

# Force Sensitive Resistor (FSR) Sensor Data Sheet

FSR 24042015

## SPECIFICATIONS

- > **Range:** up to 150Kg (depends on the type)
- > **Response Time:** <1.2ms
- > **Repeatability:**  $\sim\pm 2.5\%$  (of full scale)
- > **Drift:** <7%
- > **Consumption:**  $\sim 0.4\text{mA}$

## FEATURES

- > Thin film technology
- > Pre-conditioned analog output
- > High signal-to-noise ratio
- > Shielded miniaturized cables
- > Medical-grade raw data output
- > Ready-to-use form factor

## RESEARCH APPLICATIONS

- > Biomechanics
- > Kinematics
- > Ergonomics
- > Reaction time measurement
- > Gait analysis
- > Load distribution assessment
- > Human-Computer Interaction
- > Robotics & Cybernetics

## GENERAL DESCRIPTION

From reaction time measurement to load distribution in shoe insoles, our thin film force sensors offer uncompromised performance in the most demanding applications. The low profile membrane and miniaturized signal conditioning circuitry are ideal for minimally intrusive setups. Multiple sensing area dimensions and measurement ranges are available, enabling forces up to 150Kg, although other options are also available upon request. Examples:

<http://bit.ly/1FnY0aJ>

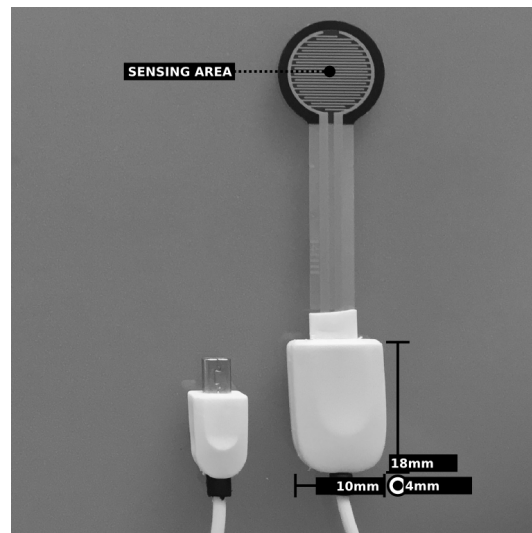


Fig. 1. Example of a Type 3 force sensor.



Fig. 2. Typical raw force data (acquired with biosignals).



PLUX – Wireless Biosignals, S.A.  
Av. 5 de Outubro, n. 70 – 8.  
1050-059 Lisbon, Portugal  
[plux@plux.info](mailto:plux@plux.info)  
<http://biosignalsplux.com/>

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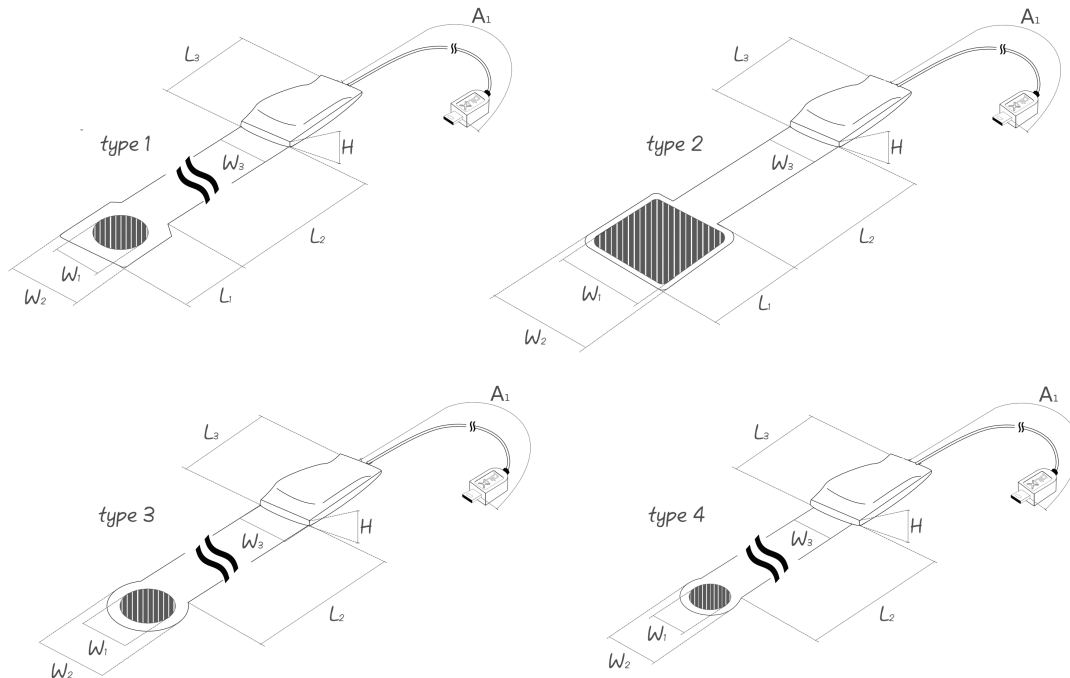
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## PHYSICAL CHARACTERISTICS

(in cm)	Type 1	Type 2	Type 3	Type 4
<b>W1</b>	0.95	3.80	1.27	0.50
<b>W2</b>	1.40	4.37	1.83	0.76
<b>W3</b>	11.00	7.60	18.3±0.5	6.4±0.5
<b>L1</b>	17.00	4.00	3.60	3.10
<b>Thickness</b>	0.02	0.05	0.05	0.03
<b>A1</b>	105.00			



## ORDERING GUIDE

Reference	Package Description
FSR1	Type 3 Force Sensitive Resistor (FSR) sensor (Fig. 1) with standard physical characteristics and a random cable sleeve color
FSR1-A1-T-S	Force Sensitive Resistor (FSR) sensor of type T built with custom length A1 and custom sleeve color S; for standard physical characteristics in A1 or S use 0.  Examples: > FSR1-200-0-0: Type 3 FSR with 200cm cable A1 and random cable sleeve color > FSR1-0-1-Yellow: Type 1 FSR with yellow cable sleeve