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Altri autori (Persone)	RipkaPavel TipekAlois
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Nota di contenuto	Modern Sensors Handbook; Table of Contents; Chapter 1. Pressure Sensors; 1.1. Introduction; 1.2. Pressure; 1.2.1. Pressure as a physical quantity; 1.2.1.1. Static pressure; 1.2.1.2. Units; 1.2.2. Absolute, relative and differential sensors; 1.2.3. Fluid physical properties; 1.2.3.1. Liquids; 1.2.3.2. Gases; 1.2.3.3. Sensor pneumatic connection influence; 1.3. Pressure ranges; 1.3.1. Vacuum and ultra-vacuum; 1.3.2. Middle range pressure; 1.3.3. High pressure; 1.4. Main physical principles; 1.4.1. The sensing device; 1.4.2. Sensors with elastic element 1.4.2.1. Conversion by resistance variation 1.4.2.2. Conversion by capacitance variation; 1.4.2.3. Conversion by inductance variation; 1.4.2.4. Conversion by piezoelectric effect; 1.4.2.5. Conversion by oscillators; 1.4.2.6. Optical conversion; 1.4.2.7. Servo controlled sensors with balance of force; 1.4.3. Vacuum sensors; 1.4.3.1. Ionization pressure sensors; 1.4.3.2. Heating effect sensors; 1.5. Calibration: pressure standards; 1.5.1. Low pressure standard; 1.5.2. High pressure standard; 1.6. Choosing a pressure sensor; 1.7.

References; 1.8. Other pressure sensor manufacturers
1.9. Bibliography
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3.2. Flow measurements based on the principle of difference in pressure

Sommario/riassunto

Modern sensors working on new principles and/or using new materials and technologies are more precise, faster, smaller, use less power and are cheaper. Given these advantages, it is vitally important for system developers, system integrators and decision makers to be familiar with the principles and properties of the new sensor types in order to make a qualified decision about which sensor type to use in which system and what behavior may be expected. This type of information is very difficult to acquire from existing sources, a situation this book aims to address by providing detailed coverag
