

Sensing Fabrics is a provider of cutting-edge technologies for the **textile market**. Our patent-based technology is based on **conductive printed inks** with sensitive properties.

## PRESENCE TEXTILE SENSOR

The result of a specific combination of materials and techniques, allows the creation of a textile pressure sensor of resistive type that can be applied for the creation of switch devices in following products and markets.

**Presence Sensor Carpets:** to count the number of people that enter or exit a booth, a seminar, a pavilion, or a congress ... using a very accurate tool.

**Presence Sensor Seats:** for monitoring to be integrated on seats in private and public transportation



## TECHNICAL DATA

Feature	Unit	Single layer	Multi layer
<b>Operating conditions</b>			
Temperature range in use <sup>(1)</sup>	[°C]	-5 – 65	-5 – 65
Relative humidity range in use	[%]	0-100	0-100
# estimated cycles		>10 <sup>7</sup>	>10 <sup>8</sup>
Pressure strength	[N]	0,5 -10	1 -12
Wash/dry		Hand-wash/in air on a hanger	Hand-wash/in air on a hanger
Ironing		Yes 150°C	Yes 150°C
<b>Physical characteristics</b>			
Minimum thickness of the sensor layer	[µm]	200	500
Distance between buttons	[mm]	10	2
<b>Electrical characteristics</b>			
Optimal SWITCH resistance	[Ω]	10 <sup>4</sup>	10 <sup>6</sup> -10 <sup>7</sup>
SWITCH rising time	[ms]	20	30
SWITCH falling time	[ms]	100	120
Sensitivity (0,2-0,5N)	[% detection error]	1	0,2