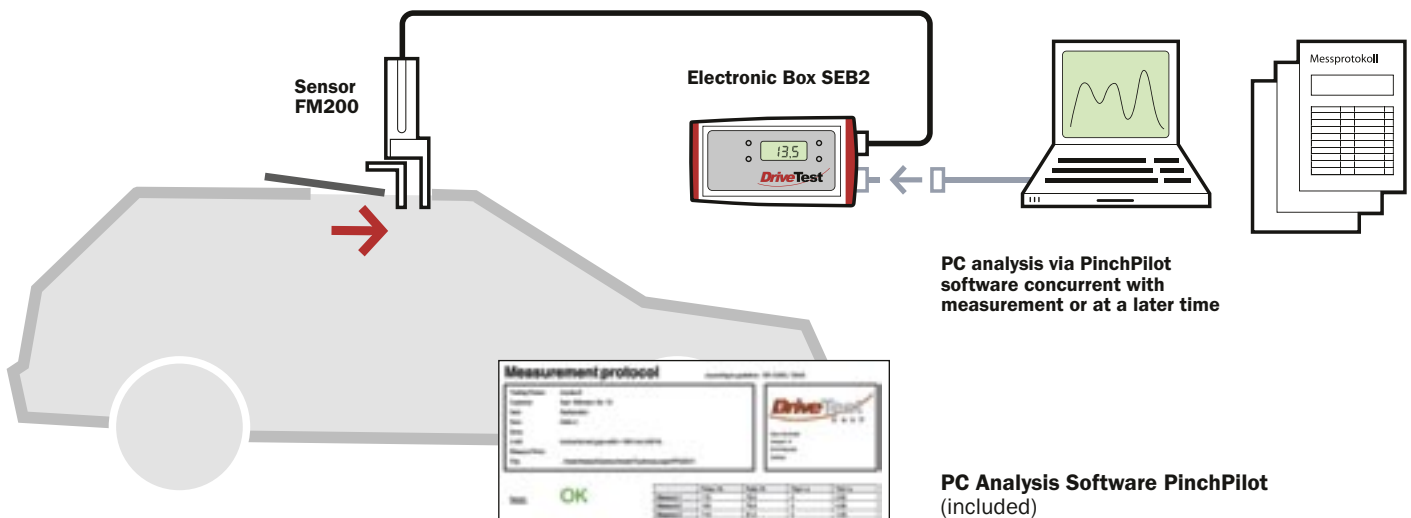
Measurement Range	0 – 300 N
Measurement Tolerance	+/- 3 N or 3 %, whichever is greater
Stiffness	10, 20, 25, 65 or 100 N/mm
Gap width	minimum 4 mm
Area	50 x 50 mm
Measurement Technique	Strain Gauge Bridge
Size	240 x 85 x 50 mm
Weight	1.3 kg

Electronic Box SEB2

- Complete measurement unit in combination with sensor (PC optional when measuring)
- LCD Display
- Powered via one 9 V battery
- Onboard clock
- Storage for approx. 100 measurements
- Sensor and PC interfaces
- Displays peak force and pass/fail assessment

PC Analysis Software PinchPilot

- Multi-Language (D, GB, I, F, E)
- Graphical display of Force vs. Time
- Calculation of relevant parameters
- Assessment with respect to different standards
- Support for user defined standards
- Printed reports
- Data export (Excel, Word)



System Requirements

- Operating System Windows 98 SE, NT, 2000, XP
- CPU Pentium ≥ 133 MHz
- RAM ≥ 32 MB
- Free Disk Space ≥ 50 MB
- CD ROM Drive
- RS232 or USB Interface

What's included

- Sensor with 3.5 m connection cable
- Separate data logging module (Electronic Box SEB2) with LCD display, LED display, membrane input key, and serial interface
- 9 V Battery
- Aluminium transportation case with foam inserts for ease of storage and transport
- PC connection cable (RS232, USB)
- CD with PinchPilot PC analysis software and documentation
- Users Manual in English and German
- Calibration certificate

