Pressure sensor checklist

Practical decision aid for design and integration

This checklist helps you make the right choices in advance when selecting a pressure sensor for machines, modules, or embedded systems. This prevents redesign, instability, or surprises in series production.

Step 1: Define functional requirements

□ What type of pressure are you measuring (absolute/relative/differential)?
□ What medium are you measuring?
□ What is the average measuring range of the pressure?
□ What safety margin is necessary for your application?
□ What accuracy do you actually need?

Step 2: Determine output and interface

□ Analog or digital?
□ Does the signal match your control system (e.g., I²C, SPI, 0–10 V)?
□ Does the required supply voltage match the available supply voltage?
□ Are error detection or diagnostic functions required?

Step 3: Assess stability and error margins

□ Is stability over time more important than peak accuracy?
□ What is the expected drift over the lifetime?
□ How sensitive is the sensor to temperature influences?
□ Are hysteresis and repeatability acceptable for series production?

Step 4: Evaluate PCB integration and footprint

□ Does the sensor fit within your PCB layout?
□ Is the placement robust against noise and thermal influences?
□ Does the sensor impact other components?

Step 5: Ensuring production and lifespan

□ Is the sensor available for long-term series production?
□ Are tolerances and reproducibility sufficient?
□ Are documentation and traceability in order?
□ Do the minimum order quantities (MOQ) match your production volume?

Common pitfalls

□ Measurement range chosen too wide
□ Incorrect media compatibility measured
□ Sensor selection without target price (risk of excessive end product cost)
□ Only accuracy considered, not stability
□ Prototype behavior equated with series behavior

How Teleson can help you

Are you unsure about one or more steps in this checklist? Teleson is happy to help you find the most logical solution. We help you make choices in your search, supply chain, and all related questions.

Please contact us for advice on selecting your sensors.