



The **Philips Avalon CL** is a wireless fetal monitor system. With continuous monitoring during the antepartum period, labor, and delivery. The Avalon CL's wireless transducers make it easier for the patient to move freely without sacrificing the essential monitoring of the baby. Reducing the stress wires can cause for both mother and baby. The cableless transducers can easily transmit fetal and maternal vital signs to a monitor at a base station in your medical facility. The Philips Avalon system can measure the fetal heart rate of twins and triplets along with maternal NIBP and SpO2. The Smart Pulse technology built into the Avalon adds safety measures for maternal parameters when using the Toco transducer. The system uses CCV to compare the heart rates of the mother and baby to reduce the risk of mistaking one of the heart rates when there may be multiple heart rates.

## Features

- Can monitor multiple heart rates, twins, triplets, and mom.
- Cableless, waterproof, and lightweight transducers.
- Allows the expecting mother to be continuously monitored during bathings or ambulation.
- On-demand audible patient call from the fetal monitor.
- Reliable fetal parameter signal quality with a line-of-sight operating range of up to 100 m/300 ft.
- Automatic out-of-range notification for the patient.
- User-friendly intuitive controls at the display of the connected fetal monitor.
- High capacity, rechargeable Lithium-Ion batteries, combining an operating time of more than 8 hours per charge cycle with a short recharge time of less than 3 hours.
- Easy and quick assignment of transducers and CL Pods by simply docking them at the base station.
- The base station connects to any fetal sensor socket on the Philips Avalon FM20, FM30, FM40, and FM50 fetal monitors, or to the rear telemetry connectors on the FM40 and FM50.



# Specifications

## Dimensions

Height: 2.9 in (74 mm)  
Width: 13.7 in (349 mm)  
Depth: 7.2 in (183 mm)  
Weight: 2.2 lb (0.985 kg)

## Transducer Dimensions

Toco +MP:  
Size (diameter/height): 2.9/1.4 in (75.5/36.6 mm)  
Weight: 123 g  $\pm$ 10% (4.3 oz  $\pm$ 10%)  
US Transducer:  
Size (diameter/height): 2.9/1.4 in (75.5/36.6 mm)  
Weight: 131 g  $\pm$ 10% (4.6 oz  $\pm$ 10%)

## Transducer Battery

Type: integrated rechargeable li-ion battery with a battery gauge and cycle Counter  
Runtime (fully Charged battery): min. eight hours  
Life: > 500 charges/discharge cycles or older than 4 years  
Transducer Storage Time:  $\geq$  1 year at 25°C (77°F) (battery should be charged to 40% - 50% every six months)  
Recharge Time: 100% charge  $\geq$  3.0h

## Enviromental (Transducer and Base Station)

Operating temperature range: 0-45°C (32-113°F)  
Operating transducer temperature: 0-40°C (32-113°F)  
Storage transducer temperature: -20°C- +60°C (-4-140°F)  
Operating humidity range: <95% relative humidity @ 45°C (113°F)  
Storage humidity range: <95% relative humidity @ 60°C (140°C)

## Toco

Measurement Method: Strain Gauge Sensor Element  
Sensitivity: 1 unit = 2.5 g  
Measurement Range: 400 units  
Signal Range: 0-127 units  
Maximum offset range: -300 units  
Baseline setting: 20 units  
Auto Offset Connection: 3 seconds after connecting the transducer, the Toco value is set to 20 minutes  
Auto Zero Adjust: Toco value is set to zero following a negative measurement value for 5 seconds

## Maternal Pluse from Toco

Emitted light energy:  $\geq$  15m W  
Wavelength range: 780-1100nm  
Range: 40-240 bpm  
Accuracy:  $\pm$ 2% or 1bpm, whichever is greater  
Update rate: every 4 seconds

