

# List of sensor fault filter methods

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### Abstract

This document is meant to list up different methods for sensor fault filtration. Furthermore, all methods should be classified whether they can handle specific fault types or not. As we assume the sensor signal as the only input of the fault detection methods, another classification is done concerning the dynamic of the input signal. This classification is done by deciding whether a method is able to filter a specific fault type in a high/middle/low dynamic signal.

## 1 Preparation

### 1.1 Fault model

### 1.2 Process model

## 2 Filter classification

FIR-Filter	CIC-Filter
	Medianfilter
	Mittelwertfilter / gleitender Mittelwert
	Gleitende gewichtete Mittelwerte
	Reduktionsfilter
	Binomialfilter/Gausfilter
IIR-Filter	Wellendigitalfilter

Latticefilter

Kaskadierte IIR-Filter

adaptive Filter

Transversalfilter

Kalman Filter

Bayesscher Filter

Multiratenfilter

Frequenzverzerrte Filter

wrapped FIR

wrapped IIR